AAFPRS FALL MEETING

Co-chairs: S. Randolph Waldman, MD and Donn R. Chatham, MD

Los Angeles, CA
September 22-25, 2005
(Preceding the AAO-HNS Foundation Meeting)
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MESSAGE FROM THE CHAIRS

Let us welcome you to the 2005 Fall meeting, which we believe will be a special educational experience. Our sincere desire is to offer attendees a rich, full meeting which contains the latest information not only on facial plastic surgery, but also on important day-to-day issues like practice management, how to decipher technological advancements, understanding the evolving world of beauty, and debating the pros and cons of various therapeutic options.

We also want this meeting to be fun, lively, with spirited controversy, and new options for everyone.

For the first time, we will be offering a “4 day pass” universal ticket, one which allows attendance at whatever you want...no added costs for courses or learning sessions. The morning plenary sessions will follow a theme beginning with concepts of beauty, including ethnic challenges, and will flow into the next day with a presentation on facial plastic surgery controversies, as we explore the differences of opinion that expert surgeons possess. The third session will feature invited guest speakers from other specialties, and recognize that not all outcomes are perfect in the “Unhappy Patient” session.

Our John Conley lecturer, Nancy Etcoff, PhD of Boston, is the author of a provocative best selling book Survival of the Prettiest and shares her research with us during the Thursday luncheon. Later that day, we offer one and 2-hour courses covering subjects from A-Z and a session with live patient demonstrations of injectable fillers.

Friday morning, we will hear from our Jack Anderson lecturer, Patrick Soon Shiong, MD, who will enlighten us with his talk on his latest scientific research. In the afternoons of Friday and Saturday, we will offer 4-hour intense learning sessions, each focused on one theme and each directed by capable faculty who will assemble their teams of expert facial plastic surgeons to cover in depth the issues and techniques that we feel will give attendees useful, state-of-the-art information.

Sunday morning courses have been selected to encourage those AAO-HNS physicians who are arriving early to register for and attend this one morning of subjects with a more general appeal.

For the first time, we are hosting a fine art exhibit, featuring works from our own surgeon artists, which will be held in conjunction with our fundraiser Saturday night. In addition to having fun, attendees will be able to view and bid on works of art, perhaps acquiring an attractive piece as well as helping raise money for the AAFPRS Foundation. The fundraiser at a private home in Beverly Hills Saturday night will be filled with excitement as guests participate in the auction and Celebrity Poker.

There will be other new and unique twists. Since we are in Los Angeles, we have tried to combine the themes of education, show business, the arts and having fun... “practicing in the real world but having fun doing it...” We hope that you will take full advantage of the variety that this meeting offers.

S. Randolph Waldman, MD

Donn R. Chatham, MD

MESSAGE FROM THE PRESIDENT

Welcome to Los Angeles and our annual fall meeting. We have traversed the country, from the heart of Times Square in New York City to Los Angeles, the city of glitz and glamour; the city where facial plastic surgery appears more pervasive and open than anywhere else. Our course directors, S. Randy Waldman, MD and Donn R. Chatham, MD, are truly masters of meeting management. No longer do you have to decide how many instructional courses to take, the small increase in registration is far offset by unlimited attendance at over 50 instructional courses. Additionally, there will be 10 intense learning sessions with four hours, or more, of in depth study on topics ranging from office management to advanced surgical techniques.

Our guest speakers also represent both coasts and epitomize both mind and body. Nancy Etcoff, PhD, is a psychologist from Harvard Medical School and a renowned expert on the perception of beauty and its effects on human development and interaction. Patrick Soon Shiong, MD, MSc, performed the first pancreatic transplant at UCLA as a young surgeon, and is one of the nation’s foremost researchers in nanotechnology; creating anti-cancer and anti-infective drugs that purport to be more effective yet with fewer side effects on the body.

The Presidential Guest of Honor is William H. Friedman, MD. He is one of the unsung heroes of facial plastic surgery. He was an early advocate for the right of otolaryngologists to perform both facial plastic surgery and head and neck surgery and excels as a teacher and practitioner of both.

Our Saturday fundraiser promises to be filled with fun and excitement as we mingle with our colleagues and celebrities playing Celebrity Poker and participating in an art auction. Our sincere thanks to Dr. and Mrs. Paul S. Nassif for hosting the event at their lovely Beverly Hills home.

This meeting is sure to be one of the most diverse and outstanding productions the academy has offered. I would like to thank the course directors and many speakers in advance for their time and efforts on behalf of the AAFPRS Foundation.

Steven J. Pearlman, MD
SCHEDULE-AT-A-GLANCE
All scientific sessions, courses, workshops, and social events will be held at the Westin Bonaventure Hotel in Los Angeles, California, unless otherwise noted as “off-site”.

WEDNESDAY, SEPTEMBER 21, 2005
6:30am-7:30am Group VP Breakfast Meeting
Santa Anita C
7:30am-3:00pm Committee Meetings
8:00am-5:00pm AO ASIF Craniomaxillofacial Surgery
Emerald Bay
Noon-5:00pm Registration
California Foyer
3:00pm-10:30pm Board Meetings
Santa Anita A and B

THURSDAY, SEPTEMBER 22, 2005
6:30am-6:00pm Registration
California Foyer
7:30am-12:45pm General Session (Panels/Paper Presentations)
San Francisco Ballroom
8:00am-5:00pm OFPSA Program
Beaudry B
10:00am-11:30am Editor’s Breakfast (By Invitation Only)
Santa Barbara C
10:00am-4:00pm Exhibition
Pasadena Ballroom
12:45pm-1:50pm John Conley Lectureship Luncheon
Lecturer: Nancy Etcoff, PhD
San Diego Ballroom
1:50pm-2:00pm Grants and Awards Presentation
San Diego Ballroom
2:00pm-6:00pm Instruction Courses (1 through 34)
Emerging Trends: Injectables, Fillers, and Non-Ablative Laser Demonstration
Avalon
6:00pm-8:00pm Exhibition
Pasadena Ballroom
6:30pm-7:30pm Welcome Reception in the Exhibit Hall
Pasadena Ballroom
7:30pm-11:00pm Past President’s Dinner
Off Site

FRIDAY, SEPTEMBER 23, 2005
7:00am-6:00pm Registration
California Foyer
7:30am-1:00pm General Session (Panels/Paper Presentations)
San Francisco Ballroom
11:30am-12:20pm Jack Anderson Lectureship
Lecturer: Patrick Soon Shiong, MD
San Francisco Ballroom
12:20pm-1:00pm ABFPRS Awards
Howard W. Smith Society Induction
San Francisco Ballroom
8:00am-5:00pm OFPSA Program
Beaudry B
10:00am-4:00pm Exhibition
Pasadena Ballroom
1:00pm-2:00pm Lunch in the Exhibit Hall
Pasadena Ballroom
1:00pm-3:00pm Women in Facial Plastic Surgery Lunch and Workshop
San Gabriel A
1:00pm-5:30pm Archives Editorial Board Meeting
San Gabriel C
2:00pm-5:30pm Intense Learning Sessions (1 through 5)
See pages 15-16 for rooms
4:30pm-5:30pm Credential Table Open
California Foyer
5:30pm-7:00pm Business Meeting and Elections
Presidential Guest of Honor Leadership Awards
The Distinguished 1887 Member Award
San Francisco Ballroom
7:00pm-9:00pm ABFPRS Board Meeting
San Gabriel A and B
9:00pm-11:00pm IFFPSS Board Dinner
Off Site

SATURDAY, SEPTEMBER 24, 2005
7:00am-6:00pm Registration
California Foyer
7:30am-1:00pm General Session (Panels/Paper Presentations)
San Francisco Ballroom
8:00am-10:30am IFFPSS Board Meeting
San Gabriel A
10:00am-2:00pm Exhibition
Pasadena Ballroom
1:00pm-2:00pm Lunch in the Exhibit Hall
Pasadena Ballroom
2:00pm-6:00pm Intense Learning Sessions (6 through 10)
See pages 18-20 for rooms
7:00pm-11:00pm Fundraiser
Off Site

SUNDAY, SEPTEMBER 25, 2005
7:30am-1:00pm Registration
California Foyer
8:00am-1:00pm General Session (Paper Presentations)
San Francisco Ballroom
9:00am-1:00pm Instruction Courses (35 through 55)
See pages 21-24 for rooms
Essentials in Facial Plastic Surgery
Avalon
TARGET AUDIENCE
The Fall Meeting for the AAFPRS is offered for continuing medical education of medical students, residents, fellows, and practicing physicians (MDs and DOs) in the field of facial plastic and reconstructive surgery. The program is for physicians with all levels of experience and covers aesthetic, reconstructive, and congenital issues relevant to this specialty.

LEARNING OBJECTIVES
The AAFPRS Foundation and CME committee work to formulate a program that is contemporary, unbiased and relevant. Participants should be able to:
- Understand surgical procedures, both traditional and new, including techniques, and complications management.
- Adopt strategies on evaluating new technology and devices.
- Develop an appreciation of the evolving face and standards of beauty.
- Choose focused learning sessions concentrating on topics of most value to individuals.
- Understand controversial beliefs and integrate this into personal decision making.

ACCREDITATION AND CREDIT DESIGNATION
The Educational and Research Foundation for the American Academy of Facial Plastic and Reconstructive Surgery is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

The AAFPRS Foundation designates this continuing medical education activity for 27.25 credits in Category 1 of the Physician’s Recognition Award of the American Medical Association.

CME CERTIFICATES
All registered physicians and facial plastic surgery assistants will receive a CME certificate/certificate of attendance post-meeting. An evaluation form needs to be completed and mailed to the AAFPRS Foundation office (or dropped off at the Registration Desk) before a certificate is issued.

DISCLAIMER
Registrants for this course understand that medical and scientific knowledge is constantly evolving and that the views and techniques of the instructors are their own and may reflect innovations and opinions not universally shared. The views and techniques of the instructors are not necessarily those of the Academy or its Foundation but are presented in this forum to advance scientific and medical education. Registrants waive any claim against the Academy or its Foundation arising out of information presented in this course. Registrants also understand that operating rooms and health-care facilities present inherent dangers. Registrants waive any claim against the Academy or Foundation for injury or other damage resulting in any way from course participation.

This educational program is not designed for certification purposes. Neither the AAFPRS nor its Foundation provides certification of proficiency for those attending.

REGISTRATION DESK
California Foyer
The Registration hours are as follows:
- Wednesday, September 21, 2005 Noon-5:00pm
- Thursday, September 22, 2005 6:30am-6:00pm
- Friday, September 23, 2005 7:00am-6:00pm
- Saturday, September 24, 2005 7:00am-6:00pm
- Sunday, September 25, 2005 7:30am-1:00pm

MOVIE THEATER AND VIDEO LEARNING CENTER
Pasadena Ballroom
Unique MOVIE THEATER style-setting only at this meeting, sponsored by Cutera. In conjunction with the Academy’s Video Learning Center, a series of videos will be shown, theater-style. Both theater and Learning Center will be in the Exhibit Hall and will follow exhibit hours.

Visit the AAFPRS Foundation’s John Dickinson Memorial Library, a collection of over 300 classic and new videos on various facial plastic surgery teaching and demonstrations. New videos on rhinoplasty and aging face procedures are now available on CD.

EXHIBITS
Pasadena Ballroom
All breaks and lunches will be served in the Exhibit Hall with the exception of Thursday’s seated lunch. The exhibits are an integral part of your educational process and add value to your overall experience. Help us continue this valued relationship by supporting the exhibits. The hours are as follows:
- Thursday, Sept. 22 10:00am-4:00pm 6:00pm-8:00pm
- Friday, Sept. 23 10:00am-4:00pm
- Saturday, Sept. 24 10:00am-2:00pm

SPEAKER READY ROOM
San Fernando Room
A Speaker Ready Room is open for faculty and speakers to use.

MEETING HEADQUARTERS
Westin Bonaventure Hotel and Suites
404 South Figueroa Street
Los Angeles, CA 90071
Phone (213) 624-1000; Fax (213) 612-4800
All AAFPRS meetings and exhibitions will be held at the Westin Bonaventure.
INVITED SPEAKERS

JOHN CONLEY LECTURESHIP

Nancy Etcoff, PhD is a psychologist and faculty member of the Harvard Medical School and of Harvard University’s Mind/Brain/Behavior Initiative. She directs the Program in Aesthetics and Well Being at the Massachusetts General Hospital Department of Psychiatry. Dr. Etcoff has conducted research on the perception of beauty, emotion, and the brain for over fifteen years. She is the author of *Survival of the Prettiest: The Science of Beauty*, which is the subject of a one-hour Discovery Channel program. Dr. Etcoff’s work has been cited in *The New York Times*, *The New Yorker*, the *Wall Street Journal*, *Vogue*, *Glamour*, *Fortune*, *Forbes*, *U.S. News and World Report, Wired*, and many other magazines and newspapers.

JACK ANDERSON LECTURESHIP

Patrick Soon Shiong, MD, MSc, FRCS(C), FACS is a noted research scientist as well as physician and surgeon who has devoted his career to developing next generation technology to enhance the medical care of patients with life-threatening diseases, including cancer, diabetes and heart disease. Dr. Soon-Shiong continues his pursuit to establish adult stem cells as a platform for the treatment of diabetes, cancer and coronary artery disease. He is the founder, Chairman, and CEO of a privately-held pharmaceutical company, American BioScience (ABI), and is founder and Executive Chairman of ABI’s publicly traded subsidiary, American Pharmaceutical Partners, Inc., a pharmaceutical company focusing on providing injectable-based products for acutely ill patients in the hospital setting.

PRESIDENTIAL GUEST OF HONOR

William H. Friedman, MD of St. Louis, MO, is this year’s Presidential Guest of Honor. Dr. Friedman graduated Washington University School of Medicine in 1964, completed his residency and fellowship at the Mt. Sinai School of Medicine in 1970, where he was chief of their City Hospital division until 1977, after which he became professor and chair of otolaryngology at the St. Louis University School of Medicine. He became an AAFPRS fellowship director in 1984. In 1987, Dr. Friedman founded the Park Central Institute in St. Louis and became Chief of the Department of Otolaryngology at Roosevelt-St Luke’s hospital in New York City. Dr. Friedman was chair of the Credentials Committee and the Forum for Surgical Excellence, has won numerous awards, and has over 200 publications. Bill and Hillary Friedman have two sons, Joseph and Alex.

WEDNESDAY, SEPTEMBER 21, 2005

AO ASIF: PRINCIPLES OF CRANIOMAXILLOFACIAL SURGERY

Emerald Bay

Director: Robert M. Kellman, MD, Syracuse, NY
Faculty: James Bertz, DDS, MD, Scottsdale, AZ; Gregory R.D. Evans, MD, Orange, CA; Neal D. Futran, MD, DMD, Seattle, WA; John L. Frodel, Jr., MD, Danville, PA; Alan S. Herford, DDS, MD, Loma Linda, CA; Kevin A. Shumrick, MD, Cincinnati, OH; E. Bradley Strong, MD, Sacramento, CA; and Sherard A. Tatum, MD, Syracuse, NY

The workshop is intended for instructional training in the perioperative treatment of fractures, and facial reconstruction involving the mandible, maxilla and midface, according to AO ASIF principles and techniques.

8:00-8:10am History of AO and AO North America
8:10-8:25am Mandible: Bone Biology and Fracture Healing
8:25-8:45am Anatomy, Dental Anatomy and Trauma, Fundamentals of MMF
8:45-8:55am Surgical Approaches to Mandible Fractures
8:55-9:25am Mandible: Load Sharing, Load Bearing, Mini Plates, Compression Plates and Lag Screws
9:25-9:40am Break
9:40-10:00am Load Bearing Osteosynthesis: Complicated Mandible Fractures – Edentulous, Comminuted and Defects including Locking Reconstruction Plate (LRP)
10:00-10:20am Management of Complications Related to Mandible Fractures (Non-union, Mal-union)
10:20-10:40am Mandibular Reconstruction
10:40-11:30am Practical Exercise
   Mandible Reconstruction Plates Including LRP
11:30-11:45am Endoscopic Management of Sub Condylar Fractures of the Mandible
11:45-12:45pm Lunch Break
12:45-1:00pm Biomechanics and Approaches to Midface Fractures
1:00-1:20pm Orbital Fractures - Evaluation, Exam and Management (Excludes Approaches)
1:20-1:50pm Management of Zygomatic Fractures (Excludes Approaches and Orbit)
1:50-2:10pm Management of Nasoethmoid Fractures: Anatomy, Classification and Techniques (Excludes Approaches and Frontal Sinus)
2:10-2:30pm Management of Frontal Sinus Fractures: Indications for Simple Repair, Obliteration and Cranialization
2:30-3:15pm Practical Exercise
   NOE, ZMC, Orbital Plate
3:15-3:30pm Break
3:30-3:50pm Panfacial Fractures
3:50-4:10pm Endoscopic Techniques in Craniofacal Surgery (Includes Frontal and Orbital)
4:10-5:00pm Discussion
THURSDAY, SEPTEMBER 22, 2005
GENERAL SESSION
San Francisco Ballroom

7:30-7:45am Introduction and Welcome
   Donn R. Chatham, MD and S. Randolph Waldman, MD, co-chairs

7:45-8:45am Panel: What I Am Doing in My Practice Today that I Was Not Doing 5 Years Ago and Vice-Versa!
   Moderator: William E. Silver, MD, Atlanta, GA
   Panelists: E. Gaylon McCollough, MD, Gulf Shores, AL; Harry Mittelman, MD, Los Altos, CA; Vito C. Quatela, MD, Rochester, NY; and Daniel E. Rousso, MD, Birmingham, AL

Brief overviews from experienced surgeons who share techniques, procedures, strategies and business practices that they have abandoned and replaced with new ones, including why they did so.

8:45-10:00am Panel: The Face of Today and Tomorrow
   Moderator: J. Regan Thomas, MD, Chicago, IL
   Panelist: Peter A. Adamson, MD, Toronto, ON; Marie Czenko Kuechel, Chicago, IL; and Wendy Lewis, New York, NY

A discussion of the concepts of facial beauty as it is appreciated today in contrast to past decades. The group of authorities from different fields and backgrounds will present their views on beauty and make predictions of future trends in facial appearance and cultural acceptance and ideals.

10:00-10:30am Break in Exhibit Hall
San Francisco Ballroom

10:30-11:30am Paper Presentations
   The J-Lift/Internal Facelift for Facial Rejuvenation
   J. L. Leach, MD; D. J. Verret, MD;
   J. E. Gilmore, MD, Dallas, TX

   Safety and Efficacy of Mid Facelifts with the Endotine™ Midface Device
   J. Newman, MD, San Mateo, CA

   Trans Blepharoplasty/Endoscopic Forehead-Brow Lifts in Men
   W. K. Miles, MD, Ft. Worth, TX

   Medium Depth Nonablative Laser Resurfacing Utilizing 532nm Nd: YAG Q-Switched Laser
   B. W. Rubach, MD, Aurora, IL

   Lower Eye-Lid Fat Transportation
   B. W. Rubach, MD, Aurora, IL

   The Use of the Threads with Unidirectional Cogs in Face Lifting
   D.A.F. Ellis, MD; K. Zakhary, MD, Toronto, ON

11:22am Comparative Analysis of Midface Effects and Extent of Lift Achieved with SMAS Plication, Imbrication, and Deep Plane Rhytidectomy Techniques
   J.A. Litner, MD; P.A. Adamson, MD, Toronto, ON

11:30am-12:45pm Panel: Surgery of the Ethnic Face in a Dynamic Multi-Racial Society
   Moderator: Devinder S. Mangat, MD, Cincinnati, OH
   Panelists: Nabil Fanous, MD, Montreal, PQ; Pearl Grimes, MD, Los Angeles, CA; Steve Hoeftlin, MD, Santa Monica, CA; Paul S. Nassif, MD, Beverly Hills, CA; Raj Kanodia, MD, Beverly Hills, CA; and John McCurdy, MD, Honolulu, HI

This panel will cover the changing face of America in terms of the more diverse racial/ethnic mix of patients seeking facial plastic surgery and how their expectations are different and need to be addressed. As facial plastic surgeons we have to evolve with our analysis of these patients and cater to their needs. The panel members have a great deal of experience treating racially and ethnically diverse individuals and will share their insight and experience.

12:45-1:50pm John Conley Lectureship and Luncheon
San Diego Ballroom

A Social Science View of Facial Beauty
   Lecturer: Nancy Etcoff, PhD, Boston, MA

1:50-2:00pm Research Grants and Awards Presentation
San Diego Ballroom

2:00-6:00pm Instruction Courses 1-32
(8 courses per hour)
(See pages 9-13 for titles, descriptions and rooms)

6:30-7:30pm Welcome Reception in the Exhibit Hall
Pasadena Ballroom

EMERGING TRENDS: INJECTABLES, FILLERS, AND NON-ABLATIVE LASER DEMONSTRATION
Avalon
Thursday, September 22, 2005--2:00pm-6:00pm
Moderator: Ronald Caniglia, MD

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<td>Radiesse</td>
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<td>Andy Frankel</td>
<td>Restylane</td>
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<td>S. Randy Waldman</td>
<td>Botox/Upper Face</td>
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<td>Harry Mittelman</td>
<td>Botox/Lower Face</td>
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<td>Steve Perkins</td>
<td>Hylaform</td>
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<td>Corey S. Maas</td>
<td>Cosmoderm</td>
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<td>Michael Echavez</td>
<td>Sculptra</td>
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<td>Doug Hamilton</td>
<td>Artetfill(talk/video)</td>
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<td>Michael Churukian</td>
<td>Autologous Fat(video)</td>
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Moderator: Todd Hobgood, MD

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<td>Harry Mittelman</td>
<td>Titan/Cutera</td>
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<td>Gregory S. Keller</td>
<td>Aurora/Syneron</td>
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This is NOT a CME activity.
THURSDAY INSTRUCTION COURSES
There are 7-10 courses running per hour.

2:00-2:50pm
IC 1 Thread Lifting
San Gabriel B
David A.F. Ellis, MD, Toronto, ON
Dr Ellis will review his one-year experience with the use of cable threads, 2-0 Prolene suture, both as a single procedure and in association with facelift. As a single procedure, elevation of the cheek mound, jowling, and platysma cording can be significantly improved both in younger patients and in older patients who do NOT want a surgical facelift. Dr Ellis will review his philosophy, technique with video clips, complications, and post operative course of over 100 threads that he has put in.
Learning Objectives: Participants should be able to evaluate the use of cable threads and demonstrate techniques in thread lifting.

IC 2 Minimal Incision Face Lifting: The Minilift
San Gabriel C
Daniel E. Roussou, MD, Birmingham, AL
This instruction course will review the pertinent anatomy relative to the rhytidectomy procedure, and explain the rationale for the instructor’s minimal incision technique. A detailed description of the procedure including intraoperative videos will be utilized to explain the procedure. The instructor will also show examples of patients and explain the appropriate indications for this procedure. The technique employs an incision that stops in the post auricular sulcus, thereby avoiding any visible post auricular scars. The technique is excellent for patients with mild to moderate jowling and submental laxity.
Learning Objectives: Participants should be able to: 1) evaluate the pertinent anatomy of the lower face and neck lifting procedures; 2) discuss rationale for, and indicate placement of the various incisions utilized in the minilift procedure; 3) recognize the various planes of dissection associated with the minilift procedure; and 4) indicate the advantages and limitations of minimal incision lifting techniques.

IC 3 Incorporating Videos Into your PowerPoint Presentation and other PowerPoint Pearls
Santa Anita A
Philip J. Miller, MD, New York, NY
Videos in PowerPoint presentations have become an integral part of education. The purpose of the course will be to convey basic and intermediate video capture, download, edit and incorporation techniques. A working knowledge of basic Windows XP tasks is expected. Feel free to bring your laptop and a DIGITAL video recorder with a cord to attach the two.
Learning Objectives: Participants should be able to capture, download and edit video and produce PowerPoint presentations with embedded video.

IC 4 Advantages of the Multi-Vector SMAS Lift
Santa Anita C
Harry Mittelman, MD, Los Altos CA
The multivector SMAS facelift approach provides the greatest versatility to customize the facelift to the particular needs of most patients. The purpose is to provide a technique that is easy to establish in a surgical practice, combining safety and a natural look. The three-layered facelift approach is exceptionally suitable for addressing the SMAS vectors for repositioning the cheek fat pad, a different directional vector for improving the submental platysma laxity, and yet another vector of pull to improve the commissure-mandibular fold and groove. The skin laxity can then be customized for optimal results in yet a different vector.
Learning Objectives: Participants should be able to: discuss technical and philosophical concepts that are easy to grasp and implement in cervical facial rhytidectomy surgery and demonstrate the variability that can be created in tautness and SMAS vector pull in a safe, reliable way.

IC 5 Management of Fat in the Lower Blepharoplasty or Lower Eyelid Transconjunctival Blepharoplasty with Fat Repositioning: Does It Make Sense?
San Gabriel A
Paul S. Nassif, MD, Beverly Hills, CA
Transconjunctival fat preservation during lower lid blepharoplasty has been accepted as a useful technique in the appropriate patient undergoing lower lid surgical rejuvenation. The procedure has a steep learning curve, is lengthier and more complex than standard blepharoplasty, has more potential inherent complications, and requires a longer postoperative rehabilitation. This course will discuss the surgical technique, results, potential complications and surgical pearls.
Learning Objectives: Participants should be able to: 1) select proper patients for this technique; 2) recognize potential surgical hazards; and 3) recognize and understand the surgical technique of this procedure.

IC 6 Refinements in Upper and Lower Blepharoplasty
Santa Anita B
Stephen W. Perkins, MD, Indianapolis, IN
An in-depth discourse on the differences and variabilities in each patient who presents for eyelid rejuvenation. The participant surgeon will learn how to identify and diagnose each nuance of the individual patient’s condition and anatomy. Then a detailed surgical plan and techniques will be described to perform cosmetic upper and lower blepharoplasty while managing the patient’s variably presenting conditions safely.
Learning Objectives: Participants should be able to: 1) learn to recognize and diagnose each individual patient’s presenting eyelid condition; 2) learn which blepharoplasty technique is best chosen for each different presenting patient’s condition; and 3) learn a variety of refinement techniques which need to be used in blepharoplasty to manage these differences.

IC 7 The Art of Photodynamic Therapy: Utilizing Levulonic Acid and Light-based Therapy in the Treatment of Acne and Photorejuvenation
Santa Barbara C
W. Gregory Chernoff, MD, Indianapolis, IN
The list of non-ablative therapeutic options available to patients is ever-growing. The emergence of Levulonic Acid has opened new doors for problematic acne patients as well as patients seeking improvement in skin tone. The science behind this exciting advancement, patient selection, treatment parameters and on-going care will be reviewed in this session. Live demonstrations of Intense Pulsed Light treatments for acne and skin tone will be performed.
Learning Objectives: The participant should be able to: 1) discuss the science behind Levulonic Acid; 2) select appropriate patients for this treatment; and 3) discuss information regarding on-going care.
IC 8 Surgical and Non-surgical Rejuvenation of the Aging Face
Santa Barbara A
Steven J. Pearlman, MD, New York, NY
This course is designed to provide an overview of the surgical and nonsurgical options in facial rejuvenation. Given the myriad of choices available, the instructor will provide a decision tree demonstrating the facets of facial aging with the suggested treatments. The face ages in five ways. Knowledge of each will help determine the optimal treatment options. Before and after photos will be used to demonstrate each procedure.
Learning Objectives: The attendees should be able to distinguish the 5 causes for facial aging: 1) inherent changes within the skin; 2) results of loss of tissue elasticity; 3) effects of soft tissue loss; 4) dynamic lines from hyperactive facial muscular activity; and 5) the effects of gravity. They should then be able to assign the appropriate treatment for each of the above conditions of facial aging.

IC 9 Aesthetic Facial Reconstruction
Santa Barbara B
John L. Frodel, Jr., MD, Danville, PA
While the goal of cosmetic surgery correction and improving congenital deformities such as with Rhinoplasty or mentoplasty, many of the same principles can and should be applied to reconstructive surgery. Camouflage and endoscopic approaches, deep plane and subperiosteal/supraperiosteal dissection planes, soft tissue suspension techniques, and other common cosmetic surgery techniques can benefit both the aesthetic and functional results in reconstructive surgery. In this course, the cross-over between cosmetic and reconstructive principles and techniques will be reviewed along with the presentation of demonstrative case examples.
Learning Objectives: Participants should be able to: 1) recognize the importance of incision camouflage in reconstructive approaches; 2) recognize the importance of soft tissue suspension techniques in reconstructive surgery; 3) explore the possibilities for the use of endoscopic approaches in reconstructive surgery; and 4) recognize the importance of preventing obvious equellae of reconstructive surgery.

3:00-3:50pm
IC 10 Management of the Crooked Nose
Santa Anita A
Peter A. Adamson, MD, Toronto, ON
The crooked nose is one of the most challenging deformities to correct in rhinoplasty. This is partially because of its numerous etiologies – the crooked nasal septum, the deformed nasal tip, curvature of the nasal bone, and asymmetries of the upper lateral cartilages. This course outlines the etiologies of the crooked nose and in a specific detailed manner describes the approach in a graduated fashion to correct these deformities. The presentation is illustrated with patient results and anatomic artwork of the dynamic maneuvers performed to achieve the desired results.
Learning Objectives: Participants should be able to discuss etiologies of the crooked nose and demonstrate techniques to correct deformities.

IC 11 Asian Blepharoplasty and Rhinoplasty
San Gabriel C
Jeffrey M. Ahn, MD, New York, NY
Double eyelid blepharoplasty and augmentation rhinoplasty are the most commonly performed facial plastic procedures in Asian patients. In this course, three basic techniques of double eyelid blepharoplasty (simple suture-only technique, full-incision technique, and modified/combined technique) will be illustrated.
In addition, various types of augmentation rhinoplasty techniques using the alloplastic implants and/or autogenous cartilage grafts will be discussed.
Learning Objectives: Participants should be able to: 1) recognize the unique anatomical features of the Asian face as they are relevant to cosmetic surgery; and 2) apply the basic techniques of Asian blepharoplasty (double eyelid surgery) and Asian augmentation rhinoplasty.

IC 12 Fat Contouring of the Face and Neck
Santa Barbara A
Michael M. Churukian, MD, Beverly Hills, CA
Results and lessons learned from 20 years of experience and several thousand patients will be condensed and reviewed. Our patient information sheets and other material will be provided in a syllabus. Photos and video will demonstrate key points. It will be interactive with shared experience.
Learning Objectives: Participants should be able to: 1) use a safe and precise method of removing fat from the face and neck, both as an isolated procedure and as an adjunct to surgery; 2) apply a consistent method of contouring the face with autologous fat; and 3) apply a safe technique of harvesting the fat for injection from various locations.

IC 13 The Mobile Tripod - A Universal Approach for Tip Modification
Santa Barbara B
Alvin I. Glasgold, MD and Robert J. Glasgold, MD, Highland Park, NJ
The ability to make predictable changes in nasal tip structure has always been a challenge for the Rhinoplasty surgeon, even those with a great deal of experience. Creating an esthetically pleasing tip structure is the key to successful Rhinoplasty. Tip Contouring is important even in standard Rhinoplasty procedures. It is crucial in the more challenging situations such as Revision Rhinoplasty and various ethnic groups, such as African American and Hispanics. Our technique has evolved over the past 35 years. It has been refined to be reproducible by our fellows so that even early in their learning curve, they can accomplish consistently good results. The technique involves separation of the crural arch into its individual components so they can be accurately repositioned, shortened or lengthened. It also simplifies the use of Tip Grafts. For the experienced Rhinoplasty surgeon it adds a significant tool to his ability to deal with all types of Rhinoplasty including the various ethnic types and difficult revisions. Among the areas covered will be Tip Grafts, Correction and Prevention of Alar Columella Disharmony and the Hanging Columella, Reduction of the over projecting tip, Controlled tip rotation, Narrowing, and Projection of the under projected tip.
Learning Objectives: Participants should be able to discuss tip contouring in both standard and more challenging cases and demonstrate tip modification technique with consistent results.
IC 14 New Techniques in Laser Resurfacing
Santa Anita B
Edgar F. Finchcer, MD, PhD, Los Angeles, CA
This presentation will focus on two new modalities for facial
rejuvenation, fractional photothermolysis and plasticmakinetic
resurfacing.
Learning Objectives: Participants should be able to: 1) discuss the
technology behind these new resurfacing modalities; 2) address tissue effects and histologic data; and 3) indicate various clinical applications of these techniques including facial rejuvenation and the treatment of acne scars.

IC 15 The Use of Seminars to Promote Your Cosmetic Practice
San Gabriel B
Marcelo Hochman, MD, Charleston, SC
The pros and cons of using patient seminars to promote a cosmetic practice will be covered in detail. Various aspects of the seminar will be discussed including formats, locations, advertising, use of 3rd parties, follow-up and cost-effectiveness.
Learning Objectives: Participants should be able to: 1) Evaluate the various types of seminar formats that are possible; 2) indicate if a seminar is appropriate for your practice; and 3) discuss the details of putting on and following-up a successful seminar.

IC 16 Light-Based Skin Care Therapy
Santa Barbara C
Corey S. Maas, MD, San Francisco, CA
This course focuses on incorporating light based therapies in plastic surgery practices. The course will include evaluations of the current systems employed for hair removal, intense pulsed light and vein treatments. The course will specifically discuss the economic considerations and benefits and potential risks of incorporating light based therapies into surgical practices.
Live patient demonstrations are planned for the second half of the course seminar with video broadcast for optimal viewing of skin reaction, ideal responses and patient selection discourse.
Treatment responses will be demonstrated for a number of currently available systems to provide participants food for thought in considering the incorporation of this technology.
Learning Objectives: Participants should be able to: 1) compare systems for hair removal, intense pulsed light and vein treatments; 2) determine the benefits and risks of incorporating light based therapies into a practice; and 3) properly assess patients considering light based therapies.

IC 17 Mid-Face Lifting Using the New Endotine Device
Santa Anita C
Devinder S. Mangat, MD, Cincinnati, OH
This course will present a simplified approach to mid face lifting using the Endotyne midface device which has made the procedure relatively non-invasive with lowered morbidity and consistent results.
Learning Objectives: Participants should be able to discuss various approaches to mid-face lifting and evaluate the Endotyne midface device for use in mid-face lifting.

IC 18 Avoiding Trouble in Face Lifting
San Gabriel A
Norman J. Pastorek, MD, New York, NY
Modification of the deep plane face-lift has been used over the past nine years to avoid trouble and generate consistently good aesthetic results, rapid recovery and return to normal life. The elements to be discussed include: post-tragal incision, blunt dissection temporal release to the lateral orbicularis muscle, protection of the temporal branch within the superficial temporalis fascia, release and elevation of the malar fat pad, complete dissection of the cervical skin from the platysma, submental platysma plication and Tisseal fibrin glue sealant.
Learning Objectives: Participants should be able to: 1) discuss modifications in the deep plane face-lift to generate consistent results; and 2) demonstrate techniques to minimize complications in face lifting.

4:00-4:50 pm
IC 19 The Short Scar Facelift–A Treatment Algorithm
Santa Barbara A
W. Gregory Chernoff, MD, Indianapolis, IN
With an increasing number of reality shows highlighting cosmetic procedures, there has been increased interest in minimally-invasive facial rejuvenation options. The “Short Scar Facelift” is among those procedures gaining popularity. While this is a valid procedure to have in one’s treatment armamentarium, patient selection and patient expectations must be appropriate. The anatomy, procedure, and alternatives will be covered in depth in this session, as well as patient education methods to ensure patient satisfaction.
Complications and the treatment thereof will also be covered.
Learning Objectives: The participant should be able to: 1) examine the anatomy involved in the “short scar” facelift; 2) demonstrate “short scar” facelift procedure; 3) discuss alternatives to the procedure; and 4) discuss possible complications and treatment options.

IC 20 Update on Upper and Lower Blepharoplasty
San Gabriel C
Steven Dresner, MD, Los Angeles, CA
This course focuses on insuring a non-surgical post operative appearance with blepharoplasty. Upper eyelid surgery with preservation of the orbicularis oculi muscles with various approaches to fat removal will be taught. Lower Blepharoplasty techniques of transconjunctival blepharoplasty, “pinch” blepharoplasty, and lateral canthopexy will be discussed. Avoiding and treating complications of blepharoplasty will be emphasized.
Learning Objectives: The participant should be able to: 1) Examine the various approaches to fat removal; and 2) Discuss lower blepharoplasty techniques including transconjunctival blepharoplasty, “pinch” blepharoplasty, and lateral canthopexy.
IC 21 Hair Replacement Surgery 2005
San Gabriel A
Sheldon S. Kabaker, MD, Oakland, CA
In addition to modern follicular unit hair transplantation techniques there will be descriptions of reconstructive scalp surgeries involving scalp (tissue) expansion and of the trichophytic incision which lessens visible hairline scarring. This applies to face lifts, forehead lifts and hairline lowering (forehead reduction). Hair restoration combined with male facial rejuvenation will be presented.
Learning Objectives: Participants should be able to: 1) recognize and assess male pattern baldness and other forms of hair loss; 2) evaluate past and present approaches to patients with hair loss; and 3) apply surgical hair restoration techniques to patients undergoing facial rejuvenation surgery.

IC 22 Enhancement of Facial Rejuvenation with Alloplastic Implants and Facial Contour Fillers
San Gabriel B
Harry Mittelman, MD, Los Altos, CA
The use of alloplastic mandibular facial implants and facial contouring with fillers have become an essential part of facial rejuvenation surgery. Extended Chin Implants and pre-jowl implants provide an enormous benefit for many aging patients in return for very little surgical effort and relatively little patient cost. No adjunct facelift procedure has been as gratifying to my patients. In addition, the recent improved use of autologous fat for facial contouring in the aging patient has been more effective because of better techniques. Furthermore, some commercial subcutaneous fillers such as Radiesse and Sculptra can achieve similar results for a limited period of time.
Learning Objectives: Participants should be able to: 1) demonstrate the surgical techniques for placing facial mandibular implants; and 2) discuss the concepts for facial contouring with commercial fillers or autologous fat transfer.

IC 23 Use of Fibrin Sealants in an Aesthetic Practice
Santa Anita A
James R. Shire, MD, Chattanooga, TN
This presentation will provide a clinical and practical presentation of facial plastic techniques utilizing fibrin sealants. Patient satisfaction, decreased bruising and swelling with rapid recovery and decreased operative time will be demonstrated. Fibrin sealants act as a hemostatic, adhesive and bio-stimulating agent that increases wound healing. This presentation will discuss facelifts, brow lifts, Rhinoplasty and many other uses of fibrin sealants.
Learning Objectives: Participants should be able to: 1) incorporate techniques of fibrin sealants into a facial plastic surgery practice; 2) discuss advantages, pitfalls, and practical pearls; and 3) discuss the physiology of wound healing as it relates to the use of fibrin sealants.

IC 24 A Systematic Approach to Facelifts Emphasizing the Anatomical, Surgical and Indication Differences Between a Deep Plane Lift, Minituck and S Lift
Santa Barbara C
M. Sean Freeman, MD, Charlotte, NC
This course will provide a review of the anatomy involved in a deep plane lift and when the presenter feels this approach is warranted. This will include a review of a SMAS division mid-face lift. In addition the course will review what is known as a minituck including pertinent anatomy and indications. Finally the S lift will be described and the presenter will describe how this procedure fits into his practice. Attendees will have the deep plane lift explained in a way that is demystifying and be able to apply the techniques presented into their own practices.
Learning Objectives: Participants should be able to discuss anatomy involved in a deep plane lift and a minituck and apply deep plane lift techniques into a practice.

IC 25 Adding a Medical Spa to Your Facial Plastic Surgery Practice (This is a 2-hour course; the 2nd hour is at 5:00pm)
Santa Anita C
Roger A. Allcroft, MD, Northampton, MA; Stephen W. Perkins, MD, Indianapolis, IN; and Vito C. Quatela, MD, Rochester, NY
As new technologies, such as nonablative photorejuvenation and laser hair removal have come to the scene, there has been an increased need for nonphysician skin care specialists to work with physicians. This in part has catalyzed the addition of medical spas to offices of facial plastic surgeons. Although the term “medical spa” includes resort spas and holistic health centers, most medical spas started by facial plastic surgeons are offshoots of medically based skin care services that have been part of our practices for years. In addition to services such as microdermabrasion, light chemical peels and the sale of home skin care products, additional services such as facials, massage, and nonablative photorejuvenation are incorporated into a medical spa’s menu of services. This one hour instructional course will review our own experiences with developing our medical spas including selecting a menu of services, architectural design, (such as layout, lighting and sound system), legal issues, personnel and business issues, new equipment needs, graphic design, and marketing plans.
Learning Objectives: Participants should be able to: 1) evaluate medical spas as it relates to a practice; 2) select design of spa and services to offer; 3) discuss legal issues involved; and 4) implement marketing plan.

IC 26 Sculpting Faces in 3 Dimensions: The Art of Combining Upper Mid-face Suspension Technology with Alloplastic Implants (This is a 2-hour course; the 2nd hour is at 5:00pm)
Santa Anita B
Edward Terrino, MD, Thousand Oaks, CA
This course will teach the aesthetic physician how to define, create and augment facial contours using Alloplastic Facial Implants, as well as mid-face suspension techniques.
Learning Objectives: Participants should be able to: 1) utilize three dimensional principles of facial aesthetics; and 2) discuss the techniques of consultation and implementation of mid-face augmentation and suspension as well as premandible jawline contouring that will produce consistent, reliable and predictable results.

5:00 – 5:50pm
IC 27 Overview of Approach to Lower Lid Rejuvenation including SOOF Lift Blepharoplasty: Techniques to Improve Results and Decrease Complications
Santa Barbara A
M. Sean Freeman, MD, Charlotte, NC
This course will emphasize using a transconjunctival SOOF lift approach for lower lid rejuvenation. The presenter will review
this procedure with an emphasis placed on fat preservation. Other approaches to lower lid rejuvenation will also be discussed with an emphasis placed on how to improve results and minimize the risk of scleral show or ectropion. Attendees should come away from this course with an excellent understanding of the SOOF lift technique as originally published by the presenter and modified over time along with an understanding of alternative approaches as needed.

Learning Objectives: Participants should be able to execute the SOOF lift approach for lower lid rejuvenation and review and choose appropriate alternative approaches to SOOF lift technique, when indicated.

IC 28 Intense Review of Hair Transplantation for the Plastic Surgeon
San Gabriel A
Jeffrey S. Epstein, MD, Miami, FL
This course will provide a full review of the hair transplantation process, including the technical aspects of microscopic follicular unit grafting, caveats to establishing a practice including setting up a team of assistants, aesthetic hairline design, and the different applications of the procedure. Other surgical hair restoration techniques will also be reviewed. In accordance with the target attendees, focus will be on incorporating surgical hair restoration within a plastic or facial plastic surgery practice.

Learning Objectives: Participants should be able to: 1) discuss microscopic follicular unit grafting, as well as other surgical hair restoration techniques; 2) evaluate the different applications of hair restoration, including the treatment of pattern baldness for men and women, and repairing alopecic scarring from prior surgery or trauma; and 3) set up a hair restoration practice.

IC 29 Complementary Fat Grafting for the Facial Plastic Surgeon
San Gabriel B
Mark J. Glasgold, MD, Highland Park, NJ
Complementary fat grafting incorporates autologous fat transfer into treatment plans, which include facelifts, blepharoplasty, and browlifts to create more natural facial rejuvenation with minimal added morbidity. The course will teach techniques in a manner oriented towards facial plastic surgeons. Basic skills will include planning the procedure as part of an overall facial rejuvenation procedure, harvesting the fat, and injecting the fat. A step-by-step algorithm for simple injections, which will produce improved facial rejuvenation without adding significant downtime, will be taught.

Learning Objectives: Participants should be able to develop confidence in harvesting fat and apply basic fat injection technique.

IC 30 Suspension Lifting of the Face
Santa Anita A
Gregory S. Keller, MD, Santa Barbara, CA
Learning Objectives: Participants should be able to: 1) Evaluate current techniques for suture loop suspension of the neck, face, and midface and examine alternate and adjunctive techniques; and 2) identify proper candidates for suture loop suspension techniques.

IC 31 The Timeless Facelift
Santa Barbara C
E. Gaylon McCollough, MD, Gulf Shores, AL
As time passes, the face changes…and so it seems do the techniques designed to reverse the inevitable signs of aging. The author has performed facelifting for thirty years. During that time he has changed very little of the technique he used when he began his career, resisting the temptation to incorporate every “new” modification which appears in the literature. This presentation is intended to demonstrate the basic principles and surgical maneuvers of surgery, which lifts and tightens sagging tissues of the forehead, face, and neck. Emphasis will be placed on safety and in obtaining natural, non-operated results, which stand the ultimate test of patient satisfaction.

Learning Objectives: Participants should be able to apply basic principles and surgical maneuvers for a facelift and discuss safety issues involved in surgery.

IC 32 Skin Care in My Practice
San Gabriel C
Mary Lynn Moran, MD, Palo Alto, CA
The demand for nonsurgical procedures is driving the growth of the cosmetic medical industry. Future growth in the arena is limited only by the imagination. New technologies continue to pop up nearly daily, thus greatly expanding our ability as practitioners to reach new patients. Skincare and the cosmeceutical industry are the linchpins of this growth segment. Surgeons who develop a skincare practice within their offices are better able to serve their patients on many levels. In addition to the obvious advantage of allowing “one-stop shopping” at a location that is highly specialized in all aspects of facial rejuvenation, the opportunity to establish an ongoing relationship with the patient allows for greater rapport and trust as well as financial opportunity. We will not only discuss practical application and technique, but also the underlying science, how to go about deciding from an ethical point of view as well as a fiscal point of view upon the addition of new technologies that are less “quantifiable” in their outcomes.

Learning Objectives: Participants should be able to: 1) discuss and evaluate the ethics of incorporating skin care into a facial plastic surgery practice; and 2) evaluate and decide on the efficacy of new technologies in skin care.

IC 33 Adding a Medical Spa to Your Facial Plastic Surgery Practice (Continued from 4:00pm)
Santa Anita C
Rogert A. Allcroft, MD, Northampton, MA; Stephen W. Perkins, MD, Indianapolis, IN; and Vito C. Quatela, MD, Rochester, NY

IC 34 Sculpting Faces in 3 Dimensions: The Art of Combining Upper Mid-face Suspension Technology with Alloplastic Implants (Continued from 4:00pm)
Santa Anita B
Edward Terrino, MD, Thousand Oaks, CA
Panel: Controversies in Facial Plastic Surgery

Thursday, September 22, 2005, 7:15pm-9:00pm
This workshop will provide participants with advanced injection techniques specific to Restylane, new hyaluronic acid filler. The workshop will include video and live demonstrations. Emphasis will be place on: aesthetic evaluation of the patient; appropriate pain management techniques; and specific advanced techniques of Restylane injections.

Topics covered include: functional anatomy as pertinent to facial filling agents; aesthetic analysis of patients who present for treatments and artistic goals; anesthetic techniques for facial fillers to maximize patient comfort/experience; advanced injection techniques; a case analysis and clinical results; and complications of injectable agents--avoidance and treatment.

Learning Objectives: Participants should be able to: 1) gain insight into the aesthetic evaluation process for advanced techniques; 2) discuss appropriate pain management techniques when using filler products; 3) understand advanced injection techniques specific to hyaluronic acid fillers and to certain areas of the face; and avoid complications with hyaluronic acid fillers. The AAFPRS Foundation would like to thank Medicis for their financial support. This is NOT a CME activity.

FRIDAY, SEPTEMBER 23, 2005
GENERAL SESSION
San Francisco Ballroom
7:30-10:00am Panel: Controversies in Facial Plastic Surgery
Moderators: Wayne F. Larrabee, Jr, MD, Seattle, WA and Fred Fedok, MD, Hershey, PA
Distinguished Jurists: J. Regan Thomas, MD; Gregory S. Keller, MD; Richard L. Goode, MD; E. Gaylon McCollough, MD; Devinder S. Mangat, MD, Cincinnati, OH; and Norman J. Pastorek, MD, New York, NY
This panel will address opposing views and topics. Strong and experienced advocates will present the best evidence for their positions and judgement will be rendered by our distinguished jurists. Dr. Larrabee will preside and enforce the rules of evidence while Bailiff Fedok maintains order and ensures a timely debate. At the end of this panel, 4 major controversies in our field should be resolved to the satisfaction of all.

Controversies & Presenters:
• Endoscopic Forehead Lifts (Vito C. Quatela, MD, Rochester, NY) versus the Open Forehead Lift (Richard Fleming, MD, Los Angeles, CA)
• Laser Resurfacing (Paul J. Carniol, MD, Summit, NJ) versus Chemical Peels (Devinder S. Mangat, MD, Cincinnati, OH)
• Transcutaneous Blepharoplasty (Norman J. Pastorek, MD, New York, NY) versus Transconjunctival and Fat Preservation Blepharoplasty (Norman Shorr, MD, Los Angeles, CA)
• Endoscopic Temporal Midface Lift (Edwin F. Williams, MD) versus a Transblepharoplasty Midface Lift (Stephen W. Perkins, MD)

10:00-10:45am Break in the Exhibit Hall
Pasadena Ballroom

10:45-11:30am Facial Rejuvenation Techniques with Emphasis on Endoscopic Approach
Guest Speaker: Peter Fodor, MD, Los Angeles, CA

11:30am-12:20pm Jack Anderson Lectureship
Lecturer: Patrick Soon Shiong, MD

12:20-12:30pm ABFPRS Awards
Howard W. Smith Society Induction

12:30-1:30pm Lunch in the Exhibit Hall
Pasadena Ballroom

1:30-5:30pm Intense Learning Sessions 1-5
(Five 4-hour courses presented concurrently)
(See pages 15-16 for schedule and rooms)

ILS 1 Intense Practical Issues in Practice Management, Part I
Richard D. Gentile, MD, MBA, Youngstown, OH

ILS 2 Emerging Trends: Facelifts-Suture Lifts, Thread Lifts, Minilifts New Facial Rejuvenation Technology
Paul J. Carniol, MD, Summit, NJ

ILS 3 Mid-Face Rejuvenation
Tom D. Wang, MD, Portland, OR

ILS 4 Autologous Fat Grafting
Thomas L. Tzikas, MD, Delray Beach, FL

ILS 5 Rhytidectomy of the Lower Face and Neck
D. E. Rousso, MD, Birmingham, AL

PAST PRESIDENTS’ DINNER
AAFPRS past presidents will have their annual dinner on Thursday, September 22, 2005, off-site.

WELCOME RECEPTION
All AAFPRS meeting registrants are invited to attend the Welcome Reception on Thursday, September 22, 2005 in the Exhibit Hall from 6:30pm to 7:30pm. Spouses and guests who are not registered for the meeting can purchase tickets to attend the reception (visit Registration Desk to purchase tickets).

FELLOWSHIP DIRECTORS’ LUNCHEON
San Gabriel A
AAFPRS Fellowship Directors are encouraged to attend a luncheon scheduled on Friday, Sept. 23, 2005 from 1:00 to 2:00pm. Directors should respond upon receipt of their personal invitation.

BUSINESS MEETING AND CREDENTIALS TABLE
All members eligible for voting must pick up their credentials card and voting materials at the Credentials Table prior to the elections. The Credentials Table will be open on on Friday, September 23, 2005 from 4:30 to 5:30pm. After 5:30pm, no election material will be handed out.

COAPT SYMPOSIUM
Santa Anita A & B
This symposium will be held from 7:00pm to 9:00pm on Fridya, September 23, 2005.
5:30-7:00pm  Business Meeting and Elections  
San Francisco Ballroom  
Leadership Awards  
Presidential Guest of Honor  
The Distinguished 1887 Member Award  

Friday Intense Learning Session 1 (ILS1)  
Santa Anita A, B, C  
This is one of the 5 sessions running per 4-hour block.  
Mini MBA for Physicians and Office Managers, Part I  
Moderator: Richard D. Gentile, MD, MBA, Youngstown, OH  
1:30pm  Business Structures Administrative Management and Leadership  
Richard D. Gentile, MD, MBA, Youngstown, OH  
1:45pm  Human Resource Management  
Susan Sullivan, Albany, NY  
1:55pm  Process and Information Management: People and Operations Process Design  
Edward H. Szachowicz, II, MD, Edina, MN  
2:10pm  Process and Information Management Software and Operations Process Design (MIS)  
Philip J. Miller, MD, New York, NY  
2:25pm  Financial Management  
Harrison C. Putman, III, MD, Peoria, IL  
2:40pm  Patient and Clinical Care Management TBA  
Susan Sullivan, Albany, NY  
3:00pm  Ambulatory Facility Management  
Gerald G. Edds, MD, Owensboro, KY  
3:20pm  Panel: Mastering the Fundamentals of Practice Management  
Moderator: Richard D. Gentile, MD, Youngstown, OH  
Panelists: Harrison C. Putman, III, MD, Peoria, IL; Philip J. Miller, MD, New York, NY; Edward H. Szachowicz, II, MD, Edina, MN; and Susan Sullivan, Albany, NY  
3:40pm  Break  
3:50pm  Risk Management  
4:05pm  Marketing Management (l)  
Karen Zupko, Chicago, IL  
4:25 pm  Introduction to Media Advertising for Practice Marketing  
Julie Stone, Network Affiliates  
4:35pm  Life and Relationship Management  
Peter A. Adamson, MD, Toronto, ON  
4:50pm  Joint Ventures and Strategic Affiliations  
Edwin F. Williams, MD, Latham, NY  
5:00pm  Panel: Things that Matter the Most in Managing and Promoting Aesthetic Practices  
Peter A. Adamson, MD, Toronto, ON; Julie Stone, Network Affiliates; Edwin F. Williams, MD, Albany, NY; and Karen Zupko, Chicago, IL  
5:20pm  Questions and Answers  
This is NOT a CME activity.

Friday Intense Learning Session 2 (ILS2)  
Santa Barbara A, B, C  
This is one of the 5 sessions running per 4-hour block.  
Emerging Trends: Facelifts-Suture Lifts, Thread Lifts, Minilifts New Facial Rejuvenation Technology  
Moderator: Paul J. Carniol, MD, Summit, NJ  

Learning Objectives: Participants should be able to learn about the techniques, efficacy, and complications of minimally invasive facelift techniques and to learn about the latest technology and emerging trends for facial skin rejuvenation.  
1:30pm  Thread Face Lifts: Technique and Analysis of Results  
Marcelo Hochman, MD, Charleston, SC  
1:45pm  Suture Face Lifting with Fixation-Technique and Analysis of Results  
Ronald Moy, MD, Los Angeles, CA  
2:00 pm  Aphthous Thread Face Lifts: Technique and Analysis of Results  
Barry Lycka, MD, Edmonton, Alberta  
2:30pm  Mini Face Lifts-Technique, Patient Selection, Analysis of Results  
Harry Mittelman, MD, Los Altos, CA  
2:45pm  Suspension Facelift  
Sorin Eremia, MD, Los Angeles, CA  
3:00pm  Panel: Patient and Technique Selection for Minimally Invasive Facelift  
Panelists: Barry Lycka, MD, Edmonton, AB; Marcelo Hochman, MD, Charleston, SC; Ronald Moy, MD, Los Angeles, CA; Harry Mittelman, MD, Los Altos, CA; and Sorin Eremia, MD, Los Angeles, CA  
3:15pm  Titan-Infrared Facial Skin Tightening  
Paul J. Carniol, MD, Summit, NJ  
3:30pm  Plasma Resurfacing  
Edgar F. Fincher, MD, Los Angeles, CA  
3:45pm  Bipolar Radiofrequency Skin Tightening  
Steve Goldstein, MD, Philadelphia, PA  
4:00pm  Photodynamic Skin Rejuvenation  
Mitchell Goldman, MD, Los Angeles, CA  
4:15pm  Comparison of LED Facial Rejuvenation to Other Modalities  
Gary Lask, MD, Los Angeles, CA  
4:30pm  Fractionated Laser Resurfacing  
Elizabeth F. Rostan, MD, Charlotte, NC  
4:40pm  Sculptra  
Elizabeth F. Rostan, MD, Charlotte, NC  
4:50pm  Erbium Laser Resurfacing  
James Newman, MD, San Mateo, CA  
5:00pm  Radiesse Technique and Critical Analysis of Results  
Thomas L. Tzikas, MD, Delray Beach, FL  
5:10pm  A New Injectable Botox Alternative  
Kenneth Buchwach, MD, Overland Park, KS  
5:20pm  Use of Advanced Adhesives for Browlift Fixation  
Corey S. Maas, MD, San Francisco, CA
Friday Intense Learning Session 3 (ILS3)
San Francisco Ballroom
This is one of the 5 sessions running per 4-hour block.
How I Approach the Midface: Rationale and Results
Moderator: Tom D. Wang, MD, Portland, OR

This session will cover didactic and interactive learning covering controversies in management of the aging midface.
Learning Objectives: At the conclusion of this sessions participants should be aware of different approaches to management of the midface and be able to discuss management of complications of midface surgery.
1:30pm Midface modifications: Percutaneous Suture and Transblepharoplasty Midfacelift
   Keith LaFerriere, MD, Springfield, MO
2:00pm Submalar Implant Augmentation
   William J. Binder, MD, Los Angeles, CA
2:30pm Triplane Facelift
   Shan R. Baker, MD, Ann Arbor, MI
3:00pm Subperiosteal Midfacelift
   Vito C. Quatela, MD, Rochester, NY
3:30pm Application of Endotine Device in Midfacelift
   James Newman, MD, San Mateo, CA
4:00pm New Infraorbital Implant for the Midface
   Steven Burres, MD, Beverly Hills, CA
4:30pm Deep Plane Facelift
   Jonathan M. Sykes, MD, Sacramento, CA

Friday Intense Learning Session 4 (ILS4)
Avalon
This is one of the 5 sessions running per 4-hour block.
Autologous Fat Grafting for Facial Rejuvenation
Moderator: Thomas L. Tzikas, MD, Delray Beach, FL

Learning Objectives: At the conclusion of this course, the participant should be able to: 1) understand and discuss the importance of soft tissue volume loss in facial aging; 2) evaluate candidates for fat grafting; 3) recognize optimal areas of fat contouring; and 4) understand and discuss volume replacement techniques.
1:30pm Introduction
   Thomas L. Tzikas, MD, Delray Beach, FL
1:40pm Volume and the Aging Face
   Val Lambros, MD
2:10pm Advances in the Science of Adipose Biology
   Ali Sajadian, MD, Pittsburgh, PA
2:40pm Harvesting and Preparation of Fat for the Facial Plastic Surgeon
   Mark Glasgold, MD, Highland Park, NJ
3:10pm Panel: Case Presentations, Surgical Planning, Regions Augmented, Volumes Used, Infiltration Techniques, Instrumentation
4:00pm Periorbital Rejuvenation Using Fat
   Mark Berman, MD, Santa Monica, CA
4:30pm Combination Procedures with Fat Grafting
   Thomas L. Tzikas, MD, Delray Beach, FL
5:00pm Panel: Complications and Treatments, Long Term Results, Pearls and Pitfalls of Fat Grafting

Friday Intense Learning Session 5 (ILS5)
Emerald Bay
This is one of the 5 sessions running per 4-hour block.
Rhytidectomy of the Lower Face and Neck
Moderator: Daniel E. Rousso, MD, Birmingham, AL

Learning Objectives: Participants should be able to: 1) evaluate the pertinent anatomy of the lower face and neck lifting procedures; 2) discuss rationale for, and indicate placement of the various incisions utilized in rhytidectomy of the lower face and neck; 3) recognize the various planes of dissection associated with rhytidectomy of the lower face and neck and the range of complications associated with the different approaches; and 4) indicate the advantages and limitations of minimal incision lifting techniques.
1:30pm Sub Periostal Rhytidectomy with Platysmaplasty
   Vito C. Quatela, MD, Rochester, NY
1:50pm Deep Plane Rhytidectomy-Why it Works For Me
   Norman J. Pastorek, MD, New York, NY
2:10pm SMAS Plication Rhytidectomy-My Personal Preference
   H. George Brennan, MD, Newport Beach, CA
2:50pm Experience with the Short Flap Facelift-The Lifestyle Lift
   Edwin F. Williams, MD, Latham, NY
3:30pm BiPlanar Rhytidectomy-A Secure Approach
   Daniel E. Rousso, MD, Birmingham, AL
3:50pm Achieving An Excellent Neckline in Rhytidectomy
   Stephen W. Perkins, MD, Indianapolis, IN
4:30pm Deep Plane Rhytidectomy-Tisseal Enhanced
   Frank M. Kamer, MD, Beverly Hills, CA
4:50pm Advantages of the Multivector SMAS Lift
   Harry Mittleman, MD, Los Altos, CA

WOMEN IN FPS LUNCHEON
San Gabriel B
The Women in Facial Plastic Surgery Committee is hosting an informative 2-hour lunch/workshop on Friday, Sept. 23, 2005 from 1:00pm to 3:00pm. Each attendee will be assigned to two mentors during each of the several round table discussions throughout the workshop.
1. Deciding on the type of fellowship training
2. Choosing a type of practice (academic vs. private)
3. Joining a practice vs. starting one
4. Facts to know if an academic path is for you
5. Leadership roles
6. Billing/coding issues
7. Marketing your practice
8. How to balance everything with your personal life & family.
Come with your questions or just sit back and take in the pearls that our mentors will share. Our goal is to inspire and provide you with valuable resources for your future in facial plastic surgery.
SATURDAY, SEPTEMBER 24, 2005
GENERAL SESSION
San Francisco Ballroom
7:30-8:30am Paper Presentations
7:30am What is the Medico-legal Implication of a Web-based 3-Dimensional Interactive Virtual Reality Plastic Surgery Package? N. Shamsian, MD; S.J. Southern, MD; S. Wilkinson, MD, Wakefield, United Kingdom
7:38am Correction of the High Female Hairline A.L. Ramirez, MD; S. S. Kabaker, MD, Salinas, CA
7:47am Pre-Vestibular Alarplasty: Techniques and Results R.D. Gentile, Youngstown, OH
7:56am Treatment of Internal Nasal Valve Collapse with Radiesse (CaHA) Spreader Grafting E. A. Mangubat, MD; C. P. Nyte, DO, Seattle, WA
8:06am Technical Modification of Composite Subperiosteal Midface Lift for Functional Rehabilitation of Irreversible Facial Paralysis G. Lin, MD, Philadelphia, PA
8:14am Cosmetic Surgery in “Reality” and Dramatic Television: The Influence on Public Perception G. Aharonov, MD, MS; M. Godin, MD; A. J. Heller, MD; Richmond, VA
8:22am Efficacy of the Erbium: YAG Subablative “Micropeel” R. M. Rehl, MD, Chicago, IL

GUEST SPEAKERS
8:30-9:00am A Critical Look at Periorbital Rejuvenation: Is That the Best We Can Do? Guest Speaker: Robert A. Goldberg, MD, Los Angeles, CA
9:00-10:00am Panel: Ten Most Common Problems in Face Lifting Moderator: Harry Mittelman, MD, Los Altos, CA Panelists: H. George Brennan, MD, Newport Beach, CA; Frank M. Kamer, MD, Los Angeles, CA; Norman J. Pastorek, MD, New York, NY; Edwin A. Cortez, MD, Leawood, KS; and S. Randolph Waldman, MD, Louisville, KY A panel of seasoned surgeons reveal potential and real problems associated with face lifting and how to avoid and manage them.
10:00-10:30am Saddlenose Deformity: Classification Guest Speaker: Rollin K. Daniel, MD, Newport Beach, CA
10:30-11:00am Break in Exhibit Hall
11:00-11:30am Cutting Through the Confusion of All of the Non-Invasive and Invasive Lasers currently on the Market and What We are Currently Using in Our Practice Guest Speaker: Mitchell Goldman, MD, Los Angeles, CA
11:30-Noon Headline News from the World of Facial Plastic Surgery Donn R. Chatham, MD, Lexington, KY
Noon-1:00pm Panel: The Unhappy Patient Moderator: Donn R. Chatham, MD, Lexington, KY There will be a short video presentation—the story of an unhappy patient/surgeon with emphasis on what not to do...(in keeping with our location in Movieland, USA) followed by a panel discussion on keys to avoiding unhappy patient encounters.
1:00-2:00pm Lunch in the Exhibit Hall
2:00-6:00pm Intense Learning Sessions 6-10 (Five 4-hour courses presented concurrently) (See pages 18-20 for titles and times)
ILS 6 Mini MBA for Physicians and Office Managers, Part II Moderator: Richard Gentile, MD, MBA, Youngstown, OH
ILS 7 Public Relations Forum Moderator: Edwin F. Williams, MD, Latham, NY
ILS 8 Blepharoplasty Stephen W. Perkins, MD, Indianapolis, IN
ILS 9 Skin Rejuvenation Moderator: Steven Dayan, MD, Chicago, IL
ILS 10 Rhinoplasty Moderator: Peter A. Adamson, MD, Toronto, Canada
7:00-11:00pm Fall Fundraiser

Fall Fundraiser
7:00pm-11:00pm, Saturday, September 24, 2005
The AAFPRS Fall Fundraiser will be held at Dr. and Mrs. Paul S. Nassif’s home in Beverly Hills. The event will include an evening of poker (with celebrities), an art auction, good food, dancing, and many surprises. PCA Advanced Skin Care Systems has graciously underwritten this event. This year, PCA is celebrating 15 years of serving the medical field with their skin care products and treatment options (see AD on back cover).
Saturday Intense Learning Session 6 (ILS6)
Santa Anita A & B
This is one of the 5 sessions running per 4-hour block.
Intense Practical Issues in Practice Management, II
Moderator: Richard D. Gentile, MD, MBA, Youngstown, OH

2:00pm The Importance of Having a Marketing Plan
Jon Mendelsohn, MD, Cincinnati, OH
2:15pm Developing an Internet Strategy
Christopher A. Jilly
2:35pm The Plastic Surgery Coordinator and the Plastic Surgery Consultation
Harry Mittelman, MD, Los Altos, CA
2:55pm Advanced Multimedia Marketing
Julie Stone, Network Affiliates
3:35pm Break
3:45pm The Surgeons Dilemma of Managing Aesthetic Medical Technology
W. Gregory Chernoff, MD, Indianapolis, IN
3:55pm The Business of Expanding Aesthetic Services
Mitchell Goldman, MD, Los Angeles, CA
4:05pm Pricing Strategy for the Large Market
Thomas Romo, III, MD, New York, NY
4:15pm Pricing Strategies for the Small Market
Keith A. LaFerriere, MD, Springfield, MO
4:25pm Personal Investing, Retirement Planning, and Asset Protection
Richard D. Gentile, MD, MBA, Youngstown, OH
4:35pm Panel: Strategic Planning for Aesthetic Services/Surgery
How to Price and Market Them
Panelists: W. Gregory Chernoff, MD, Indianapolis, IN; Mitchell Goldman, MD, Los Angeles, CA; Keith A. LaFerriere, MD, Springfield, MO; and Thomas Romo, III, MD, New York, NY
4:55pm What to Do in the First 10 years of Practice
Mary Lynn Moran, MD, Woodside, CA
5:05pm Solo and Small Group Practices
Paul S. Nassif, MD, Beverly Hills, CA
5:15pm How to Assess a Successful Cosmetic Surgery Practice
Angela Omara, Management Consultant
5:25pm Academic and Large Group Practices
J. Regan Thomas, MD, Chicago, IL
5:35pm Benchmarks and Milestones 2005. How do you Compare?
Richard D. Gentile, MD, MBA
5:45pm Panel: Identifying “Best Practices” in Aesthetic Practice Management
Panelists: Mary Lynn Moran, MD, Woodside, CA; Angela O’Mara, Newport Beach, CA; Paul S. Nassif, MD, Beverly Hills, CA; and J. Regan Thomas, MD, Chicago, IL.
This is not a CME activity.

CUTERA is a proud sponsor of the Cutera Facial Plastic Surgery Movie Theater. Visit the Exhibit Hall for play times.

Saturday Intense Learning Session 7 (ILS7)
San Francisco
This is one of the 5 sessions running per 4-hour block.
Public Relations Forum
Moderator: Edwin F. Williams, MD, Latham, NY

2:00pm Effectively Marketing Facial Plastic Surgery
Julie Stone, Network Affiliates Inc.
2:15pm 5 Deadly Sins of Marketing
Dana Fox, Inform Solutions, Inc.
2:30pm Layering PR, Advertising for Marketing Success
Karen Lawson, Contact Healthcare Communications
2:45pm How to Interact with Media to Your Advantage & the Value of a Publicist
Angela O’Mara, The Professional Image Corp.
3:00pm The Consultation: From a Patients Point of View
Catherine Maley, Cosmetic Image Marketing
3:15pm Effective Seminars
Kathryn Dunn, K. DUNN Associates
3:30pm Marketing Your Web Site
Steve Smith, Practice Builders
3:45pm Television Infomercial
Randy Alvarez, The Wellness Hour
4:15pm Break
4:30pm Panel Discussion
Moderator: Edwin F. Williams, MD, Latham, NY
Panelists: E. Gaylon McCollough, MD, Gulf Shores, AL; Harry S. Mittelman, MD, Los Altos, CA; and Vito C. Quatela, MD, Rochester, NY
5:30pm Q&A Open Mic
This is not a CME activity.
Saturday Intense Learning Session 8 (ILS8)
San Gabriel A, B & C
This is one of the 5 sessions running per 4-hour block.

Blepharoplasty
Moderator: Stephen W. Perkins, MD, Indianapolis, IN

2:00pm Lower Lid Blepharoplasty: Why The Transcutaneous Skin-Muscle Flap Approach Is The Preferred Procedure
Norman J. Pastorek, MD, New York, NY

2:15pm Lower Lid Blepharoplasty: Transconjunctival Approach To Fat Transposition
Peter A. Hilger, MD, Edina, MN

2:30pm Treatment of Lower Eyelid Laxity, Rounding, Scleral Show, And Ectropion And Management Of The Aging Lower Eyelid Via Mid-Face Lifting
Robert A. Goldberg, MD, Los Angeles, CA

2:45pm Lower Lid Blepharoplasty in Combination with SOOF and Face-Lifting
M. Sean Freeman, Charlotte, NC

3:00pm Finesse in Upper Lid Blepharoplasty
J. Regan Thomas, MD, Chicago, IL

3:15pm Transblepharoplasty Approach to Brow Lifting to Enhance the Overall Effects of Upper Lid Blepharoplasty and Periorbital Rejuvenation
Philip Langsdon, MD, Memphis, TN

3:30pm Diagnosis and Management of Ptosis and Upper Lid Retraction: Technique and Results of Recession
Steve Klapper, MD, Carmel, IN

3:45pm Extended Lower Lid Blepharoplasty: Treatment of Malar Pouches and Festoons
Stephen W. Perkins, MD, Indianapolis, IN

4:00pm Break

4:15pm Periorbital Resurfacing For Enhancement of Blepharoplasty Results
Devinder S. Mangat, MD, Cincinnati, OH

4:30pm Asian Eyelid Blepharoplasty
Min Ahn, MD, Worcester, MA

4:30pm Non-Incisional Suture Techniques for the Asian Upper Eyelid
Elbert Cheng, MD, Los Gatos, CA

4:38pm Dermal Tattooing (Micropigmentation) “Permanent Makeup” for Eyeliner and Brow Enhancement
Stephen W. Perkins, MD, Indianapolis, IN

4:45pm Panel: Managing Blepharoplasty: Controversy, Complications and Side Effects
Moderator: Stephen W. Perkins, MD, Indianapolis, IN
Panelists: M. Sean Freeman, MD, Charlotte, NC; Philip Langsdon, MD, Memphis, TN; Peter A. Hilger, MD, Edina, MD; Steve Klapper, MD; Devinder S. Mangat, MD, Cincinnati, OH; and J. Regan Thomas, MD, Chicago, IL

Saturday Intense Learning Session 9 (ILS9)
Santa Anita C
This is one of the 5 sessions running per 4-hour block.

Skin Rejuvenation
Moderator: Steven Dayan, MD, Chicago, IL

Office-Based Estheticians

2:00pm Estheticians: What Is Their Role in a Medical Practice?
Ronald Caniglia, MD, Phoenix, AZ

2:10pm Hiring, Negotiating and Managing an Esthetician
W. Gregory Chernoff, MD, Indianapolis, IN

2:20pm Cosmeceuticals and Sunscreens: Which Ones Do Anything?
Joel Cohen, MD, Denver, CO

2:30pm Evaluation of Hand-Held Facial Toners for the Aging Face

2:38pm Microdermabrasion: What Does It Really Do?
Mark Hamilton, MD, Indianapolis, IN

2:45pm Starting a Medispa: Is It Worth It and What Does It Take?
Mitchell Goldman, MD, Los Angeles, CA

Ablative Skin Rejuvenation Techniques

3:00pm What is the Role of the CO2 Laser Today?
Mark Hamilton, MD, Indianapolis, IN

3:10pm The Minimal Downtime, High Patient Satisfaction Erbium YAG Micropeel Resurfacing

3:18pm Fraxel Lots of Hype, Any Substance?
Jon Mendelsohn, MD, Cincinnati, OH

3:28pm Medical Roll-Cit: Introducing a Simple Yet Effective Form of Collagen Stimulation
Philip J. Miller, MD, New York, NY

3:38pm Chemical Peels and Laser Peels Contrasted: Which is Better For Your Patients? For Your Practice?
Robert Kotler, MD, Los Angeles, CA

Non-Ablative Skin Rejuvenation

3:53pm Myths and Realities, Are We Setting Ourselves Up for Disappointed Patients?

4:03pm Demystifying Non Ablative Laser Skin Rejuvenation?
E. Victor Ross, MD, San Diego, CA

4:13pm Advances in Light Therapy IPL
Corey S. Maas, MD, San Francisco, CA

4:23pm Thermage and the Radiofrequencies: Are They Worth It?
James Newman, MD, San Mateo, CA

4:33pm LED Technology Looking at the Controversy from Both Sides
Ranella Hirsch, MD, New York, NY

Other

4:43pm Complications of Skin Rejuvenation and How to Handle Them
Ranella Hirsch, MD, New York, NY

4:53pm Thread Lifting: The Physiological Reasons for Using Cable Threads
David A. Ellis, MD, Toronto, ON

5:03pm Levulan in Addition to Non-ablative, How Easy and Safe is it to Do?
Richard D. Gentile, MD, Youngstown, OH

5:13pm Photodynamic Therapy
Mitchell Goldman, MD, Los Angeles, CA

The Practicities

5:23pm Which Laser Do I No Longer Use and Why?
Panelists: Paul J. Carniol, MD, Summit, NJ; Ronald Caniglia, MD, Phoenix, AZ; Mark Hamilton, MD, Indianapolis, IN; Edwin F. Williams, MD, Latham, NY; Victor Ross, MD; and Mitchell Goldman, MD, Los Angeles, CA
Saturday Intense Learning Session 10 (ILS10)
Santa Barbara A, B, & C
This is one of the 5 sessions running per 4-hour block.

**Rhinoplasty**
Moderator: Peter A. Adamson, MD, Toronto, Canada

2:00pm  Panel: My Technical Pearl: Things that Work for Me
Moderator: Peter A. Adamson, MD, Toronto, ON
Panelists: Gilbert Nolst Trenite, MD, Amsterdam; Russell W.H. Kridel, MD, Houston, TX; Dean M. Toriumi, MD, Chicago, IL; and Norman J. Pastorek, MD, New York, NY

Speakers will discuss a technique that they find most useful, gets them out of problems, provides a premier aesthetic result or something that they have learned in their rhinoplasty experience.

2:45pm  Rhinoplasty Challenges and Solutions Part I
2:45pm  The Taylor Saddle Effacement (TSE): A New Technique for Correction of the Saddle Nose Deformity
Mark Taylor, MD, Nova Scotia, Canada
2:51pm  The Over Resected Ethnic Nose
Paul S. Nassif, MD, Beverly Hills, CA
2:57pm  Discussion
3:04pm  Treatment of Internal Nasal Valve Collapse with Radiesse (CaHA) Spreader Grafting
Tony Mangubat, MD, Seattle, WA
3:09pm  An Adjustable, Butterfly Design, Titanium-ePTFE Implant for Nasal Valve Dysfunction
Charles G. Hurbis, MD, Coos Bay, OR
3:15pm  Discussion
3:21pm  Questions and Answers
3:30pm  Panel: How I Do It Differently
Moderator: Peter A. Adamson, MD, Toronto, ON
Panelists: Gilbert Nolst Trenite, MD, Amsterdam; Russell W.H. Kridel, MD, Houston, TX; Dean M. Toriumi, MD, Chicago, IL; and Norman J. Pastorek, MD, New York, NY

Speakers will describe techniques they use that are contrary to consensus opinion.

4:15pm  Break
4:45pm  Rhinoplasty Challenges and Solutions Part II
4:45pm  Tip Bossea
R. James Koch, MD, Stanford, CA
4:51pm  Nasal Tip Posis: A Dynamic Model to Prevent Long Term Drooping
Mohsen Naraghi, MD, Tehran, Iran
4:57pm  Discussion
5:04pm  Endoscopic Repair of Nasal Septal Perforation Using a Low-Tension Posteriory-Based Septal Mucosal Flap
Behrooz Torkian, MD
5:09pm  Discussion
5:15pm  Questions and Answers
5:30pm  Debate: Resolved Open Septorhinoplasty is Better than Closed Septorhinoplasty
Debators: Alvin I. Glasgold, MD, Highland Park, NJ and Geoffrey Tobias, MD, Newark, NJ
Panelists: Russell W.H. Kridel, MD, Houston, TX; Gilbert Nolst Trenite, MD, Amsterdam, The Netherlands; Norman J. Pastorek, MD, New York, NY; and Dean M. Toriumi, MD, Chicago, IL

SUNDAY, SEPTEMBER 25, 2005
GENERAL SESSION
San Francisco Ballroom
8:00am-1:00pm  Papers Presentations with Discussion
8:30am  The Four Suture Tip Rhinoplasty—A Powerful Tool for Controlling Tip Dynamics
R. Athre, MD; J. L. Leach, MD, Dallas, TX
8:40am  Management and Clinical Outcomes in the Treatment of Acute Nasal Fractures
J. R. Spencer, MD; D. Leake, MD; T. D. Doerr, MD, Rochester, NY
8:50am  Somnoplasty of the Inferior Nasal Turbinates
M. A. Persky, MD, Encino, CA
9:00am  Algorithm for Analysis and Correction on Nasal Tip Deforimities in Revision Rhinoplasty
S. S. Rizk, MD; D. R. Rosenberg, MD, New York, NY
9:10am  The Taylor Saddle Effacement (TSE): A New Technique for Correction of the Saddle Nose Deformity
S. M. Taylor, MD, Nova Scotia, Canada
9:20am  Endoscopic Repair of Nasal Septal Perforation Using a Low-Tension Posteriorly Based Septal Memosal Flap
B. A. Torkian, MD; A. M. Sepehr, MD; A. M. Karamzadeh, MD; K. L. Olson, MD; T. F. Kelley, MD, Irvine, CA
9:30am  The Effects of Different Degrees of Crushing on the Viability of Cultured Human Nasal Septum Chondrocytes
H. O. Cakmak, MD; F. Buyuklu, MD; Z. Yilmaz, MD; F. I. Sahin, MD; E. Tarhan, MD; L. N. Ozelouglu, MD, Ankara, Turkey
9:40am  Alar Rim Grafting in Septorhinoplasty: Indications, Technique, and Outcome
K. D. O. Boahene, MD; P. A. Hilger, MD, Edina, MN
9:50am  Nasal Tip Posis: A Dynamic Model to Prevent Long Term Drooping
M. Naraghi, MD, Tehran, Iran
10:00am  Shortening of the Intermediate Crura: A Targeted Technique in Treating Tip Overprojection
J. B. Wise, MD; S. S. Becker, MD; A. M. Karamzadeh, MD; M. Sparano, MD; D. B. Becker, MD, Philadelphia, PA
10:10am  Non-Surgical Rhinoplasty Using Calcium Hydroxyl Apetite for Soft Tissue Augmentation
A.Z. Rivkin, MD, Westwood, CA
10:20am  An Adjustable, Butterfly Design, Titanium-ePTFE Implant for Nasal Valve Dysfunction
C.G. Hurbis, MD, Coos Bay, OR
10:30am  The Endonasal Open Book Approach to the Dorsum Nasal Septum: A Tool for Revision Septorhinoplasty
R. W. Westreich, MD; W. Lawson, MD, DDS, New York, NY
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<th>Time</th>
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<td>11:10am</td>
<td>Rapid Recovery Rhinoplasty</td>
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<td>D. R. Rosenberg, MD; M. J. Kortbus, MD; S. S. Rizk, MD; A. Lessow, MD;</td>
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<td>N. J. Pastorek, MD, New York, NY</td>
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<td>11:20am</td>
<td>Anterior Septal Graft for Secondary Tip</td>
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<td>Projection-A Preliminary Report</td>
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<td>B. S. Orisek, MD, San Jose, CA</td>
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<td>11:30am</td>
<td>Non-Surgical Nasal Tip Rotation with Botox</td>
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<td>J. J. Kemphins, MD; Chicago, IL</td>
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<td>11:40am</td>
<td>Technique for Achieving a Smooth, Symmetric and Natural Appearing Nasal</td>
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<td>S. H. Dayan, MD, Chicago, IL</td>
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<td>11:50am</td>
<td>Nasal and Facial Width After Nasal Osteotomy</td>
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<td>M. J. Kortbus, MD M. S. Constantinides, MD; J. Ham, MD; F. Fechner, MD;</td>
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<td>7:30am-1:00pm</td>
<td>Essentials in Facial Plastic Surgery Workshop</td>
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<td>Stephen S. Park, MD</td>
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<td>(See page 25 for schedule)</td>
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<tr>
<td>9:00am-1:00pm</td>
<td>Instruction Courses 33-55</td>
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<td>(See pages 21-24 for titles, descriptions, and rooms)</td>
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<td>1:00pm</td>
<td>Meeting Adjourned</td>
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**SUNDAY INSTRUCTION COURSES**

*There are 5 to 6 courses running per hour.*

**9:00 – 9:50am**

**IC 35 Cephalometrics and Skeletal Surgery for Dummies**

*San Gabriel A*

Edward W. Chang, MD, New York, NY

When considering facial contour changes, the surgeon contemplates the face not just as bony protuberances, but rather, as 3 dimensional prominences consisting of soft tissue components and bone. The goals of this instructional course are to outline, in a simplistic manner, the process of completing cephalometric tracings and measurements, as well as reviewing bony surgical techniques. The cephalometric evaluation will include measurements of sella-nasion-subspinale A-point of the maxilla (S-N-A) and sella-nasion-supramentale B-point of the mandible (S-N-B) angles to provide information on the sagittal relationship between the anterior skull base and the maxilla and mandible, respectively. Skeletal contouring procedures will be reviewed utilizing powerpoint presentations and video clips. The nose, malar, and chin regions contribute the most to the balance of the face. Skeletal asymmetries or deficiencies, as well as soft tissue changes may result in sub optimal aesthetic situations. A discussion of the various modalities, and their advantages and disadvantages will be a part of this course. Having the ability to analyze the hard and soft tissues, in addition to performing the surgeries, will give the patient all of the options to achieve a balanced and harmonious appearance.

**Learning Objectives:** Participants should be able to: 1) discuss facial contour techniques used in esthetic surgery; 2) identify skeletal surgeries used in facial esthetic contouring; and 3) indicate a simplistic method of analysis, including cephalometric measurements.

**IC 36 Advanced Nasal Reconstruction**

*San Gabriel B*

Kevin A. Shumrick, MD, Cincinnati, OH

This course is designed to update the attendees on the current state of the art for reconstructing major nasal defects. Topics to be discussed include: modification of the subunit principal, forehead flap design and management, cartilage grafting and total nasal reconstruction. At the end of the course the attendee should have a current knowledge of how to reconstruct major nasal defects.

**Learning Objectives:** Participants should be able to: 1) understand how the modified subunit principal differs from the classic subunit principal and how to apply it in nasal reconstruction cases; 2) apply current knowledge of forehead anatomy and blood supply to the design and implementation of forehead flaps for nasal reconstruction; and 3) be able to harvest and utilize auricular cartilage grafts for structural support in nasal reconstruction.

**IC 37 Nuances in Rhinoplasty**

*San Gabriel C*

Richard E. Davis, MD, Miami, FL

Rhinoplasty is slowly evolving from a generic procedure utilizing aggressive tissue excision, to a highly individualized operation in which skeletal tissues are conserved, strengthened, and precisely re-contoured. The resulting outcomes are typically more durable, more functional, and more aesthetically appealing. Nuances and pearls of contemporary Rhinoplasty will be presented in this instructional course. Emphasis will be placed upon accurate patient analysis, fundamentals of tip modification, and conservation of vital skeletal support.

**Learning Objectives:** Participants should be able to: 1) discuss the essentials of aesthetic analysis in cosmetic rhinoplasty; 2) discuss the fundamentals of alar cartilage modification; and 3) recognize pitfalls of rhinoplasty and possible complications of aggressive tissue excision.

**IC 38 Aging Well**

*Santa Barbara A*

Edward H. Szachowicz, II, MD, Edina, MN

One hour discussion of how to incorporate the “Longevity Revolution” into your aesthetic practice. The new language of “Vital Aging” is on the minds of a large demographic of out target audience. Participants should receive a current understanding of what current concepts and perceptions that our patients bring to the office. Practice models will range from being an information resource to actual patient management options.

**Learning Objectives:** Participants should be able to discuss concepts of aging and use resources to apply concepts of patient management to practice.
IC 39 Fundamentals of Reduction Rhinoplasty
(This is a 2-hour course; 2nd hour continues at 10:00am)
Santa Barbara B
Leslie Bernstein, MD, DDS, Sacramento, CA
This course is a comprehensive presentation of every aspect of reduction rhinoplasty. To begin with, it presents a well-tried technique of local block and infiltration anesthesia under a safe conscious sedation regimen – ideally suited for an office-based operating room. The basic steps of a typical operation are demonstrated step-by-step in great detail, supplemented with illustrations of anatomic dissections. Specific attention is devoted to the dynamics of reshaping the nasal lobule, with detailed directions for achieving particular goals, such as: Tip rotation, narrowing and retraction. Several methods for narrowing the alar base of the nose and reduction of the size and shape of the alae are also presented; and the rationale for each maneuver is explained in detail. Also included are steps for reducing the bony and cartilaginous vaults and how to handle unexpected problems that may arise. An accompanying 3-page handout lists the detailed surgical steps that may be used in a logical, progressive sequence for achieving any of the goals presented, and also provides details of the conscious sedation regimen. The level of this course is suitable both for residents and practicing otolaryngologists and facial plastic surgeons.
Learning Objectives: Participants should be able to demonstrate steps of typical reduction rhinoplasty operation and discuss methods of reduction rhinoplasty.

10:00 – 10:50am
IC 40 Advanced Nasal Tip Surgery
San Gabriel A
Peter A. Adamson, MD, Toronto, ON
This course presents the essential anatomy and dynamics of the nasal tip. The significance of the major nasal parameters of length, projection, rotation and lobule definition is described and illustrated. The tripod concept is presented and a new concept, The M-Arch Model™, is described and illustrated. The various surgical maneuvers that are utilized to alter the tip defining points and lobule refinement are illustrated with patient photographs and anatomic artwork. Imbedded video is used to illustrate the application of the techniques presented.
Learning Objectives: Participants should be able to discuss concepts of nasal tip surgery and demonstrate surgical maneuvers in tip surgery.

IC 41 Effective Use of Injectable Fillers in Lips
San Gabriel B
David A.F. Ellis, MD, Toronto, ON
Dr. Ellis will review the aging lip and corners of the mouth and explain what happens to the lips depending on where the injection was placed. It will stress the use of the non-dominate fingers in keeping the injected material exactly where you wish it to go. It will review the use of permanent + temporary fillers that he has used over the last several years including the Restylane group of products as well as Artecoll which is coming to the USA shortly.
Learning Objectives: Participants should be able to determine proper placement of injection and discuss current and future fillers.

IC 42 Reconstruction of Small and Medium Facial Defects
San Gabriel C
Michael Godin, MD, Richmond, VA
This course details an approach to facial defects which can be tailored to the majority of patients requiring reconstruction after skin cancer removal. Emphasis is placed on achieving natural appearing results, preserving function, and techniques of post-op care which can have excellent results.
Learning Objectives: Participants should be able to: 1) discuss the challenges and opportunities presented by facial defect reconstruction; 2) select the best available reconstruction; 3) execute the procedure; and 4) take care of the patient postoperatively to protect and improve the result.

IC 43 Obtaining Superior Results in Endo-nasal Rhinoplasty
Santa Barbara A
Steven J. Pearlman, MD, New York, NY
Excellence in rhinoplasty is based on a systematic approach including analysis, selection of techniques, and performance of surgery followed by critical evaluation of results. Each patient must be carefully evaluated and compared to cosmetic and ethnic standards. Only then can appropriate surgical techniques be applied. Understanding of the consequences of each surgical maneuver on structure is paramount for a harmonious result. Excellence in Rhinoplasty requires critical evaluation balancing cosmetic expectations with the constraints of ethnicity. The approach includes analysis, surgical technique selection, followed by critical evaluation of results. Understanding the consequences of each “maneuver” upon the nasal structure is paramount. Sample patients will be presented ranging from simple to complex cases. These principles can expand surgical experiences into a series of esthetically harmonious results.
Learning Objectives: Participants should be able to: 1) perform pre-operative nasal analysis; 2) recommend appropriate changes for each nose; and 3) apply suitable techniques to achieve surgical goals.

IC 44 Fundamentals of Reduction Rhinoplasty, Part 2 of 2-hour course (Continued from 9:00am)
Santa Barbara B
Leslie Bernstein, MD, DDS, Sacramento, CA

IC 45 Thirty Years of Practical Pearls in Facial Rejuvenation
Santa Barbara C
Sigmund L. Sattenspiel, MD, Freehold, NJ
Successful outcome is the goal of facial rejuvenation surgery. This course offers a bevy of practical concepts and procedures with technical nuances that have evolved over the past 33 years in seeking to maximize aesthetic refinements. A potpourri of clinical entities are featured, elaborating personal approaches to routine and enigmatic problems. Useful pearls, tips and tricks with demonstrable benefits are detailed. Controversies are presented and patient management issues are discussed. Practical instruction is stressed; interactive dialogue is encouraged.
Learning Objectives: Participants should be able to improve technical skills and offer patients enhanced aesthetic refinements and rejuvenating qualities in routine and problem causes.
11:00 – 11:50am
IC 46 Total Facial Makeover from Consultation to Execution
San Gabriel A
Jonathan M. Sykes, MD, Sacramento, CA
With the recent media attention given to total facial makeovers, more patients are accepting of and requesting multiple simultaneous procedures. Most courses are procedural oriented and do not address diagnosis and perioperative care of the facial rejuvenation patient. This course discusses the complete care of the patient undergoing a complete facial "makeover", including diagnosis of the individual aging process, psychological analysis, choice and execution of surgical procedures, and perioperative management.

Learning Objectives: Participants should be able to: 1) develop individualized treatment plan for the aging patient; 2) precisely choose the procedures that best meet the patient’s needs; 3) discuss the perioperative counseling and informed consent process; and 4) discuss the nuances of properly executing multiple simultaneous procedures.

IC 47 Office Based Facial Plastic Surgery for the Otolaryngologist
San Gabriel B
Steven H. Dayan, Chicago, IL
Many of today’s patients seeking aesthetic treatments are requesting procedures that provide for the maximum benefit with the least amount of downtime. Most of these procedures have shallow learning curves, can be performed in minutes and are well tolerated by the patient. Treatments such as Botox® and collagen have been used for over 20 years with well-established safety records. Lasers, which many otolaryngologists are familiar with, have expanding indications for office based aesthetic use. And many practices are adding non-medical skin care specialist, estheticians, to treat their cosmetic patients. Otolaryngologists, who are considering adding these services, can feel very comfortable.

Learning Objectives: Participants should be able to: 1) recognize the most commonly used facial plastic office based procedures; 2) assess esthetics and how to incorporate these paraprofessionals into your practice; 3) use resources if seeking further information or training; 4) select marketing pearls to help promote these products and services; 5) recognize sales strategies for incorporating these procedures into your practice; and 6) use tools for starting immediately.

IC 48 A Simplified Approach to Alar Base Reduction
San Gabriel C
Russell W.H. Kriel, MD, Houston, TX
Modification of the nasal base is not a routine part of rhinoplasty and should be implemented in a conservative manner as over-resection is extremely difficult to correct. The two major problems encountered are alar flare and nasal sill excess.

Learning Objectives: Participants should be able to: 1) describe three different techniques to be utilized separately or in conjunction that will accommodate almost all alar wedge excisions; and 2) suggest a treatment algorithm for how to approach this problem.

IC 49 Congenital Auricular Anomalies: Evaluation and Treatment
Santa Barbara B
Robert O. Ruder, MD, Los Angeles, CA
Auricular deformities can be one of the most satisfying or frustrating experiences facial plastic surgeons may encounter. Deformities of the external ear range from the simple protruded auricle to severe microtia with atresia of the canal. Too often auricular reconstruction becomes an intraoperative experience of frustration. Evaluation of mild and severe auricular deformities must begin early to often avoid surgery, and to gain vital information regarding other organ systems that may also be maldeveloped. We shall use digital slides and handout of algorithms to help achieve consistently acceptable and lasting results. Reconstruction of the ear must be properly positioned on the face, be constructed in a three leveled auricular framework, and be started before otologic surgery for hearing restoration. This one hour didactic course will help the facial plastic surgeon better evaluate and reconstruct the deformed auricle.

Learning Objectives: Participants should be able to evaluate the deformed auricle and demonstrate reconstruction techniques for the deformed auricle.

IC 50 Closed Structure Rhinoplasty: A Universal Endonasal Tiplasty Technique
Santa Barbara C
Geoffrey Tobias, MD, Newark, NJ
This discussion will elucidate upon the fundamentals of a recently developed rhinoplasty technique called closed structure tipplasty. The basic approach will be described and will show how it predictably alters over projected, under projected, asymmetric, amorphous, and revision tip problems. This stepwise process of endonasal lower lateral crus disruption, dome reconformation, and crural reassembly provides a logical, relatively simple, versatile technique based upon Andersons theory of tip support. Because it can effectively alter an extremely wide spectrum of tip architecture, it could be considered a universal technique.

This technique provides for significant alterations in tip architecture that are aesthetic, natural, physiologic, as well as enduring.

Learning Objectives: Participants should be able to assess the closed structure tipplasty technique and evaluate the step-by-step process of the technique.

12:00 – 12:50pm
IC 51 Recent Advances in Facial Trauma
San Gabriel B
Robert M. Kellman, MD, Syracuse, NY
Description: This presentation will discuss recent advances in the management of maxillofacial trauma. The contrast between the benefits achieved through minimal access approaches will be discussed. The benefits of each approach will be elaborated through explanations and case demonstrations. The use of endoscopes in the repair of facial fractures, including subcondylar fractures of the mandible, orbital floor fractures, and frontal fractures will be demonstrated including benefits and pitfalls of these approaches.

Learning Objectives: Participants should: 1) become familiar with recent advances; 2) understand the use of endoscopes in facial trauma; and 3) be familiar with advantages and disadvantages of extended access and minimally invasive approaches.
IC 52 The Pros and Cons of Academic Medicine in Facial Plastic Surgery  
San Gabriel C  
R. James Koch, MD, Stamford, CA  
One of the biggest decisions for a young Facial Plastic Surgeon is whether to enter an academic setting or private practice. This course plans to take a very frank look at the pluses and minuses of an academic career. Topics to be covered include expectations regarding publications and grants, establishing a research niche, mentoring sources and conflicts, types of appointments and salary expectations, time management, the joys and stresses of resident teaching, securing a position, fitting into a department with other subspecialties, and strategies for success. The target audience is residents, current and future fellows, and anyone who is thinking about a career switch.  
Learning Objectives: Participants should be able to: 1) better assess whether an academic career would be an appropriate choice; 2) outline some clear advantages and disadvantages of a university-based practice; and 3) design a strategy to secure a position and succeed based upon one’s strengths.

IC 53 Westernization Rhinoplasty  
San Gabriel A  
Paul S. Nassif, MD, Beverly Hills, CA  
Numerous techniques with and without tip grafting have been described in our literature about westernization of Rhinoplasty. This procedure has a steep learning curve and the results are unpredictable due to the thick nasal skin-soft tissue envelope. This course will discuss surgical techniques of the dorsum, tip and ala, post-operative treatment to reduce nasal tip swelling results and potential complications.  
Learning Objectives: Participants should be able to: 1) be familiar with nasal dorsum augmentation with native cartilage or allografts; 2) demonstrate tip refinement (narrow, increase projection and rotation; without tip grafting) and; 3) discuss minimal scar alar base reduction methods.

IC 54 Otoplasty Made Simple  
Santa Barbara B  
J. Regan Thomas, MD, Chicago, IL  
This course will enable the participant to have an understanding of auricular anatomy and auricular facial relationships, typical abnormalities creating a need for surgery, an appropriate mechanism for pre-operative analysis, and a stepwise approach to the techniques of corrective surgery through Otoplasty. An emphasis will be placed on pre-operative analysis and selection of a specific operative plan to correct each individual’s auricular deformity is to be stressed. Discussion will be enhanced through patient photographs as well as video instruction of operative technique. A variety of external auricular abnormalities will be demonstrated with the specific operative plan that can be utilized for proper correction discussed.  
Learning Objectives: Participants should be able to discuss auricular anatomy and typical abnormalities and demonstrate techniques of corrective surgery through otoplasty.

IC 55 Avoiding Complications in Facelift Surgery  
Santa Barbara C  
William H. Truswell, MD, Northampton, MA  
One of the most sought after facial rejuvenating surgeries both for aging patients and the facial plastic surgeon trying to establish him/herself as an accomplished anti-aging surgeon is the facelift. Learning to do the operation skillfully with excellent consistent results and minimal complications can be an arduous and daunting process. In all surgical endeavors, complications occur. When they happen in the facelift operation they can have a glaring and unhappy result that is deleterious to the patient and the surgeon. This presentation will outline and describe how this surgeon has kept problems at a minimum from thirty years experience in facelift surgery, and the techniques and insights employed in 70 to 80 facelifts each year.  
Learning Objectives: Participants should be able to discuss techniques for consistent results and demonstrate facelift techniques to minimize complications.
ESSENTIALS IN FACIAL PLASTIC SURGERY
Avalon
9:00am-1:00pm, Sunday, September 25, 2005
Director: Stephen S. Park, MD, Charlottesville, VA

7:30-8:10am Maxillofacial and Soft Tissue Trauma
An overview of soft tissue and facial fractures in terms of their diagnosis and management will be provided.
John L. Frodel, Jr., MD, Danville, PA

8:10-8:50am Browlift and Blepharoplasty
Rejuvenation of the aging upper face will include the analysis, indications, and various surgical techniques used.
Tom D. Wang, MD, Portland, OR

8:50-9:30am Rhinoplasty
Cosmetic and functional aspects of rhinoplasty are covered including evaluation, fundamental techniques and complications.
Dean M. Toriumi, MD, Chicago, IL

9:30-9:40am Break

9:40-10:20am Cutaneous Lesions and Flaps
A review of common skin lesions in terms of diagnosis and treatment options. Algorithms for local flap selection and proper design will be covered.
Stephen S. Park, MD, Charlottesville, VA

10:20-11:00am Facelift/Liposuction/Cutaneous Resurfacing
This will cover the management of the aging lower face with emphasis on patient selection, treatment options, surgical techniques, and complications.
Craig S. Murakami, MD, Seattle, WA

11:00-11:10am Break

11:10-11:50am Head and Neck Reconstruction/Facial Paralysis
A review of the major flaps utilized in head and neck reconstruction, including the “nuts & bolts” of myocutaneous and microvascular flaps. This also covers the basic management and rehabilitation of facial paralysis.
Terry Day, MD, Charleston, SC

11:50-12:30pm Syndromes and Congenital Problems
This will include an overview of cranial facial problems such as clefts, microtia, and syndromes involving the face, head, and neck. It covers the heredity, initial team management, and surgical techniques.
Jonathan M. Sykes, MD, Sacramento, CA

12:30-1:00pm Cleft Lip and Palate
Patient evaluation and review of timing and methods of closure. Special attention to the communication with and management of patient and parent.
Karl J. Eisbach, MD, Albuquerque, NM

ORGANIZATION OF FACIAL PLASTIC SURGERY ASSISTANTS PROGRAM
Beaudry B
Thursday, September 22, 2005

7:30am Check-in and Continental Breakfast
8:00am Welcome
OFPSA President, Beth Stern
8:15am Orientation for Attendees
OFPSA Vice President, Dianne Bourque, RN
8:30am Professional Etiquette in the Medical Practice
Karen Hickman, Professional Courtesy Corp
10:30am Break
10:50am The Use of Scripting in Your Practice
Beth Stern, Springfield, MO
11:30am OFPSA Business Meeting
12:30pm Break
12:45pm John Conley Lectureship and Luncheon
12:00pm Developing Leadership and Teamwork Skills
Samuel Lam, MD, Plano, TX
3:00pm Homeopathy/CAM in Your Practice
3:45pm Break
4:00pm Roundtable Breakouts
Practice Management Nursing Forum Aesthetic Services
5:00pm What’s New with the OFPSA
Dianne Bourque, RN

Friday, September 23, 2005

8:00am A Nurse Injector’s Experience
8:40am The Oprah Factor - Open Forum Discussion
9:00am Five Deadly Sins of Medical Marketing
Dana Fox, VP of Inform Solutions
10:00am Strategies for Building Cosmetic Revenue
Dana Fox, VP of Inform Solutions
11:00am FACE TO FACE: Helping Your Physician Help Others
Ann Kent Holton, Director of Development and Humanitarian Programs, AAFPRS Foundation
11:15am Break
11:45am Accreditation Update
12:30pm Evaluations, Certificates, and Raffle Drawing
12:40pm Adjourn
12:45pm Lunch in the Exhibit Hall
1:30pm Mini MBA for Physicians and Office Staff

Saturday, September 24
2:00pm Intense Learning Sessions
Session 6: Practical Issues in Practice Management
Session 7: Public Relations Forum
Session 8: Skin Rejuvenation
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The J-Lift/Internal Facelift for Facial Rejuvenation
J.L. Leach, MD; D.J. Verret, MD; J.E. Gilmore, MD
Dallas, TX

Introduction: The facelift procedure is intended to smooth redundant skin in the midface, lower face and neck, ideally improving melolabial folds, jowling and the mentocervical angle. Problems with facelifting include hematoma, infection, conspicuous scars, alopecia, skin slough and nerve injury. While greater tension on the soft tissue flaps may result in better smoothing, patients may end up with widened or hypertrophic scars, auricular displacement and a “wind-swept” look. More extensive lateral to medial undermining may lessen these problems, but recovery time is longer and the likelihood of nerve injury and hematoma is greater. Deep plane and composite lifts also may be associated with good results, but suffer from similar drawbacks.

The J-lift/internal facelift overcomes these problems by incorporating a subperiosteal dissection associated with malar and prejowl implants. With this procedure, two of the major retaining ligaments of the face (zygomatic and the mandibular), are disrupted, allowing better repositioning of soft tissues in planes that are relatively bloodless and pose little risk to motor nerves. This infrastructure remodeling of the malar/mid-face area and the prejowl will foster the “youthful triangle of the face” and to allow a more minimally invasive lift.

Methods: The procedure is performed under local anesthesia with monitored anesthesia care. Tumescent infiltration solution is introduced into the subcutaneous planes of the cheek, neck and postauricular areas. Syringe lipoaspiration is then performed in the neck. Where there is prominent platysmal banding, the skin is undermined off of the platysma muscle bilaterally and the excess fat is removed under direct vision. The medial edges of the platysma are approximated to each other. In the jowl, a subperiosteal dissection is carried laterally beyond the mandibular ligament, preserving the neurovascular bundle of V3. The correct chin/jowl or prejowl implant is placed in the bilateral subperiosteal pockets. Incisions are then made in each canine fossa area. The periosteum is dissected superolaterally, preserving the V2 neurovascular bundle. The pocket is not overdissected so that the implant will fit snugly. The implants are generally not fixed.

A J-shaped incision is then made, which consists of a transverse sideburn incision extending around the earlobe and into the occipital hairline. Two separate subcutaneous envelopes are developed, one in the cheek/jowl area and one in the postauricular area/neck. Dissection proceeds in the subcutaneous plane, stopping about 5 cm anterior to the tragus. A cutting needle with 3-0 permanent suture is passed through the perios- teum of the zygomatic arch, and using the same suture, several progressive bites of the cheek and jowl SMAS are taken. As the suture is tightened, the SMAS is first plicated in a vertical vector and the cheek, jowl and upper neck are smoothed. A posterior-superior vector is then created as additional plication sutures are placed to anchor the SMAS to the superior auricular perichondrium.

The post-auricular and occipital incisions are then developed into a neck flap as the dissection proceeds superficial to the platysmal muscle. The platysma/SMAS layer is suspended to the periosteum of the mastoid using permanent suture. As this suture is tightened, further improvement in the cervico-mental angle is noted. Bleeding is controlled by unipolar cautery, avoiding the underside of the skin. Redundant skin is excised using the “dart” technique, and the skin edges are closed. No drains are used, even in male patients.

A retrospective review of 139 patients who underwent J-Lift and internal facelift between 2001 and 2004 by the senior author (JG) was reviewed by an outside observer. Patient satisfaction was assessed and pre and postoperative photographs analyzed. The incidence of alopecia, hematoma, unsightly scarring, infection, skin slough and nerve injury were addressed. Results were analyzed photographically using a 3 point scale—1= minimal improvement, 2=significant improvement, 3=excellent improvement. Three different areas were assessed—the midface, the jowl and the cervicomental angle. Typical “down-time” was assessed.

Results: Of the 139 patients, 119 were women and 20 were men. The average age was at surgery was 60.4 years with a range of 42-80 years old. One hundred and thirty seven patients expressed satisfaction with the technique. The two that did not suffered from extensive adiposity in the neck tissues. There were three complications, which consisted of a small eschar over the tragus, a widened preauricular scar and some asymmetry of one pre-jowl implant. All complications were successfully addressed with minor revision surgery. There were no cases of expanding hematoma, postoperative auricular displacement or injury to cranial nerves 5 or 7. No loss of hair was detectable in the temporal area. Photographic assessment of the results indicated fair to moderate improvement in the midface (1.87 score), and good to excellent improvement in the jowl and cervicomental angle (2.25 and 2.33 scores, respectively).

Patients were generally able to return to work and/or social activities within 10 days.

Conclusion: The cosmetic surgery consumer is becoming better informed. Patients are interested in procedures that are safe, effective and are associated with rapid recovery. Despite the notoriety of deep plane and composite lifts in recent years, the incidence of neurapraxia can range as high as 25% with these techniques. Even with more conventional techniques, the incidence of facial weakness has been reported at 2-3%. The incidence of major hematoma after facelift typically ranges from 1-2%. Our lack of these complications in a series of 139 patients testifies to the safety of this procedure. Auricular displacement, which was noted in a recent study to occur in 62% of facelifts, was not observed in our series. The J-lift/internal facelift offers a safe, effective option for facial rejuvenation with minimal postoperative downtime.

Safety and Efficacy of Mid Face Lifts with the Endotine™ Midface Device.
J. Newman, MD, San Mateo, CA

Objective: To evaluate the safety and efficacy of mid face lifting using an absorbable Endotine™ Midface suspension system (Coapt Systems, Inc., Palo Alto, CA)

Background: There are several suspension methods and dissection planes for treating ptosis of the mid face including the malar fat pad. Controlled studies evaluating clinical success from surgeon’s perspective and patient acceptance are needed to evaluate different techniques. A suspension system (Endotine™
Midface/made of poly-lactic acid and poly-glycolic acid polymer received FDA approval for soft tissue suspension in 2003.

Methods: A prospective safety and efficacy study of the Midface Endotine system was begun in 2004 under an approved protocol from the Midlands Institutional Review Board. Ten patients qualified for inclusion in the study and completed mid face lifts with the device and completed assessments at the first post operative visit, 3 month post operative and 6 month postoperative time points. Patients were asked to rate severity scores for bruising, pain, tenderness, and desired cosmetic benefit. The primary surgeon also ranked aesthetic improvement, technical considerations and monitored all patients for possible complications. In addition, clinical outcome for degree of aesthetic improvement in the mid face was ranked by three independent observers at the six month time frame compared to preoperative baseline.

Results: Ten patients completed the six month post operative study. One patient had temporary zygomatic facial nerve paresis which resolved at 3 months. There were no other major complications (infections, extrusions, skin irregularities or implant removals). Tenderness scores diminished significantly between the 3 month and 6 month visits. Nine of ten patients had significant improvements in their aesthetic outcome by independent analysis. One patient experienced minimal change from baseline.

Conclusion: Mid face lifting with the Endotine™ Midface suspension device provided significant elevation of the malar fat pad with improvement in facial contour. Safety of surgical technique was comparable to other published methods of mid face lifts. Patient acceptance of the Endotine™ Midface procedure was very favorable. Temporary tenderness over the malar area can be expected during the first 3 months. Positive clinical results are maintained at the six month postoperative time point.

Trans Blepharoplasty/Endoscopic Forehead-Brow Lifts in Men
W.K. Miles, MD, Ft. Worth, TX
The heavy male brow and receding hairline are a challenge to attain good results. A combination approach with brow suspension sutures through an upper blepharoplasty with an endoscopic forehead lift may provide better results. Technique and results will be demonstrated.

Medium Depth Nonablative Laser Resurfacing Utilizing 532nm Nd:YAG Q-Switched Laser
B.W. Rubach, MD, Aurora, IL
Objective: To demonstrate the efficacy of the Q-switched 532nm Nd:YAG laser at subablative fluences to treat facial cutaneous photoaging utilizing a new nonablative technique. Methods: 75 patients were treated with the 532nm Q-switched Nd:YAG laser at fluences between 0.7 Joules to 0.9 Joules with a 6mm spot size over the entire facial region. Skin biopsy was done pretreatment and post treatment to determine if there were any histologic differences created by the laser treatment. Patients were then asked to complete a questionnaire to determine the perceived benefit of the treatment. A blinded evaluation of preoperative and postoperative photos was undertaken by an experienced physician to determine if there was an identifiable objective improvement following the laser treatment.

Results: All patients were either significantly or extremely satisfied with the results with the average perceived benefit on a scale of 1 to 10 being 8.1. The average improvement as rated by a blinded independent physician evaluation was 7.90. There was no identifiable histologic difference between the pretreatment and post treatment groups.

Conclusion: The Q-switched 532nm laser is an effective modality in treating photoaging and should be widely accepted as a new technique in the minimally invasive arena for cosmetic surgeons. Clear advantages over existing technology are that the final result can be achieved in a single treatment and can be accomplished in an office setting without the need for sedation or general anesthesia. Additional benefits are that the patient has minimal to no down time during recovery.

Lower Eyelid Fat Transposition Blepharoplasty: Pre and Intra-Op Patient Selection and Results
S. Naderi, MD, MA; S.W. Perkins, MD, Indianapolis, IN
The desire to provide patients with a rejuvenated and youthful appearance has resulted in one of the most commonly performed esthetic operations in the world − blepharoplasty. The need for safe and consistent results balances the need for the development and modifications of as well as experimentation with established techniques.

More recently the rearrangement of orbital fat through a lower eyelid blepharoplasty has gained support and favor. Most such techniques described are being performed through a transconjunctival approach. The goal of our present paper is a ‘technique review’ to describe our fat transposition method through a skin-muscle flap approach as well as state our indications for performing this procedure through pre-operative analysis as well as intra-operative findings. Our photographic results attest to the validity of this procedure in the properly selected patient.

A retrospective chart review of 50 patients, who met the selection criteria for undergoing lower eyelid blepharoplasty with fat transposition from the year 2000 through 2004, was carried out. Pre-op photos as well as operative notes were reviewed. Areas of ‘hollowness,’ noted by the operating surgeon, were evaluated by a second surgeon. Post-operative pictures at one month and three months were studied to see whether a smooth contour was established in the lower lid or a bulge of fat herniation was noted. Need for revision with fat reexcision as well as patient and surgeon satisfaction were used as outcome measures.

In our population of carefully selected patients with a hollowness accentuated by a descending cheek fat pad, the use of fat transposition through a skin muscle flap technique allowed for proper contouring with great intra operative visualization and no incidence of patient dissatisfaction or need for revision.

The Isolated Use of the Unilateral Aptos Treads In Face Lifting
D.A.F. Ellis, MD; K. Zakhary, MD, Toronto, ON
The unilateral Aptos treads or sutures were developed by Dr. Issie and have unidirectional barbs only on one end. The other end is smooth and the thickness is a 2-0 Prolene suture. This treads have been used to improve anterior platysma cording, the
lateral component of the lip cheek groove, the jowl, and the lateral drool groove. These threads have been used both in
conjunction with a facelift or as a separate threading procedure. The physiology of the sutures is extremely important as the
lifting occurs exactly where you want it. For instance in the
mid-face the lateral wall of the lip cheek groove can be elevated
or the anterior border the platysma can be secured posteriorly
either in a facelift procedure or as a separate threading proce-
dure. The authors feel that these threads act is suspension cable
device in the specific area in which lifting needs to occur for
maximum result.

The threading cable suspension technique, effectiveness and
complications in 30 patients will be discussed. In the earlier cases
there was some extrusion but lately the extrusion rate has fallen
because of exact placement of the sutures subcutaneously.
Whether performed with a facelift or as a single procedure
patient happiness is more than adequate.

**Comparative Analysis of Midface Effects and Extent of
Lift Achieved with SMAS plication, Imbrication, and
Deep Plane Rhytidectomy Techniques**

J.A. Litner, MD; P.A. Adamson, MD, Toronto, ON

Objective. To quantitatively compare the intra-operative effects
of SMAS plication, imbrication, and deep plane rhytidectomy
techniques via anthropometric measures.

Design. Control trial.

Setting. A private facial cosmetic surgery practice.

Participants. A consecutive sample of patients undergoing
primary deep plane rhytidectomy. Ten patients have been
enrolled to date. Exclusion criteria were history of facial surgery,
trauma, or scarring, and concomitant facial resurfacing proce-
dures. Patients having other concomitant procedures (e.g.,
blepharoplasty, forehead lift) were eligible for inclusion.

Intervention. Primary rhytidectomy.

Main Outcome Measures. Dependent variables included extent
of lift as measured by amount of skin excess and movement of
malar surface markers. Patients acted as their own controls. A
point on the malar soft tissue complex in a plane sagittal to the
lateral canthus was marked preoperatively on both sides. Each
side of the face was then treated sequentially with SMAS
plication, SMAS imbrication, and deep plane dissection, main-
taining equal extent of cutaneous undermining. In each inter-
vention, the SMAS was suspended with a single suture both
posteriorly and anteriorly, placed under maximal tension.

Amount of skin excess was measured without tension from the
free edge to a point over the intertragal incisure, along a plane
overlying the jawline. Midface effects were examined by
measurement of the pre-intervention and immediate post-
tervention distances from the dependent malar point to fixed
anthropometric reference points. Repositioning of the depen-
dent point with respect to referenced horizontal and midsagittal
planes was recorded. A vector of ‘pull’ was calculated based on
these measures.

Results and Conclusions. Mean skin excess to date is 9.2mm,
11.7mm, and 17.4mm for plication, imbrication, and deep plane
techniques respectively. Statistical inferences for these and
remaining measures are pending.

What is the Medico-Legal Implication of a Web-Based
3-Dimensional Interactive Virtual Reality Plastic
Surgery Package?

N. Shamsian, MD; S.J. Southern, MD; S. Wilkinson,
MD, Wakefield, UK

Introduction: The profile of Plastic surgery is now increasing
in popularity partly due to television programmes that bring it
into mainstream viewing. Any remaining taboos over plastic
surgery have gradually disappeared. Increased interest in plastic
surgery is reflected in the 15,470,000 sites worldwide dedicated
to plastic surgery. In the UK in 2004 the number of cosmetic
procedures had risen 18% to 16,367 from 2003. Patients want
more information and greater involvement in decisions about
their treatment according to the Healthcare Commission 2004
survey in the United Kingdom. The results of the survey reveal
that patients are being discharged without enough information.
Risks, benefits and expected outcomes of treatments still need to
be communicated better to patients. There has also been a
substantial increase in recent years of medico-legal claims against
surgeons in the United Kingdom. Last year the bill for medical
negligence faced by the National Health Service amounted to
£2.6 billion, double the amount in 1997. Plastic Surgery has
traditionally been one of the specialties most vulnerable and
prone to medical negligence claims. Since plastic surgery
involves a large proportion of elective procedures surgery it is
vital that the patient expectations are realistic and the match
those of the surgeon. Research shows that conflicts arising
between doctors and patients are directly related to the quality
of interaction and the attitudes of the surgeon both pre and post-
operatively. Other factors increasing the vulnerability of plastic
surgeons include the portrayal of the image of plastic surgery
through advertisements, publications, and the media. Research
shows that only 20% of information is retained when words and
2D models are used to explain surgery. Immediately following a
consultation, patients recall only a small percentage of informa-
tion. In particular, retention of possible post-operative complica-
tions is poor. It has been shown that verbal and written infor-
mation supplied to a patient may be understood, but it is easily
and quickly forgotten. Interactive multimedia tools have
revolutionised the games, aeronautics, and engineering industries
and have been successfully used in surgical training and assess-
ment. Recent developments in communications networks with
international high-speed computer nets and wireless technology
have increased the potential of web-based patient education.
The use of animated 3D multimedia computer games has
unleashed a realm of fantasy worlds where you can design your
own virtual world and people.

Methods: We will be presenting a 3D eyelid model using 3D
Studio Max and motion capture to recreate real human face
motion in patients undergoing eyelid surgery. Using a virtual
navigation tool the patient can move through the anatomical
layers. Using high-quality 3D animation, each step of surgery
with relevant anatomy is illustrated and potential complications
are discussed. The patient is able to visualise the close relationship
of the structures in the eyelid. The pace of information retrieval
is set by the patient.

Discussion: Proper documentation of informed consent is critical
and should involve a two way interaction between the surgeon
and patient. Interactive multimedia plastic surgery packages are
Correction of the High Female Hairline
A.L. Ramirez, MD; S.S. Kabaker, MD, Salinas, CA

Objective: Although there are a number of women with hereditary high hairlines, the number of iatrogenic high hairlines has increased with the popularity of endoscopic browplasty. Despite having good brow position, these women continue to have facial disharmony because their disproportionately long forehead makes them appear masculine and older than their years. We present our preferred technique in correcting the position of the female hairline and review the senior author’s 20 year experience.

Methods: The proper technique for lowering the female hairline requires an irregularly irregular trichophytic incision made within the fine hairs of the anterior hairline. The exact beveling of the incision is critical to ensure that hairs will grow through the incision, providing future camouflage of the scar. It is important to distinguish the trichophytic incision from the pretrichial one. In addition, proper and effective advancement of the hairline requires the development of a posterior scalp advancement flap in the sub-galeal plane. Undermining is done to the level of the nuchal line and galeotomies can be done to further advancement. However, if an advancement of greater than 2-3 cm is required, or the scalp is inherently tight, then a scalp expander is often required and the procedure is staged. In addition, endotines and/or Bioglue have been used most recently to stabilize the position of the flap, prevent posterior retraction of the scalp, as well as help in maintaining the position of the brows. Concomitant brow elevation or lowering has been done with this procedure.

Results: The senior authors 20 year experience with this technique was reviewed. Patients were evaluated on the degree of hairline advancement desired and then placed into a scalp expander group and a non-expander group. Patients were then evaluated post-operatively to evaluate average distance of hairline advancement and patient subjective satisfaction with the new hairline placement, as well as camouflage of the trichophytic incision. Complications were minimal and are discussed.

Conclusions: Advancement of the female hairline by means of a trichophytic incision and a posterior scalp advancement flap is an effective and safe technique that has been by the senior author for over two decades. The technique is immediately effective, well tolerated by patients, and associated with minimal complications. Although it is associated with an incision, the presented technique can be used to make the scar virtually invisible.

Pre-Vestibular Alarplasty: Techniques and Results
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Pre-Vestibular Alarplasty: Techniques and Results: Alar contouring in Rhinoplasty can generally be described according to the underlying net effect of the modifying technique. Excisional techniques rely on removal of alar cartilage and the usual subsequent reduction in nasal tip size and configuration. Suture techniques rely on changing the relative position of nasal tip structures and also usually can accomplish a reduction of surface area. Suture techniques are often utilized in conjunction with excisional techniques and help to add additional refinement to excisional techniques. Structural modification techniques involve cartilage scoring or morselization to reshape the cartilage into a preferred shape. Cartilage Grafting techniques utilize the addition of cartilage as a stabilizer or to augment or reshape the nasal tip structure. Cartilage grafting is generally performed external to the alar cartilages. This is true of nasal tip grafts, batten grafts, columellar struts and dorsal onlay grafts. In this paper we examine the concept of pre-vestibular alar grafting, the placement of cartilage grafts underneath the alar cartilages preceeding the alar vestibular mucous membrane hence the designation “Pre-Vestibular” Alarplasty. Pre-vestibular alarplasty consists of infradomal nasal tip cartilage grafts as well as lateral crural stuts. The terminology and location of graft placements will be discussed as well as the distinction of these pre-vestibular grafts from other grafts such as alar batten grafts and alar replacement grafts. The author utilizes pre-vestibular alarplasty techniques often in both primary and revision rhinoplasty. A review of 50 such procedures will accompany the discussion of concepts and technique.

Treatment of Internal Nasal Valve Collapse with Radiesse (CaHA) Spreader Grafting
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Objective: Nasal obstruction is typically multifactorial and frequently involves collapse of the internal nasal valve (INV). The traditional treatment of INV collapse is surgical spreader grafting with autologous cartilage. The authors report their use of Radiesse™, (BioForm Inc, Franksville, WI), a biocompatible calcium hydroxylapatite (CaHA) filler material injected intranasally as a spreader graft, which is a less invasive non-surgical alternative for internal nasal valve collapse.

Methods: Four patients with complaints of nasal obstruction were diagnosed with bilateral INV collapse. Immediate pre- and post-treatment subjective nasal airway patency (SNAP) questionnaires were completed by the patients. After adequate topical anesthesia with 4% cocaine, serial 0.05 ml aliquots of CaHA was injected into the submucoperichondrial plane at the junction of the upper lateral cartilage and septum until nasal breathing subjectively improved. An average of 0.15 ml of CaHA was required to treat each side. A 30° 4mm endoscope was utilized to visualize and video record the INV regions prior, during, and after treatment. A total of eight sides were treated. INV angles immediately after treatment were visually improved compared to pre-treatment angles and correlated well with subjective results. Pre-treatment resting and inspiratory INV angles were evaluated and compared to post-treatment angles using Canfield Mirror software to analyze the images captured during the study. The patients were evaluated two weeks and four weeks post-treatment. SNAP questionnaires were repeated...
and post-treatment inspiratory and resting INV angles were recorded and compared to pre-treatment conditions. Biopsy of the CaHA spreader graft was undertaken for histological evaluation in one patient who underwent elective cosmetic rhinoplasty. In this patient, the need for surgical spreader grafting was eliminated.

Results: All patients experienced immediate subjective relief of nasal obstruction when the CaHA spreader graft was injected. The subjective improvement (SNAP questionnaire) correlated well with INV angle improvement. For example, Patient 1 had documented INV angle increase on the left side at rest from 8.9° to 15.2° and with inspiration from 1.5° to 14.8°. The right INV angle at rest went from 12.2° to 17.4° and with inspiration from 4.0° to 13.8°. The corresponding INV angles on all patients were measurably improved secondary to the cantilever effect of the CaHA spreader graft. All patients reported immediate unmistakable breathing improvement. Two-week and four-week evaluations yielded similar results. While histological findings reveal fibrous tissue with foreign body giant cells, CaHA has been found to elicit a minimal inflammatory response compared to other filler materials.

Conclusion: The CaHA spreader graft was safe and effective in our trial patients and shows great potential as a non-surgical option for INV collapse resulting in nasal obstruction. Monitoring improved nasal airway patency and post-treatment sequelae are an ongoing study.

**Technical Modification of Composite Subperiosteal Midface Lift for Functional Rehabilitation of Irreversible Facial Paralysis**

**G. Lin, MD, Philadelphia, PA**

**Background:** The treatment of irreversible facial nerve paralysis (IFP) in post-operative head and neck cancer patients at risk for lateral tethering after lateral skull base/parotid compartment flap or those whose soft tissues are fixed to the lateral facial skeleton presents complex aesthetic and functional challenges. Soft tissue tethering generally resists standard surgical approaches. We previously presented an innovative technique using composite subperiosteal mid-face lift with nasolabial fold suspension. While it is an excellent option to rehabilitate cheek, nasolabial fold, and oral commissure ptosis in IFP, lateral tethering of graft scar and lip asymmetry and their effects on optimal resuspension are inadequately addressed. Continued tethering imparts focal aesthetic and functional disability troubling to these patients.

**Objective:** This paper details refinement and extension of rehabilitative composite subperiosteal mid-face lift with nasolabial fold suspension with the use of Z-plasty for lateral scar release and wedge resection of the lower lip. It further outlines identification of patients who have IFP complicated by lateral facial tethering and fixation in need of advanced rehabilitation.

**Methods:** The original technique offers direct exposure to maximally reposition the lower eyelid, malar fat pad, mid cheek, nasal ala, nasolabial fold, and oral commissure. Addition of Z-plasty enables full lateral face mobilization at the graft scar while the wedge resection corrects lower lip laxity and fullness.

**Results:** Analysis of the new technique, using vectors and principles of surgical facial aesthetics reveals utility of Z-plasty in overcoming downward vectors created through interaction of scarring and gravity after reconstruction. IFP generates lip laxity and disproportion as the lower lip lengthens with loss of isotonic muscular support. Representative cases, comparing the original and the new techniques, illustrate aesthetic and functional advantages gained with addition of Z-plasty and lip wedge resection. Restoration of a more natural mid-face position and lower lip position and appearance are highlighted.

**Conclusions:** The treatment of specific cases of IFP is enhanced with the addition of Z-plasty and lip wedge resection to subperiosteal mid-face lift with nasolabial fold suspension. This addition corrects lateral face and oral commissure deficits not addressed in both standard and subperiosteal approaches to surgical rehabilitation.

**Cosmetic Surgery in “Reality” and Dramatic Television: The Influence On Public Perception**

**G. Aharonov, MD, MS; M. Godin, MD, Richmond, VA**

Cosmetic surgery has recently garnered unprecedented attention in the media. “Reality” makeover shows, daytime talk shows, dramatic shows, as well as the print media, have all adopted cosmetic surgery as a popular subject. We developed a questionnaire to examine positive as well as negative perceptions of cosmetic surgery, and how these perceptions are affected by exposure to it in the media. A series of statements were presented which subjects rated their agreement with on a scale of 1 to 7; 1 signifying “strongly disagree”, 4 “neutral”, and 7 “strongly agree”. A series of questions were then asked about personal exposure to cosmetic surgery, including different types of media exposure, knowledge of people who have had such procedures, or personal experience with cosmetic surgical procedures. The questionnaire was completed by 157 subjects: 65 men, and 92 women, ranging in age from 18 to 72. Of these, 109 subjects reported having media exposure to cosmetic surgery (69%). There was no difference between those exposed to the media (EXP) and those not exposed (NO EXP) in how they viewed the media’s influence on their perceptions. EXP subjects, however, had a much more positive view of cosmetic surgery than the NO EXP group (5.49 vs 3.65 p<0.01). Those in the NO EXP group also had greater negative feelings than the EXP group regarding people who have cosmetic surgery (4.63 vs 2.71 p<0.01). Subjects in the NO EXP group were also more likely than the EXP group to prefer aging naturally as opposed to having cosmetic surgery (5.31 vs 2.91 p<0.01). NO EXP subjects perceived cosmetic surgery to be more risky and dangerous than the EXP subjects (5.35 vs 3.65 p<0.01).

**CONCLUSIONS:** Although it is possible that people with a greater interest in cosmetic surgery are more likely to be exposed to such media, this study suggests an influential role of the media in affecting public perception regarding this surgical field. Those subjects reporting exposure to cosmetic surgery related media content had a more favorable outlook of cosmetic surgical procedures, patients, and practitioners. They stated that they would be more likely to desire such procedures performed upon them. They also had fewer negative perceptions of cosmetic surgery. If these trends in the media continue, they may translate to a greater degree of interest and public comfort with this specialty. Our findings also underscore the importance of accurate portrayal of cosmetic surgery in the media.
Efficacy of the Erbium:YAG Subablative “Micropeel”

R.M. Rehl, MD, Chicago, IL

Objective: To determine the efficacy of a subablative erbium: YAG laser microresurfacing technique for superficial photodamage.

Methods: Twelve female patients with Fitzpatrick skin types II-IV were prospectively enrolled for four treatments separated by one week. The short pulse erbium:YAG laser was set to deliver 240 mJ with a spot diameter of 5-7mm, and pulse frequency of 16-20 Hz (fluence < 2.5 J/cm²). A single pass over the entire face was performed at each treatment session. Three blinded physicians graded pre- and post-treatment photographs for changes in fine wrinkles, coarse wrinkles, dyschromia, skin laxity, and overall appearance. Patients also graded fine wrinkles, coarse wrinkles, red blemishes, roughness, uneven pigmentation, skin laxity and overall appearance prior to each treatment and one month following the fourth treatment.

Results: Physician graded scores demonstrated statistical improvement in dyschromia (p < 0.001) and overall appearance (p < 0.001). Patient subjective scores revealed statistically significant improvement in uneven pigmentation (p < 0.001), overall appearance (p < 0.01) and fine wrinkles (p < 0.05).

Conclusions: The erbium:YAG four treatment subablative “micropeel” is a convenient, effective and safe method for addressing facial dyschromia in women with Fitzpatrick skin types II-III. Patients experienced short in-office treatment time, mild discomfort, minimal post-treatment erythema and little to no recovery time.

The Four Suture Tip Rhinoplasty—A Powerful Tool for Controlling Tip Dynamics

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One of the characteristics defining the aesthetics of rhinoplasty is the correct and proportionate placement of the tip. One method that allows great control in changing tip dynamics is the four suture technique. The four sutures are, namely: a medial crural suture, bilateral intradomal sutures, and an interdomal suture along the cephalic edge. These four sutures produce an equilateral parallelogram resembling a baseball diamond, thus insuring a proper double break to the columnella, adequate spacing and definition of the tip defining points and an appropriate angle of divergence of the lateral crura. We reviewed our series of patients who underwent this technique for tip rhinoplasty from 1996 to 2004.

The records of 84 patients were examined. Preoperative and postoperative photographs were collected and analyzed by the junior author (RA). All cases were performed by the senior author (JL) without the junior author having seen the patients in the preoperative, intraoperative, or postoperative periods. All patients underwent the open approach with placement of a columnellar strut. The technique was not used in patients with relatively weak cartilages or in those with a thick skin-soft tissue envelope. The results were judged with respect to seven dynamic variables: supratip break, projection, rotation, tip shape (triangular vs “boxy”), tip definition, tip symmetry, and the presence of a double columnellar break. Each patient was given a score of −1 (worse than pre-op), 0 (same as pre-op), or 1 (better than pre-op) with respect to each of the above seven variables.

Patients achieved an average score of 5.19 out of a total of 7, with a mean follow-up period of 4 months. This finding is especially meaningful since many patients had satisfactory scores in many of the 7 variables preoperatively. The four suture technique worked best with respect to projection and tip symmetry. The mean score in each of these two categories was greater than 0.85, indicating that greater than 85% of patients had an improved postoperative result with respect to projection and tip symmetry in comparison to their preoperative tip characteristics.

The four suture technique is a powerful tool by which the rhinoplastic surgeon can exercise significant control over 7 critical elements of tip dynamics with consistent results.

Management and Clinical Outcomes in the Treatment of Acute Nasal Fractures

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Purpose: The nasal bone is the most commonly fractured bone in the body. Long-term functional and cosmetic problems may occur if the injury is not properly managed. While the standard treatment of closed reduction seems straightforward, the results are less so. Studies have shown a wide range of post reduction residual deformities. We review our institutional experience with nasal bone fractures and discuss measures to improve clinical outcomes.

Patients and Methods: We performed a retrospective chart review on all patients treated for acute nasal fractures within the University of Rochester Otolaryngology Group from 2000-2003. 96 patients were identified and medical records analyzed for patient demographics, treatment rendered, revision rates, and post reduction nasal deformity.

Results: The male-to-female ratio was 2.3:1, and the majority of patients (56%) were from 16-30 years old. The most common causes of injury were sports (42%), altercations (17%), and accidents (16%). Basketball was the most common sport involved, followed by soccer, softball/baseball, and hockey. The average time to repair was 6.8 days after injury. The type of reduction included clinic closed (49%), OR closed (44%), OR closed with septoplasty (4%), and OR open (2%). 72% of adults underwent reduction in the clinic whereas 73% of children underwent reduction in the OR. Based on a return trip to the OR, the total revision rate for all procedures was 9%. An additional 8% were offered revision but declined. The revision rate for clinic closed (11%) was comparable to that of OR closed (10%). None of the patients reduced with OR open or OR closed with septoplasty underwent revision. A post reduction residual external deformity was noted in 66% (23/35) of the clinic closed group versus 55% (21/38) for the OR closed and 0% (0/4) for the OR closed with septoplasty groups. 92.3% of patients repaired after 10 days had a residual deformity versus 63.5% repaired within 10 days (P = 0.024). Conclusions: Closed reduction alone results in a high incidence of residual posttraumatic nasal deformities. Implied patient satisfaction, however, can still be high based on low revision rates. Closed reduction performed in the clinic is acceptable and comparable to OR closed reduction. Septoplasty or open septrhinoplasty may have a role in the initial treatment for optimal results.
Somnoplasty of the Inferior Nasal Turbines
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Universal agreement exists that aesthetic rhinoplasty poses the most challenging and difficult of all facial plastic surgery procedures. Yet, a perfect aesthetic result can be compromised by postoperative nasal obstruction and nasal breathing problems. Somnoplasty™, also known as radiofrequency volumetric tissue reduction (RFVTR), offers the rhinoplasic surgeon a quick, outpatient, safe, effective, and easy to perform treatment to improve the nasal airway either preoperatively or postoperatively. One hundred randomly chosen patients treated between April 2000 and July 2001 were retrospectively telephone interviewed by the author one to two years post-treatment. The effect of the treatment on allergies, headaches, sinusitis, snoring, smell, and taste was evaluated. Fifteen of the patients were post-rhinoplasty. 80% of the post-rhinoplasty patients had improvement of their nasal airway and did not require further treatment. Overall 77% of the patients in the study responded favorably. RFVTR of the inferior nasal turbinates offers the post-rhinoplasty patient with nasal obstruction a near ideal treatment for the improvement of their nasal airway. Patients and their families appreciate the non-invasive nature of the treatment. RFVTR of the inferior nasal turbinate is a welcome addition to the rhinoplasty surgeon's armamentarium.

Algorithm for Analysis and Correction on Nasal Tip Deformities in Revision Rhinoplasty
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Consistent correction of tip deformities in revision Rhinoplasty requires proper diagnoses and a detailed understanding of preoperative physical findings. This investigation describes a detailed correlation between nasal preoperative physical findings with the surgical plan. An algorithm was developed to correlate various tip maneuvers to specific surgical corrective techniques. Correction of nasal tip deformities in revision Rhinoplasty entails correction of lower lateral cartilage asymmetries, caudal septal deflections, excessive membranous septum, camouflaging defects in cartilage and sharp edges in grafts with AlloDerm, correcting nasal valve collapse from absent previously excised lower or upper lateral cartilage.

This study retrospectively reviewed 371 patients who underwent revision Rhinoplasty over a 5-year period. Of these patients, 287 underwent revision Rhinoplasty with the open (external) approach and 84 patients underwent the endonasal Rhinoplasty approach. Patients ranged in age from 16 – 75 years old with an average age of 37. There were 262 females and 109 males. Ethnicity included Caucasians (68%), Hispanic (18%) and Asian (10%), and African Americans (6%).

Physical and surgical deformities in these patients included asymmetric lateral crura remnants, displaced tip grafts, tip ptosis, polybeak deformity, asymmetric domes, hanging columella, dislocated caudal septum, asymmetricbossae, excessive soft tissue/vestibular mucosa or redundant membranous septum, and medial crural flare.

Correct diagnoses of the etiology of nasal tip anomalies sets the stage for an algorithm for surgical repair which best matches the surgical procedure or maneuver needed to properly correct the underlying deformity. Intraoperative surgical findings correlated well with preoperative assessments of deformities based on this algorithm.

The Taylor Saddle Effacement (TSE): A New Technique for Correction of the Saddle Nose Deformity
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Saddle nose deformities are commonly encountered by the facial plastic surgeon. Despite this, numerous techniques of reconstruction have been attempted with variable results. The author herein describes a novel technique, the Taylor Saddle Effacement (TSE), for correction of the saddle nose deformity using autogenous grafts from the lower lateral cartilages. A total of 6 patients have been included in this prospective study. Five of the 6 patients had previous septal surgery performed while the remaining patient had multiple nasal fractures. All patients had preoperative photographs taken in combination with completion of a rhinoplasty outcomes questionnaire. This questionnaire included a Visual Analog Scale (VAS) of nasal breathing as well as a scientifically validated assessment of nasal function and esthetics. Subjective assessment of nasal airflow was measured bilaterally using the VAS with and without manipulation of the nasal valves. An open approach was used in all cases. A vertical dome division was carried out on both lower lateral cartilages and the resected cartilage was “sandwiched” and used as a dorsal onlay graft. Grafts were secured using sutures and fibrin glue. The angle of the dome division was dependant on the need for increased tip rotation. No other methods of dorsal augmentation were used. All patients had postoperative photos taken at 6 months and once again completed a rhinoplasty outcomes questionnaire. All were blinded with regards to their preoperative assessments. Results-All 6 patients had improvement of their global nasal airflow on the VAS. The mean preoperative score was 6.0 compared to our postoperative mean of 8.8 out of a possible 10. On bilateral assessment of nasal airflow using the VAS, one patient had a unilateral decreased score of 1 on our 10 point scale. At six months, all patients felt that their nasal appearance had improved. All reported improved confidence in their nasal appearance as well. All six patients believed their friends and loved ones had an improved perception of their nasal appearance. No patients reported a change in the way their nasal appearance affected their professional or social activities. Conclusion-The Taylor Saddle Effacement is a simple and reliable technique for correction of the saddle nose deformity. This prospective study has demonstrated improvement both in nasal function and esthetics when it is employed. The author has found it useful in cases where no septal cartilage is available for grafting and the saddle deformity is mild to moderate in severity.

Endoscopic Repair of Nasal Septal Perforation Using a Low-Tension Posteriorty-Based Septal Mucosal Flap.
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Introduction: Repair of the large nasal septal perforation continues to technically challenge rhinoplasty surgeons due to high rates of recurrence using current techniques. As endoscopic nasal surgery training continues to improve in residency training, novel methods of septal perforation repair will be developed. In this article we describe an endoscopic low-tension method of septal perforation repair using a posteriorly-based septal mucosal flap based on the sphenopalatine vascular bundle. Methods: Three cases of nasal septal perforations closed using posteriorly-
Based septal mucosal flaps were retrospectively reviewed. Intraoperative and postoperative photographs were reviewed. Results: Three patients treated with posteriorly-based septal mucosal flaps were identified. The median follow up was six months. The repaired septal perforations were 2 to 3 centimeters in largest diameter. One patient had documented cocaine use in the past. One patient had a history of lupus and a failed attempt at traditional closure of septal perforation, and developed postoperative epistaxis requiring nasal packing. All repairs remained intact within the follow-up period. No major complications were encountered. Conclusions: Endoscopic nasal septal perforation repair using a posteriorly-based septal mucosal flap based on the sphenopalatine vascular bundle is a viable alternative to traditional repair of large primary perforations, or revision for failed symptomatic septal perforations.

The Effects of Different Degrees of Crushing on the Viability of Cultured Human Nasal Septum Chondrocytes
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Objective: To investigate the effects of different degrees of crushing on viability of human nasal septum chondrocytes in adherent cell cultures.
Study Design: Prospective experimental study
Setting: Baskent University, Departments of Otorhinolaryngology and Medical Genetics
Material and Method: The specimens were cartilage grafts harvested from the nasal septa of 15 patients who underwent submucosal resection for septal deviation. Five equal-sized cartilage pieces from each patient were prepared as follows: cartilage left intact, slightly crushed, moderately crushed, significantly crushed, and severely crushed. Each preparation was transferred to the laboratory for cell culture. The chondrocytes in each sample were isolated for trypsin blue dye exclusion test, and numbers of viable and nonviable cells were counted at 1, 2, 3 and 10 days after culturing. For each time point, the average chondrocyte viability rate for each of the five preparation types (groups with different degrees of crushing) was calculated. Intra- and intergroup comparisons were made.
Results: Slightly crushed cartilage grafts showed high chondrocyte viability rates in the short term, and retained these high values over the long term at levels comparable to intact cartilages. As crushing intensity increased, both the short and long term viability ratios gradually decreased. The day-1 viability rates for the intact, slightly crushed, moderately crushed, significantly crushed, and severely crushed cartilage preparations were 96%, 92%, 82%, 72%, and 54%, respectively. The corresponding rates on day 10 were 93%, 90%, 84%, 75% and 68%, respectively.
Conclusion: The viability of crushed cartilage depends on the degree of crushing sustained. Cartilage grafts that are slightly or moderately crushed show good chondrocyte viability and proliferation at levels comparable to intact cartilage. Slightly crushed or moderately crushed cartilage graft material is excellent for fashioning softer nasal contours, filling defects, and effectively concealing dorsal irregularities. However, significant or severe crushing greatly reduces chondrocyte viability and proliferation, and may result in unpredictable degrees of graft-volume loss.

Alar Rim Grafting in Septorhinoplasty: Indications, Technique and Outcome
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Objective: To determine the potential indications for placement of cartilaginous alar rim grafts in primary and revision septorhinoplasty.
Design: Retrospective chart analysis of all patients undergoing septorhinoplasty between March 2003 and June 2004 in a private cosmetic surgery center and a tertiary teaching hospital. Patients who received alar rim grafts were identified. The indications for placement of the alar rim grafts were deduced from their preoperative evaluation and intraoperative assessment as noted in their comprehensive operative note. Pre- and post operative digital photographs as well as post-operative records were analyzed for alar contour, pertinent patient complaints and complications.
Result: During the 15-month study period, 120 patients underwent septorhinoplasty by the senior author. Of these patients, 23 (19%) patients received alar rim grafts. The most frequent indication for placement of alar rim grafts was cephalic malposition of the lower lateral cartilage with inadequate alar support, 9(39%) Other indications included: alar flare 5(22%), dynamic alar margin collapse 4(17%), alar margin asymmetry 4(17%) and relative excessive columellar show 1(4%). At 6 months follow-up there were no graft displacements or extrusion. No patient complained of a stiff alar rim.
Conclusion: The alar rim graft is infrequently used in septorhinoplasty. It is a simple and versatile approach to providing additional support to the external nasal valve and for improving nasal base disharmony.

Nasal Tip Ptosis: A Dynamic Model to Prevent Long Term Drooping
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Introduction: The drooping nose and its permanent correction have been the subject of constant challenge in nasal plastic surgery. Other than an aged and unfavorable appearance which is accentuated on animation, Nasal tip ptosis adversely affects nasal airway. The lip-nose angle depends on many static and dynamic factors. We emphasized the role of augmentation based on dynamic models as an important factor other than conventional static techniques.
Methods: Five hundred fifty cases of tip ptosis underwent the ancillary augmentation technique using our technique. Nasal augmentation was achieved by special cartilage graft technique during tip surgery. The pocket was so prepared to allow a dynamic action of graft, combating dynamic forces permanently, and avoiding buckling according to the Euler Equation.
Results: Multiple aesthetic parameters including the lip-nose angle in static and dynamic states were assessed before and after surgery. There was significant improvement in dynamic and static states postoperatively. Results were more pronounced in severe cases.
Conclusion: To correct the drooping nose, a method of correction utilizing special dynamic design could correct tip ptosis in long term. This method works even in high ptosis states. We will present our experience, demonstrating details of the operative technique.
Shortening of the Intermediate Crura: A Targeted Technique in Treating Tip Overprojection

J.B. Wise, MD; S.S. Becker, MD; A.M. Sparano, MD; D.B. Becker, MD, Philadelphia, PA

Problem Addressed: While vertical dome division in rhinoplasty is a traditional option for the treatment of nasal tip overprojection, significant patient factors, such as thin skin and the risk of bossae formation, led the senior author to seek an alternative approach, specifically shortening of the intermediate crura.

Methods and Measures: A method of deprojection is described that avoids division of the lower lateral cartilages at the domes. Nine patients with nasal tip overprojection underwent this procedure with follow-up ranging from 2 months to 3 years (mean, 1.2 years). The senior author performed this technique via an external rhinoplasty approach. With the tip cartilages exposed, dissection was undertaken between the medial and intermediate crura. Division of the cartilages was undertaken bilaterally at the junction between the medial and intermediate crura. The vestibular skin was dissected off of the intermediate crura, and the intermediate crura was overlapped with the medial crura. Suture reapproximation was undertaken with a 5-0 PDS suture. A columellar strut was typically placed. Care was taken to maintain the orientation of the intermediate crus in an effort to maintain the double break.

Results: Eight patients are presented with pre and post-operative photographs. Video segments outlining surgical technique will be shown during oral presentation.

Conclusions: As demonstrated in this report, the intermediate crura can be shortened to achieve deprojection. The nasolabial angle is maintained, so there is no counter-rotation. In addition, the length of the intermediate crura is reduced, but the double-break preserved. In the group of patients with thin skin and tip overprojection secondary to overdevelopment of the lower lateral cartilages, shortening the intermediate crura via a vis vertical dome division is preferred in order to preserve the natural curvature of the dome and decrease the risk of bossae formation.

Clinical Significance of Study: The described technique is a novel approach for the correction of tip overprojection, and offers the rhinoplasty surgeon an alternative to vertical dome division in selected patients.

Non-Surgical Rhinoplasty Using Calcium Hydroxylapatite (Radiesse™) For Soft Tissue Augmentation

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Objectives: Traditional treatment options for nasal contouring have historically involved invasive surgical procedures requiring extended patient recovery time. This study sought to evaluate the safety and efficacy of Radiesse (calcium hydroxyapatite), a new biocompatible and durable injectable soft tissue augmentation material for nonsurgical rhinoplasty, in particular, for camouflage of nasal deformities.

Methods: The study was performed in a private practice setting, from 1/1/05 to 6/15/05. Thirty-five patients (10 male, 25 female) were selected for inclusion in the study. These patients exhibited a range of nasal deformities, including the following: dorsal humps, dorsal deviation, dorsal asymmetry, nasal tip droop, post skin lesion excision scarring and post surgical cartilage collapse (giving a “pinched” appearance to the lateral alar area of the nose). Prior to performing the procedure, the patient and the physician discussed areas of concern for camouflage and injected calcium hydroxyapatite (CaHA) accordingly. Following administration of topical anesthesia, study participants typically received injections of CaHA ranging from 0.2 mL to 0.8 mL in the subdermal plane of the soft-tissue in precise locations, usually along the dorsal aspect of the nose. Follow-up of study results was accomplished between Results: Injection of CaHA proved to be an effective means of camouflaging nasal deformities through nonsurgical means. Nasal defects were filled with CaHA, sharp angles along the nasal bridge were smoothed and the angle of the nasal tip was altered to provide the desired aesthetic outcomes. All patients agreed to informed consent participation and completed a self-satisfaction survey. Of the 35 patients, 33 (94.3%) rated their satisfaction level as excellent or better. Time of follow-up of study was two weeks post injection. Pre-treatment and post-treatment photos were obtained for each study participant. Temporary adverse effects in 26 (75%) of the patients in the study included erythema, bruising and mild swelling. In all but two of the patients, these adverse effects were of short duration and resolved within 3 to 10 days post-treatment. Two patients experienced persistent erythema for several months that is resolving with Intense Pulsed Light treatment.

Conclusions: The researcher found CaHA to be a safe, well-tolerated and effective compound for use in correcting nasal contour defects. Further, this technique provides an attractive nonsurgical alternative to typical surgical rhinoplasty methods. Recovery time is minimal and treatment affords immediate correction of nasal irregularities. The investigator postulates that time of correction will last more than two years in most patients. This procedure represents a novel approach to correction of nasal contour irregularities, characterized by virtual absence of scarring, pain, swelling, and bruising.

An Adjustable, Butterfly Design, Titanium-ePTFE Implant for Nasal Valve Dysfunction

C.G. Hurbis, MD, Coos Bay, OR

Objective: Design of a simple, adjustable, biocompatible nasal implant, which consistently corrects nasal valve dysfunction.

Study: Nasal valve dysfunction is an increasingly common condition affecting the aging adult as well as some patients having prior rhinoplasty surgery. A number of techniques are available for correcting the nasal valve including batten grafts, suture suspension techniques as well as the cartilage “butterfly” spanning graft. The butterfly graft is probably the most reliable surgical correction over the long term, but perhaps the most technically difficult. We are presenting data on an adjustable, titanium–ePTFE implant designed as a spanning butterfly. This device offers predictable valvular correction with simple implantation. It can be adjusted in vivo, achieving a balance between airway patency and acceptable cosmesis.

Results: Rhinomanometry studies, photo evidence and patient questionnaires show that a significant improvement in the nasal airway can consistently be achieved at the level of the nasal valve with this technique.

Conclusions: The titanium–ePTFE alar spanning implant provides a consistent and adjustable correction of the dysfunctional nasal valve.
The Endonasal Open Book Approach to the Dorsum Nasal Septum: A Tool for Revision Septorhinoplasty
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Functional and aesthetic rhinoplasty following previous septal surgery can be a challenging endeavor if either bilateral flaps were previously dissected or submucous resection was performed in the past. In this setting, correction of either vertical or horizontal curvilinear dorsal deformities can be achieved using a variety of techniques, including asymmetric spreader grafts, open septoplasty techniques, camouflag grafts, cartilage suturing or cartilage scoring. All of these options have utility for correcting external deformities, however, if the underlying septum is not straightened, a continued functional deficit from nasal valve obstruction will exist. Spreader grafting will open an acute nasal valve angle, but may exacerbate an external curvature, requiring either contralateral spreader or camouflage grafts. Only septoplasty techniques that correct the underlying septal deformity can provide simultaneous functional and cosmetic correction.

Endonasal access to the dorsum using a septoplasty approach can be difficult from limited access and carries the risk of septal perforation or inadequate correction. Open septoplasty techniques can eliminate this through a dorsal approach with separation of the upper lateral cartilages (ULC) and mucoperichondrial flap elevation towards the floor of the nose. Often, the most dorsal septal segment has not been disturbed in previous surgery. However, unless concurrent tip work is being performed, dissection of the lower lateral cartilages, as well as columellar and marginal incisions must be done soley to gain exposure.

Therefore, we have developed an endonasal approach to the nasal dorsum that achieves the same access for cartilage remodeling without requiring additional incisions in the nasal vestibule or external nose. A partial transfixion incision is made on the both sides with mucoperichondrial dissection of the upper 1 cm on the concave side of the septum. Bilateral intercartilaginous incisions are done and skeletonization is performed over the cartilaginous vault. An 11 blade is then used to submucosally separate the ULC on the concave side. Following this, the bipedicled ULC can be displaced inferolaterally, giving excellent exposure of the dorsal cartilaginous strut for septoplasty correction (see figure 1). If the assistant holds the speculum and retracts the ULC, bimanual access can be achieved (see figure 2). A similar procedure can be done on the contralateral side if suturing or additional maneuvers are required. Following closure of incisions, the nose is taped and packed in standard fashion. We have used this technique on 3 patients thus far with good functional and cosmetic results.

Rapid Recovery Rhinoplasty
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The importance of the speed of recovery following aesthetic surgery cannot be overstated. The combination of a rapid recovery with an exceptional outcome ensures the highest level of patient satisfaction. This study assesses a rhinoplasty technique designed to minimize the duration of postoperative sequelae and allows patients to return to their normal routines as soon as possible. We hypothesize that surgical dissection superficial to the nasal superficial musculoaponeurotic system (SMAS) and trauma to nasal sidewall vasculature are the main etiologies of prolonged post-operative swelling and bruising following rhinoplasty. Using anatomic principles and meticulous surgical dissection, a rhinoplasty technique which minimizes recovery time has been developed. With this approach, the great majority of bruising and swelling are resolved within eight days of surgery allowing patients to return to their normal routines soon after surgery.

Anterior Septal Grafts for Secondary Tip Projection - A Preliminary Report
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One of the greatest challenges in rhinoplasty is to restore nasal tip projection. In primary rhinoplasty, overzealous surgical resection of the lower lateral cartilages, septum and suspensory ligaments weaken the cartilaginous vault of the nasal lobule, which is unable to resist the force of contraction of the surgical envelope during postoperative healing and results in collapse of the nasal lobule and loss of nasal tip projection. Recent advances in rhinoplasty have been directed toward maintaining and sometimes fortifying the nasal tip and these include minimal excision and reshaping of the lower lateral cartilages, employment of open rhinoplasty approach to minimize surgical weakening of suspensory ligaments and placement of columellar struts to strengthen the central limb on the nasal tripod. Current techniques to reconstruct nasal tip projection have employed columellar and alar struts, battens, and onlay grafts to the dome region, dorsum and lateral crura which all have unpredictable results because they increase compressive forces loading the already weakened nasal tip cartilages. These forces can also result in collapse of the internal nasal valve. Furthermore, any “visible” graft (ie. has direct contact with overlying skin) that causes sufficient pressure to improve tip projection or create visible definition, over the long term, will result in soft tissue atrophy of the subcutaneous tissues of the tip. Once atrophy occurs and the graft applies pressure to the dermis, if resorption of the graft hasn’t already occurred, the dermis becomes stiff and noncompliant, changes which are irreversible and uncorrectable.

An autologous cartilage “push” graft harvested from the nasal septum has been developed and may be an effective way of increasing tip projection in selected cases. While the nasal tip cartilages are retracted anteriorly in a prestressed state, this midline graft is positioned between the anterior nasal septum and the sutured domes of the lower lateral cartilages. It is a nonvisible graft which stents or pushes forward the weakened nasal cartilaginous vault without contacting or distorting the overlying surgical envelope. It fortifies and prevents the collapse of the weakened cartilaginous vault against postoperative wound contraction forces. Lastly, it secures the position of the nasal tip at the midline as well as stabilizes the tip complex in relation to the osseocartilaginous vault.

Presented is a preliminary report consisting of a pre- and postoperative photometric analysis of eight patients undergoing primary or revisional rhinoplasty to correct iatrogenic, involutional or traumatic nasal deformities including loss of tip projection. The range of improvement in nasal tip projection ranged from 1.35% to 18.5%.
**Non-surgical Nasal Tip Rotation with BOTOX®**

J. J. Kempliner, MD, Chicago, IL

**Introduction:** We have found an effective and non-surgical method for reducing dynamic nasal tip ptosis, excessive upper lip shortening, and the appearance of a mid-philtrum crease using Botulinum Toxin A (BOTOX®, Allergan Co. Irvine Calif).

Surgical methods for correction of these defects, while effective, require downtime and a significant healing period. A non-surgical alternative treatment using BOTOX is an attractive option for those who can not afford the time or expense of surgery.

A dependant, elongated nasal tip, frequently paired with a short curling upper lip is often exaggerated with smiling. The muscular forces affecting this area are the paired depressor septi nasi (DSN) muscles and the levator labii superioris alaeque nasi (LLSAN) muscles during animation and at rest.

The tip is drawn caudally by the contraction of the paired DSN muscles resulting in tip ptosis that is exaggerated with animation. This muscle originates on the medial crura to interdigitate with fibers from the orbicularis oris. Concurrently, the lip and alar insertion is elevated by the actions of the LLSAN. This muscle originates on the frontal process of the maxilla and inserts on the skin of the ala and upper lip. Acting together, the paired DNS and LLSAN muscles cause the nasal tip to be drawn downward, and the alar base and lateral lip to be pulled cephalad. The nostrils are directed in a downward direction, and a snarl like appearance can result. Secondary effects include a mid-philtrum crease and excessive gummy show.

**Methods:** By placing 5 units of Botox into each DSN and 3 units into each LLSAN muscle the excessive action of these muscles was attenuated at a 2 week follow-up.

**Results:** The nasolabial angle opened up from 110 to 115 degrees at rest. With both a maximal and relaxed smile effort, the nasal tip is less ptotic, the alar insertion is in a more neutral position, there is lengthening of the upper lip with decrease mid-philtrum creasing and a less snarled appearance. Patient satisfaction was high with no side effects, specifically no oral incompetence or speech difficulties.

**Conclusion:** We have found BOTOX to be an effective and simple method for temporarily treating the ptotic nasal tip.
POSTER PRESENTATIONS

Realistic Expectations: To Morph or Not to Morph?
A. Agarwal, MD; E. Gracely, MA, PhD; W. Silver, MD
Objective: The role of computer imaging in facial plastic surgery as a valuable communication tool has been well established. Patient satisfaction with cosmetic surgery after computer imaging has been documented to be higher than in those patients who did not receive imaging. However, patients routinely ask if their morphed image conveys a realistic expectation of the postsurgical outcome. The objective of this study is to determine if the computer generated image in patients seeking rhinoplasty is an accurate predictor of the postoperative result.

Design: This is a retrospective study in which preoperative, computer morphed, and one year postoperative images of one surgeon’s 25 consecutive rhinoplasty patients will be analyzed by 12 anonymous skilled observers (facial plastic surgeons). A face forward and right lateral view will be included for each patient. Their will be no identifying patient factors, and the observers will be blinded as to the identity of the operating surgeon. For each patient, a survey will accompany the photographs. The survey will assess whether the morphed image represents an aesthetically pleasing goal and the degree of similarity between the morphed image and the actual postoperative result.

Setting: All patients were imaged and subsequently operated on by the senior surgeon (W.E.S.) in a private practice setting.

Patients: The images of 25 consecutive rhinoplasty patients who have one year postoperative photographs available will be utilized in order to eliminate any selection bias.

Main Outcome Measure: The results of the surveys will be tabulated and analyzed to determine if the computer generated image conveys a realistic expectation of the postoperative result.

Results and Conclusions: As expected, facial plastic surgeons have a varied impression of what is considered an aesthetically ideal rhinoplasty goal and/or postoperative result. After completing data analysis from the 12 surveys, we hope to determine if computer imaging conveys realistic expectations to the patient. In addition, we seek to determine whether certain patient related factors (i.e. wide nose, ethnicity) make computer morphing more difficult to use as an alternative.

The Role of Retrograde Signal Peptides in Facial Nerve Regeneration
J.M. Ahn, MD; E. Gurnstein, MD; M. Shrime, MD; G. Weiss, MD; H. Lin, MD; R. Ambron, MD
Objectives: To identify the presence of a retrogradely transported protein kinase (Elk1 kinase) within the injured rat facial nerve.

Methods: 6 male Sprague-Dawley rats were served as their own control. The buccal branch of the facial nerve was identified on both sides. A distal injury and a proximal ligature were made on the experimental side, while a proximal ligature alone was made on the control side. The nerves were harvested three hours after injury. Radiolabeled Elk1 kinase was resolved on SDS-PAGE gels.

Results: Elk1 kinase activity was greatest at the proximal ligature site on the experimental side in 100% of facial nerve samples. Presence of Elk1 kinase was also noted at the ligature site on the control side, at significantly decreased levels.

Conclusions: Elk1 kinase is retrogradely transported from the site of injury toward the neuronal cell body in the rat facial nerve.

Successful Non-Microvascular Nasal Tip Reimplantation after Traumatic Avulsion
G. Arzt, MD; B. Kung, MD; E. Pribitkin, MD
Abstract: Successful soft tissue re-implantation is rarely described in the literature, particularly from contaminated wounds. We describe the first case of non-microvascular nasal tip reimplantation with near complete survival and review the factors influencing the outcomes of non-microvascular tissue reimplantations.

Methods: Case report and review of the literature
Results: A 37 year old male presented with traumatic avulsion of his nasal tip from a human bite. The avulsed tissue was 2cm in size, included lower lateral cartilage and involved multiple subunits of the nose. (Fig. 1) Reimplantation was performed 8 hours after the traumatic incident. Leeches were applied to the reimplanted tissue immediately after surgery. 2 weeks after surgery 80% survival was seen. The residual 20% defect was reconstructed with a composite concha cartilage graft.

Conclusions: This case presents evidence that non-microvascular reimplantation of full thickness composite tissue can result in survival with acceptable clinical outcomes. In this patient’s case, tissue survival obviated forehead flap reconstruction and its associated morbidity. Future studies to determine the effects of time, size and leech therapy on the survival of reimplanted tissues are needed.

Limited Direct Submentoplasty: Skin Excision Techniques Review of the Old and a Presentation of a New Approach
J. Bitner, MD; O. Friedman, MD; T. Cook, MD
Management of excess sagging skin and subcutaneous fat of the submental region is often the primary concern and reason for patients seeking advice. The ideal cervicofacial angle approaches 90 degrees. Age and excess fat generally make this a displeasing obtuse angle. This problem is frequently addressed, particularly in women, with a rhytidectomy involving skin advancement in a superioposterior direction and excision of the excess from the preauricular incision site. This method generally allows sufficient exposure for muscular (digastric, platysma, hyoid muscle groups) alterations, removal of fat (a stab incision in the submentum is often needed) and anything else deemed appropriate. However, there remains a subset of the population with in whom a preauricular approach is unacceptable or incompletely corrects the deformity. These patients are often men who are displeased with the submental area, but do not want a face-lift or in whom their hairstyle makes preauricular skin excision difficult to disguise. Men are particularly good candidates because the midline submental scars that result are more easily hidden in the hair-bearing submental skin.

Ehler, Cronin and others have described this as the “turkey gobbler” deformity. Various classification schemes have been proposed. Matarasso et al. based theirs on the degree on underlying platysmal banding and skin laxity. Kamer et al. categorized his patients by the distance (mentum to sternum)
over which the skin deformity sags. Dedo described a classification based on a level or depth of anatomic involvement (skin, muscle and bone).

There are remarkably few papers that address the direct approach to the sagging submentum. The purpose of this paper is to review past descriptions of techniques of excess skin removal during limited direct submentoplasty and to present a novel approach. Although most of these approaches also involve treatment of the underlying musculature (hyoid associated and platysma) and fat (either direct excision or liposuction), we will focus primarily on skin excision techniques. Given the marked variety and degree of deformation with which these patients present, it is important to have a large arsenal of approaches to conquer this problem.

Elliptical Excision. The first reported address of the submental area involving skin excision was in 1932 by Malinac and by Johnson in 1955. Adamson similarly described the excision of an ellipse of skin, performed at or below the level of the hyoid in a transverse fashion. This was advocated in conjunction with a classic rhytidectomy and included direct lipectomy and platysmal imbrication. One criticism of the Adamson description is that the excess skin is in the lateral direction and there is actually a deficiency of skin in the vertical direction. Adamson himself stated that contraction bands may occur when too much skin is excised. (Cronin)

Lazy H-shaped incision. Originally described by Morel-Fatio in 1964, this approach involves incision patterns resembling an H lying on its side. The superiormost incision is positioned in the submental crease or just inferior to it. The vertical portion is on the midline and the inferior portion varies according to the deformity but generally sits low in the neck. The lateral limbs of the flap are elevated and advanced towards the midline. Excess skin is removed and the vertical portion is reaproximated and closed directly or broken up with a Z-plasty. During flap elevation, access to the submental deep structures is adequate to perform any proposed manipulation.

T-Z Plasty. Cronin and Biggs initially described the T-Z plasty in 1970. It is sited to be particularly useful and applicable in men with the so-called “turkey gobbler” deformity. The first incision is planned immediately below the mentum in the submental crease and is elliptical in shape. The midpoint of the ellipse is connected at its midpoint inferiorly to a vertical incision on the midline. From this midline vertical incision, skin is resected laterally. Cronin also describes resection of submental fat, particularly that overlying the myelohyoid between the anterior bellies of the digastric muscles. Snug imbrication of the platysma is advocated down to the level of the hyoid. Closure is T-like, except that the vertical incision is broken up by a Z-plasty with the limbs of the Z longer than 2 cm each. This closure produces a dog-ear inferiorly at the level of the hyoid, which is corrected by another horizontally oriented elliptical incision joined at the midpoint by the vertical component. This method of skin excision is similar to that used by Morel-Fatio in the lazy H, except that the horizontal components are elliptical in nature. The closure is recommended to be “quite snug” or else insufficient tissue has been excised.

W-Plasty- the Tiger Bite Closure. Further refinement in techniques of submental skin excision led Ehler and others to propose a submental W-plasty in 1990. The patient is examined and the lateral extent of the excess skin laxity is marked. Two transverse markings are made along the submental crease and at the level of the suprahyoid crease. A vertically oriented W-plasty is marked with multiple arms measuring no greater than 1 cm each on one side of the midline. Undermining is carried laterally and any excessive submental fat is removed. The vertical strip of excess skin that had been marked is excised, preserving the W-plasty configuration. When complete and ready for closure, it may appear as though a tiger had effectively removed the deformity in one quick bite. The W-plasty is then closed, using subcutaneous and skin sutures. Occasionally, dog-ears are present in the horizontal portions. These may be excised by removing triangular shaped portions of skin at the apex of the dog-ear. The W-plasty is most useful by breaking up the vertically oriented portion of the scar, leading to a much less apparent midline scar that is well disguised in the shadowed portion of the male submentum.

Vertically Oriented Elliptical Excisions- The Diving Ichtus Miller and others in 1996 first described a vertically oriented excision of an ellipse of skin. The apices of the ellipse are at the level of the submental crease superiorly and the inferior apex often below the level of the hyoid depending on the severity of the deformity, but usually above the notch of the thyroid cartilage. The elliptical incision is carried down to the platysma, removing excess subcutaneous fat and undermining laterally in a supraplatysmal plane for about 6 cm. Miller also advocates plication of the platysma anteriorly and does not generally remove fat from the submental triangle in the subplatysma plane.

In 2005 Miller further added to his 1996 description with a horizontally oriented incision at the level of the submental crease. An acutely angled triangular skin strip is excised between the horizontal incision and the superior portion of the ellipse, creating a notch. These notched portions will close at the midsection of the horizontal incision by. When the skin excisions are complete it closely resembles a vertically oriented fish, or the diving ichthus (Greek for fish). The ellipse is closed temporarily with staples creating a midline vertical incision. This incision is broken up with a Z-plasty. If dog-ears remain at the inferior most portion of the vertical incision, they can be excised with a small horizontally oriented ellipse.

Some additional recommendations include: 1) the lateral arms of the Z-plasty should be from 3-3.5 cm in length 2) the transverse portion of the Z-plasty scar should lie in the suprahyoid crease and 3) if the inferior portion of the vertically oriented ellipse is at or above the suprahyoid crease, then a Z-plasty closure need not be used. He also recommends that direct platysmal plication be performed on the medial margins of the muscle effectively decreasing tension at the skin closure site. Bilateral Hemi-Ellipse- Opposed Naval Flags Hamilton described a limited submental lipectomy with skin excision in 1992. This involved first identifying the defect in the submental region and marking out a vertically oriented ellipse. An incision is placed down the midline vertically connecting the apices of the ellipse. An arc of skin and subcutaneous fat is removed from one side of the superior portion of the ellipse and the same is done on the opposite side inferiorly. This creates two naval flag shaped portions of excised tissue that are oppositely oriented. The remaining portion of the ellipse, with its remnant flaps, is widely undermined in a supraplatysmal plane. Platysmal plication and any appropriate fat removal is performed. The
horizontally oriented incision lines are brought together and sutured closed. This effectively approximates the remaining incisions to be closed. The remaining scar is similar in appearance to a Z-plasty closure.

The Grecian Urn. This novel approach has never been described in the literature, although it has been successfully employed. The patient in which it may prove useful is similar to that previously described. There is a vertically oriented ellipse of skin that is marked preoperatively with the patient in the upright position. The superior apex is positioned at the submental crease and the inferior portion varies, but may extend to the thyroid notch or below. Lines are drawn horizontally at the ellipse apices. Triangular sections are created, connecting arc of the ellipse with the lateral extent of the horizontal lines bilaterally. The final result appears very similar to an ancient Grecian Urn. This creates a notched portion of the lateral wall of the ellipse that when closed will join the horizontal incision in a T fashion. The body of the ellipse serves to excise excess skin in a horizontal plane and the triangular skin excision shorten effectively shortens the vertical scar and removes excess skin vertically. Once the incisions are created, platysmal plication and any proposed direct lipectomy can be performed.

General Comments: These procedures are performed almost universally on an outpatient basis and can often be done with local anesthesia and IV sedation only. In general, it is recommended as the only procedure done on the neck, but many of the authors advocated use in conjunction with a neck and facelift procedure. The authors of this article, however, advocate the procedure alone or months to years after a classical deep plane rhytidectomy.

It is of vital importance that all preoperative markings be made prior to local infiltration and with the patient in the upright position. Once the patient is recumbent, the abnormal anatomy is difficult to appropriately appreciate. A thorough preoperative discussion is also important, informing the patient the reality of external, although generally well disguised, scarring that is expected. In this event, hypertrophic or keloid scars would be difficult to hide.

Conclusion: A thorough knowledge of skin excision techniques involving the submental area is invaluable in the practice of facial plastic surgery. This enables the surgeon to appropriately plan surgical methods that will provide the best aesthetic results to the submental area when performing limited submentoplasty with skin excision. The wide anatomic variability of the patients presenting as candidates for limited submentoplasty requires numerous approaches. With an understanding of methods as part of a surgeon’s arsenal the needs of a significant group of patient can more adequately be met.

Treatment with Botulinum Toxin Improves Cosmetic Appearance of Scars in Facial Wound Healing: A Randomized, Prospective Study

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Objective: Upon the completion of this presentation, the participant will be able to discuss findings related to the use botulinum toxin to improve the appearance of forehead scars.

Introduction: Continual exploration into strategies and techniques that improve upon the wound healing process and enhance the appearance of facial scars is necessary. It is known that excess mechanical tension at a wounds periphery increases the production of extra cellular matrix components, thus contributing to the development of an unsightly scar. Design: Prospective, randomized, blinded, placebo controlled study.

Methods: Patients with traumatic or surgical wounds limited to the forehead were recruited and randomized. The frontalis muscle, adjacent to the wound, was injected with normal saline or botulinum toxin. Photographic documentation was completed at the time of surgery and 6 months following the initial treatment. Assessments of photographs were completed in a blinded fashion by two experienced facial plastic surgeons. A Visual Analog Scale (VAS, 0-worst, 10-best) was used as the primary outcome measure.

Results: 34 patients were evaluated upon the completion of this study (18 placebo and 16 experimental). The average VAS of the evaluators was used to quantify the cosmetic appearance of the scars. At the conclusion of the study the cosmetic result of the healed wounds was rated more favorable for the botulinum toxin treated scars than the control scars (median, 8.9 vs. 7.1; Wilcoxon rank sum test, p=0.002).

Conclusions: Immobilizing a healing forehead wound by temporarily paralyzing the underlying musculature with botulinum toxin enhances the appearance of the scar.

Modeling Identifies Predictive Variables of Wound Complications Following Laryngectomy Surgery

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Background: Identifying discrete factors that predict wound complications is difficult given limited retrospective and prospective literature and widespread clinical debate. This retrospective study (NIH CAM, SCOR, P50-AT00428) aims to identify independent prognostic factors for wound healing complications in a post-operative laryngectomy sample.

Methods: Charts of 113 consecutive patients with partial or total laryngectomy were abstracted to obtain wound complication data. Wound healing complication was defined as the occurrence of at least one of the following: fistula, abscess, cellulitis, or skin necrosis within eight weeks post-operatively. Pre-operative variables collected included prior radiation, albumin, hemoglobin (Hgb), white blood cell count (WBC), and tobacco use. A multivariate logistic regression model was developed to identify independent prognostic factors.

Results: The overall wound complication rate in the sample was 28.3%. Albumin, Hgb, and WBC were significantly associated with complication rates. Albumin, Hgb, and WBC were each categorized into three intervals (Albumin: <3.45 (low), 3.46-4.25, > 4.25 (high); Hgb: <14.15 (low), 14.16-15.95, >15.95 (high); WBC: <5.35 (low), 5.36-10.35, >10.35 (high)). In the multivariate logistic regression model that included albumin, WBC, and Hgb, albumin and WBC remained independent prognostic factors following backward elimination. The odds of developing complications in the low and high albumin groups were 5.4-fold (95% CI: 1.2-24.2) and 2-fold (95%CI: 0.5-7.4) higher relative to the normal value. Similarly the odds of developing complications in the low and high WBC groups relative to the normal value were 6.9-fold (95%CI: 1.1-42.7) and 3-fold (95%CI: 1.0-9.2) higher.

Discussion: Successful wound healing is the critical endpoint in
reconstructive oncologic and aesthetic surgery. This model of predicting wound healing complications in post-laryngectomy patients illustrates potential identification of high-risk patients with routine pre-operative laboratory data. The model requires further testing in diverse clinical populations and provides impetus to design prospective intervention trials to enhance wound healing.

TREATMENT OF KELOIDS IN A TISSUE ENGINEERED FIBROBLAST-KERATINOCYTE CO-CULTURE SYSTEM USING PHOTODYNAMIC THERAPY

M. Chao, MD; C. Sun, MD; J. Ridgway, MD; A. Karamzadeh, MD; N. Pham, MD; B. Wong, MD

Introduction: As evidenced by the myriad treatment modalities currently being implemented, keloids are notoriously difficult to treat, as recurrence is common. In this study an organotypic tissue engineered co-culture system is utilized to study the effects of photodynamic therapy (PDT) on keloid-derived fibroblasts in vitro. The raft co-culture system imitates skin as it layers keratinocytes on a fibroblast and collagen base. In this study, 5-aminolevulonic acid (ALA), a photosensitizing drug generates reactive oxygen species when activated by light, which can produce various changes in growth and apoptosis in living tissues. Methods: Neonatal and keloid fibroblasts and neonatal keratinocytes were isolated from patients undergoing elective procedures, and were used to construct tissue engineered organotypic co-cultures (Raft model). After maturation, injury was produced in each raft by creating a partial thickness 4-mm incision with a punch biopsy. PDT involved incubation of each raft in ALA for 3 hours (500mg/mL), followed by laser irradiation (635nm) for a total of 2.5, 5.0 or 7.5 J/cm². Culture medium was changed every 2 days. At 0 hours, 24 hours and 14 days following PDT, digital photographs of the rafts were taken to measure wound contracture. Cell viability as determined using confocal microscopy and fluorescent imaging (live-dead assay, Molecular Probes, Eugene, OR) 24 hours and 14 days after PDT.

Results: Neonatal and keloid rafts demonstrated reduced wound contracture when treated with PDT. Compared to controls, PDT produced a dose dependent reduction in wound contracture in neonatal rafts (p<0.05). In keloid rafts a statistically significant decrease in wound contracture was observed at 5.0 and 7.5 J/cm² (p<0.05). However, the decreased wound contracture at 7.5 J/cm² was accompanied by and increase in cell death.

Conclusions: Photodynamic therapy modulates cutaneous wound healing in the raft model. At low PDT doses wound contracture is reduced while cell viability is preserved. As PDT is already utilized in treatment of other malignant and benign diseases including the aging face, the use of this modality as an adjuvant to conventional keloid surgery is feasible.

Radiesse Injectable Biofiller: Long Term Experience and Use in Combination with Restylane

D. Chrzanowski, MD; M. Majmundar, MD; M. Godin, MD

Objective: To report the long term results of 72 consecutive patients treated with Radiesse and 29 patients treated with a combination of Radiesse and Restylane injections and share recommendations concerning their use based on our experience. Methods: Seventy-two patients were treated with Radiesse soft tissue filler for facial fold and lip enhancement in a private office setting between October 2003 and December 2004. Twenty-nine of these patients also received Restylane injections for facial augmentation. Forty-four Radiesse patients and 14 Radiesse and Restylane patients completed questionnaires detailing their experience with the procedure, including postoperative sequelae, overall satisfaction and satisfaction at each site treated. Results: Radiesse: The mean overall satisfaction with Radiesse was 7.8 out of a possible 10 points. Mean immediate satisfaction score was 7.7 and long-lasting satisfaction score was 7.0. Patients were followed an average of 367 days (range 31-502 days). Sixty-eight percent of patients would recommend this procedure to others. Bruising, swelling, and discomfort were minor and resolved quickly. Two of the 72 patients (2.8%) reported persistent nodules in the lip area. Both required removal of a small amount of the material. Radiesse and Restylane combination: The mean overall satisfaction for combined injection was 8.1. Mean immediate satisfaction score was 8.4 and long-lasting score was 6.9. Seventy-nine percent of patients would recommend this procedure to others. Minor sequelae such as bruising and edema resolved quickly. Since using Restylane in place of Radiesse in the lip lines and lip substance, nodularity has not occurred in any patients.

Conclusions: Radiesse and Restylane are reliable, well-tolerated filler materials that create volume where desired in the face. Complications that occurred in these patients were infrequent and related to technique or site of application rather than antigenicity. With long-term experience and follow-up, complications in the lip area with Radiesse injection are now avoided with the use of Restylane in these areas. Patients receiving these biofillers were generally pleased with the results of the procedure. Patients in the combination group tended to have greater overall satisfaction scores and were more likely to recommend these procedures to others. The biocompatibility and short-term effects of Radiesse make it an attractive filler material. In addition, the use of Restylane in certain injection sites complements Radiesse in the desired rejuvenating effect.
Transcutaneous Lower Lid Blepharoplasty with Fat Excision: A Shift-Resisting Paradigm
R. Garcia, MD; E.G. McCollough, MD,
Objective: Transcutaneous Lower Lid Blepharoplasty is a safe and effective procedure to reanimate the lower eyelid. We plan to prove that in our experience there is no evidence of lower lid retraction, tear trough deformity, or the presence of an unacceptable scar. We also plan to define the tear trough deformity and compare its presence amongst patients younger than 30 and those above the age of 30 undergoing Transcutaneous lower lid blepharoplasty.
Study Design: 50 patients seen at the McCollough Plastic Surgery Clinic between the years of 2002-2003 who had undergone Transcutaneous lower lid blepharoplasty were included in our study. Comparing standard blepharoplasty digital photographic views, the patients were assessed with minimum follow up of 8mo for the presence of a tear trough deformity, lower lid retraction, or acceptability of the scar.
Setting: Private practice setting.
Patients: 50 patients seen between the years of 2002-2003 (45 females/5males) were followed up with minimum follow up of 8mo and maximum follow up of 2 years. Patients were selected on the basis of their having had this procedure performed within the last 3 years.
Intervention: There is no intervention in this study.
Main Outcome Measures: Effects of Transcutaneous lower lid blepharoplasty on the presence of unacceptable scarring, the presence of a tear trough deformity, and the presence of lower lid malposition.
Results: 50 patients were retrospectively reviewed and there was no evidence of the tear trough deformity, lower eyelid malposition, or an easily visible scar. Moreover, after defining the tear trough deformity and comparing older and younger patients, we have found that in those that had the deformity pre-operatively, this was not worsened with our technique.
Conclusions: Transcutaneous lower lid blepharoplasty is not only a safe and effective manner to rejuvenate the lower eyelid, but this was not worsened with our technique.

Muscular Activity and Rhytid Patterns in the Forehead: Classification and Implications for Botox Therapy
M. S. Godin, MD
While much has been written about the cosmetic uses of Botulinum Toxin Type A (Botox®), few descriptions of methods for individualizing this treatment exist. Since patients vary dramatically in the location and severity of facial rhytids, Botox treatment must be tailored to each individual’s anatomy. This study identifies 3 different types of forehead muscular activity patterns in a series of 179 consecutive patients who underwent treatment with Botox over a 4 month period. The patients averaged 46.9 years in age and 96.6% were female.
Criteria were developed to divide the patients into 3 groups based on rhytid location and observed muscular activity.
Eighty-two of the patients (46%) were judged to be corrugator dominant, 9 (5%) were procerus dominant and 88 (49%) exhibited a mixed pattern. The average interval between at least 2 prior treatments, any history of “touch-up” injections between treatments, and the number of injections required to treat the lateral orbital area were recorded for each patient and compared among the groups.
Patients received between zero and three injections per side in the lateral orbital area. The corrugator dominant group required significantly fewer lateral orbital injections (1.51 per side on average) than both the mixed group (2.13 injections) and the procerus dominant group (2.3 injections)
Twenty-three patients (12.8%) had a history of requesting a “touch-up” Botox injection at least one time in the past due to a more conservative effect than desired. They comprised 10.9% of the corrugator dominant group, 22.2% of the procerus dominant group, and 13.6% of the mixed pattern group.
The average duration between Botox® treatments for all patients in the study who had received at least 2 separate treatments prior to the study period was 153 days. The procerus...
dominant patients presented for treatment at intervals averaging 119 days and the corrugator dominant patients averaged 138 days between treatments. The mixed pattern patients presented least frequently, waiting an average of 193 days between treatments.

Specific patterns of forehead muscular activity and rhytid formation can be identified and patients classified according to them. These patterns have implications for Botox® therapy and are useful to the physician in tailoring a specific treatment to benefit the patient.

**Medical Indications for “Cosmetic” Procedures**

L. D. Grunebaum, MD; D. Reiter, MD

The spectrum of procedures in facial plastic surgery is most often divided between those considered “cosmetic” and those considered “reconstructive”. Certainly, payers make this distinction when considering reimbursement. Many facial plastic surgeons even define themselves as being cosmetic or reconstructive surgeons. In truth, the procedures within our armamentarium define themselves not by intent but by outcome. Knowledge, experience and expertise enable the facial plastic surgeon to apply sound judgment and proven technique to betterment of both form and function, for medical as well as social reasons.

Rhytidectomy techniques are equally effective against the changes of aging and the asymmetry of facial paralysis. Autograft transfer and allograft implantation can improve asymmetry from tumor, trauma, or congenital deformity just as they can amplify marginal physiologic facial structures into strikingly attractive ones. Resurfacing techniques can blend a graft or flap into surrounding skin as effectively as they can reduce wrinkling. Blepharoplasty can restore lateral or upward visual field deficits from dermatochalasia.

Clinical examples are offered and recommendations made for interfacing with the payer community to facilitate appropriate reimbursement.

**An Objective Comparison of 35 mm Film and Digital Images Using Modulation Transfer Function Analysis of Resolution**

G. S. Hamilton, MD; R. Greene, MD

Introduction: 35mm slide film is currently considered the benchmark for image quality in plastic surgery standardized photography. Many plastic surgeons have recently embraced digital imaging for its numerous workflow advantages. However, a rigorous, objective evaluation of image quality comparing 35mm slide film to digital has not yet been reported.

Objective: To objectively compare the resolution, color fidelity and noise/grain of images from 35mm and digital single lens reflex (SLR) cameras by analyzing the images made from standardized test charts.

Design: Photographs were taken with a 35mm and two digital SLR camera bodies through the same Canon EF 100 mm Macro f/2.8 lens. A PIMA/ISO 12233 standard resolution test chart and Gretag-Macbeth® ColorChecker chart were photographed with each camera under identical studio lighting. Fuji Provia 100F Color Slide film was used in a Canon EOS 1N. A Canon EOS 1Ds Mark II was used to capture RAW files at ISO 100 which were converted to TIFF format. The digital camera was manually white balanced and calibrated. The slide was digitized by scanning at 4,000 dpi. The scanned images were analyzed by measuring resolution, color fidelity and noise/grain using Imatest™ image analysis software.

Results: Pending

Conclusion: Pending

**Endoscopic Assisted Repair of Maxillofrontal Fractures**

V. T. Ho, MD; R. Odland, MD, PhD

Objectives: The purpose of this presentation is to describe our early experience with the use of an endoscopic assisted method for the repair of maxillofrontal fractures. At the conclusion of this presentation, the participants should be able to develop an appreciation for endoscopically assisted techniques in selected craniofacial trauma cases.

Study Design: Retrospective chart review of the authors' representative case series at a Level 1 trauma medical center.

Methods: Retrospective chart review of selected maxillofrontal trauma cases utilizing endoscopic assistance in their surgical treatment. Many types of fractures involve the suture between the medial maxilla and frontal bone, including naso-orbital-ethmoid fractures, medial maxilla fractures, and Le Fort fractures (I and II). Access to this region is limited and frequently requires the placement of potentially unsightly faciial incisions, including coronal, lower eyelid, and Lynch incisions. We successfully gained access to maxillofrontal fractures for open reduction and internal fixation (ORIF) with the help of endoscopic assistance, thus avoiding additional facial incisions and subsequent scarring. Other advantages include direct visualization of an illuminated and magnified surgical field. This technique was successfully employed in the repair of different types of maxillofrontal fractures.

Results: A total of five cases are presented using the endoscopic assistance technique. We present three naso-orbital-ethmoid and two medial maxillary cases that were successfully treated with this technique. Radiographic images and intraoperative video were used to demonstrate how this was performed. A sublabial incision was utilized in all cases for access to the fracture site. Rigid endoscopes were employed to assist with assessment and reduction of the fractures. This allowed ORIF of the fractures without necessitating any additional facial incisions other than a small stab incision for percutaneous screw placement. The disadvantages of this approach include the requirement of basic endoscopic equipment and a learning curve for basic endoscopic techniques. One patient developed a postoperative hematoma. Otherwise, no long-term complications have resulted directly from using this technique.

Conclusions: Endoscopic assisted repair of selected maxillofrontal fractures can be successfully achieved without the morbidity and potential complications of using traditional incisions for access to these injury sites. This case series demonstrates the feasibility of endoscopic access for ORIF of selected maxillofrontal fractures, thus representing additional applications for endoscopy in craniofacial trauma.

Disclosure: The authors have nothing to disclose
Calcium Hydroxylapatite: The Beauty and the Science of Soft Tissue Augmentation

A. M. Holzapfel, MD; D. Mangat, MD; D. Barron, MD

Objective: Histologically evaluate the extent and character of tissue in-growth or reaction after injection of calcium hydroxylapatite (Radii sse™) into the subdermal tissues. Review the cosmetic and reconstructive uses of calcium hydroxylapatite for soft tissue augmentation.

Design: Prospective case series.

Setting: Private facial plastic and reconstructive surgery practice.

Patients: A volunteer sample of 10 cosmetic patients requesting soft tissue augmentation of the lips or melolabial folds.

Intervention: Each patient was injected subdermally between the dermis and the subcutaneous fat with 0.1 cc of calcium hydroxylapatite in the postauricular region. Two patients were injected bilaterally. At 1 month, the two patients injected bilaterally underwent excision of the injected material behind one of the two ears. This was sent for histological evaluation by an independent pathologist. At 6 months, the calcium hydroxylapatite was excised from the remaining patients and the contralateral ear of the bilaterally injected patients. This was then sent for histological evaluation. The degree and character of tissue reaction and in-growth was evaluated.

Main Outcome Measures: Histological characteristics of the tissue reaction and in-growth to the injected calcium hydroxylapatite.

Results: Significant foreign body reaction was observed in the samples analyzed at 1 month. Granuloma formation had already begun. At six months, fibroblastic in-growth was noted with encapsulation of the calcium hydroxylapatite microspheres. There was no evidence of heterotopic bone growth.

Conclusions: Calcium hydroxylapatite is a stable soft tissue filler that stimulates connective tissue in-growth. Calcium hydroxylapatite is also an effective filler useful for lip and melolabial fold augmentation.

An Unusual Complication of Malar Augmentation

J.R. Jordan, MD; J. Smith, MD

A case report of a facial pneumatocele following malar augmentation with a silicone implant is presented and is documented with preoperative and postoperative photographs as well as CT scans. The proposed mechanism is discussed. Successful treatment without removal of the implant is reviewed.

Extended Access to the Lateral Orbital Wall: The Retrocanthal Approach

S. Jothi, MD; K. Moe, MD

Objective: Access to the lateral orbit is necessary for repair of orbital and zygomaticomaxillary complex fractures. The two main approaches to the lateral orbit in use today include the lateral brow and lateral blepharoplasty incisions. Both of these leave visible scars and provide limited access to the lateral orbital wall, especially in the region of the greater wing of the sphenoid, which is a critical landmark for restoring the orbit and zygoma to their premorbid position. To overcome this, we developed a retrocanthal approach to the lateral orbit. This article will describe the approach, including a cadaver study and prospective outcome study of its use.

Methods: Five cadaver heads (10 eyes) were studied to define the possible exposure and anatomic landmarks of the approach and develop the appropriate surgical technique. The procedure is performed as follows: A transconjunctival incision is made posterior to the attachment of the lateral canthal tendon on the medial aspect of the lateral orbit at Whitnall’s tubercle. This is extended superiorly in the preseptal plane along the orbital rim as high as the lateral aspect of the to the levator aponeurosis, staying anterior to the lacrimal gland. The incision is then extended inferiorly in the preseptal plane to the lateral orbital floor. Once the incision is completed, dissection is continued deep to the peristome to expose the medial aspect of the orbital wall as necessary. If access to the lateral aspect of the orbital wall and body of the zygoma is required, the lateral canthal tendon can be transected and repaired at the conclusion of the case. The approach was then performed in 10 consecutive patients with extensive fractures involving the lateral orbital wall and floor. Patients were photographed before and after surgery to assess eyelid position, and postoperative eyelid function was documented in followup for 6 months after surgery.

Results: The cadaver dissection study demonstrated the anatomical feasibility of the retrocanthal approach as well as the wide exposure that it provides to the medial aspect of the lateral orbital wall as far posterior as the orbital apex, including the area of the zygomaticosphenoid suture. The frontozygomatic suture can be plated through this approach to stabilize fractures, allowing placement of the plate on the medial aspect of the orbit where it is not palpable, if desired. By combining this with the transconjunctival approach, even very large implants can be placed to repair the floor and wall without the need for lateral canthotomy. In 10 consecutive cases, excellent visualization was provided and reconstructive material was placed without difficulty. There were no perioperative complications, and no evidence of impaired eyelid function from the approach.

Conclusions: The cadaver study confirmed that the retrocanthal approach to the lateral orbit could be safely performed and demonstrated the unparalleled access that could be obtained extending from the orbital roof to the floor. This was confirmed in 10 consecutive cases of orbital fracture repairs in which there were no complications or morbidity related to the approach, and it was confirmed that the incision could be easily combined with a preseptal transconjunctival approach to expose the entire orbital floor and lateral orbit. This approach should be equally efficacious for other procedures such as orbital decompression, tumor excision and foreign body removal.

Reconstruction of Large Scalp Defects Using the Ulnar Forearm Free Flap

A.M. Karamzadeh, MD; S. Daines, S., MD; B. Torkian, MD; A. Salibian, MD

Introduction: Free tissue transfer has been the reconstructive option of choice for large soft tissue defects of the scalp. The latissimus dorsi, serratus anterior, radial forearm, scapular, and rectus abdominus free flaps have traditionally been the workhorses of scalp reconstruction. The choice of flap is dependent mainly on the size of the defect and the surgeon’s preference. We provide the first clinical series describing the utility of the ulnar forearm free flap (UFFF) in scalp reconstruction.

Methods: Retrospective review.

Results: Seven patients with scalp defects ranging from 20 cm² to 340 cm² (mean 161.6 cm²) were treated with an UFFF. The
superficial temporal artery was used for the arterial anastomosis in four patients, while the external carotid artery was used in the other three. This choice was made based on the condition of the local tissue. In cases in which the external carotid artery was used, a contralateral radial artery graft was harvested to extend the length of the pedicle. The internal jugular vein was used for the venous anastomosis in all cases. Flap survival was 100%. There was one case of limited flap infection, and one case in which a branch of the ulnar nerve was repaired intraoperatively due to inadvertent section. There were no cases of parathesias or motor weakness. In one case, minor flap loss required local tissue advancement for coverage.

Conclusion: The UFFF is analogous to the radial forearm fasciocutaneous flap in terms of harvesting, contouring and durability. However, due to the centrally located arterial pedicle, a larger skin paddle can be reliably harvested without donor site morbidity or aesthetic compromise. Further, since this is not a muscular flap, which tends to undergo significant atrophy especially following XRT, the UFFF maintains its bulk. The outcomes of this series support the UFFF as an important and useful alternative for reconstruction of large scalp defects.

Technical Considerations in Patients Requiring a Second Microvascular Free Flap in the Head and Neck

S. S. Khariwala, MD; B. Wood, MD; R. Esclamado, MD; D. Alam, MD

Introduction: Aggressive management of stage 4 head and neck malignancy often requires microvascular free flap reconstruction. Many of these patients are predisposed to tumor recurrence resulting in the need for a second free flap reconstruction. Little data exist regarding the use of second free flaps and associated outcomes. This study aims to identify the difficulties associated with performing a second free flap in the head and neck as well as the techniques used to achieve successful reconstruction.

Methods: This study was performed as a retrospective review. Only those patients who required a second free flap in the head and neck were included. Several variables were analyzed in this cohort. Patient-related factors include: the availability of recipient vessels, the need to access the contralateral neck, history of prior neck surgery, history of radiation, and type of free flap used. Complications associated with the reconstruction were also studied.

Results: In this cohort of ten patients, thirteen free flaps were performed. All were successful and there were no flap-related complications. The contralateral neck was commonly used but no patients required vein interposition grafts. The type of free flap utilized was forearm (n=5), fibula (n=7) or serratus rib (n=1). The facial artery was the most commonly used in flow vessel. The internal jugular vein, external jugular vein and common facial vein were each used for venous drainage in 4 free flaps.

Conclusions: Second free flaps in head and neck reconstruction can be safely accomplished. Although dissection of the contralateral neck is often required, the use of flaps with long pedicles obviates the need for vein interposition grafts. When compared to the success rate in this study, the relevant literature suggests lower flap survival rates when interposition grafts are used. In the case of the fibula flap, the flap should be rotated at the time of inset to bring the donor vessels closer to the recipient vessels in the neck. We have found that the availability of recipient vessels in the neck is the most important consideration in these patients. Therefore, we recommend identification of such vessels early in the reconstructive procedure.

Evaluation of Non-invasive Treatments for Aging Face

S. Lee, MD; S. Most, MD

Introduction: The popularity and public exposure of cosmetic surgery has increased dramatically over the past decade. Concurrently there has also been an increase in the number of products which claim to provide similar results to surgery but do so non-invasively. We examined two products used to enhance appearance to determine their efficacy and results.

We tested the DermalToneâ and Rejuvenique facial toner systems. These systems are based on the premise of utilizing a small amount of electrical current to stimulate the facial muscles and theoretically result in skin tightening, improved facial tone, and an enhanced appearance. We sought to determine objectively the efficacy of these devices.

Materials and Methods: The Dermaltone and Rejuvenique devices were studied by enrolling 18 unpaid volunteers in a prospective fashion. These volunteers were then asked to use the device for 4 months according to the manufacturer’s guidelines. Standard photographs were taken before and after the use of the device and then blinded to a set of independent observers used a standardized rating system to evaluate specific parameters of facial aging. In addition, standardized questionnaires were provided to measure patient satisfaction with the device. This study was performed under the auspices of the University of Washington Human and Subjects Division.

Results: The Dermaltone and Rejuvenique devices were utilized for an average period of 4 months in each arm. Using a standardized rating system, the independent observers did not determine any statistical difference between pre- and post-treatment photographs. The majority of patients did not feel the devices produced any effect.

Discussion: The increase in exposure and popularity of cosmetic surgery has led to a large number of after-market products claiming to provide a “quick fix” to enhance appearance. Unfortunately, these products are largely unregulated and often make claims of clinical benefit without rigorous study. Herein we have objectively measured the efficacy of two such products. We show in this prospective study that the two facial ‘toning’ systems tested do not provide a discernible benefit and are not a substitute for cosmetic surgery. As there are innumerable similarly marketed devices and so-called “cosmeceuticals” available to the public, it will remain important to continue to test these products’ efficacy in order to better inform our patients.
Current Trends in Upper Lip Reconstruction: A Survey of Facial Plastic Surgeons  
T.J. Martin, MD; J. Rhee, MD

Objectives: Many options exist for repair of moderate size upper lip defects. The purpose of this study was to discern the current practices and choices of a select group of surgeons in regard to upper lip reconstruction.

Methods: Three hundred thirteen surveys were mailed to a random sample of diplomats of the American Board of Facial Plastic and Reconstructive Surgery. Survey recipients were asked to rank according to personal preference 4 reconstructive options for a pictured defect of the mid upper lip. Surgeons were further asked to modify their rankings given different patient factors. Attitudes towards the Abbé flap were also surveyed. Surgeon experience, practice setting, and comfort level in managing this problem were correlated with choice of ranking orders.

Results: Survey response was 45.6%. For all respondents, the Gilles Fan flap was ranked as the first choice in 34.4%, followed by the Abbé flap (31.2%), myocutaneous rotation flap (20.5%) and nasolabial flap (13.9%). Using Cochran-Mantel-Haenszel analysis, the nasolabial flap was found to be least popular choice (p < 0.01). There was no statistically significant difference amongst the other 3 choices. For surgeons with the most experience (>20 years) and those with the least experience (<10 years) the Abbé flap was the most common first choice (38.9% and 32.4%, respectively). For surgeons with 11-20 years experience, the Gilles Fan flap was the most common first choice (46.2%). In addition, the Gilles Fan flap was most often the first choice (43.3%) for surgeons who identified maximal comfort level with upper lip reconstruction.

Conclusions: A polling of a select group of surgeons demonstrated variability in their choice of upper lip reconstruction options. However, the nasolabial flap was found to be the least chosen option and trends in choices based upon experience and comfort level were demonstrated.

Lower Eyelid Splinting: An Alternative to the Frost Suture  
K. S. Moe, MD; S. Jothi, MD

Objective: Postoperative lower eyelid suspension is often required to prevent or correct eyelid malposition as an adjunct to numerous procedures such as entropion or cicatricial ectropion repair or repair of orbital fractures. The method currently used for this (the “Frost stitch”) has numerous disadvantages including complete monocular visual loss while it is in place. The purpose of this article is to describe a new method of postoperative eyelid suspension and an outcome study of its efficacy.

Design: Outcome study of 10 consecutive patients. All patients who would potentially need postoperative eyelid suspension were entered into the study. Candidates included adult men and women with entropion requiring posterior lamella grafting; cicatricial ectropion or cutaneous malignancies requiring anterior lamella grafting; or severe orbital fractures that might lead to postoperative lower eyelid malposition as a result of the extended access requirements. Patients were photographed before and after surgery in a standard protocol, and followed for at least 6 months postoperatively to determine if evidence of postoperative lower eyelid malposition developed.

The lower eyelid splint was placed in the following method. At the conclusion of the surgical procedure, a sheet of Xeroform® gauze was folded into 6 overlapping layers. It was then cut to conform to the shape of the inferior orbital rim extending from the medial to lateral canthus. The margins were then sutured to the lower eyelid using interrupted 4-0 nylon sutures beginning in the center of the eyelid and progressing laterally and medially. Sutures were then placed at the medial and lateral canthi to raise the eyelid above the inferior limbus. Finally, sutures were placed along the inferior orbital rim to provide further lift from an inferior vector. The papillary function was checked at the conclusion of the surgery and again before discharge from the recovery room. The splint was removed at postoperative day 7.

Results: There were no perioperative complications related to the surgery or placement of the eyelid splint. No persistent cutaneous marks were noted from the sutures after healing. There were postoperative complications such as shifting of the splint, corneal ulceration or other ocular damage. There were no instances of development or recurrence of lower eyelid malposition. One patient had restricted elevation of the lower eyelid on upward gaze, but she was asymptomatic and content with the surgical outcome. While some patients would have preferred not to require an external splint, they were glad to have had this rather than having their eyelids sutured shut for suspension with a Frost stitch.

Conclusions: The lower eyelid splint appeared to be efficacious and maintain lower eyelid position in this series of patients at high risk for development of postoperative eyelid malposition. There were no complications with its use, and the splint was tolerated well. Though this study did not directly compare use of the splint with the Frost stitch, it is quite possible that the splint is safer because no sutures cross the cornea, pupillary function and visual acuity can be checked postoperatively, patients can continue to use the operated eye (including while driving), topical drops and ointment can still be administered with ease, and postoperative tightening of the suspensory apparatus is not required.

Brow Position Recognition and Correction in Reconstructive and Cosmetic Surgery  
C.L. Noel, DO; M. Frodel, MD

Objective: To improve recognition of brow ptosis, asymmetry or deformity and selection of the appropriate surgical technique based upon the patient’s underlying etiology.

Design: Nonrandomized, retrospective study of 33 patients undergoing surgical correction of brow asymmetry. Surgical procedures were performed by one facial plastic surgeon. Preoperative evaluation of patients, identification of patient-specific appropriate surgical technique, and photographs and grading of postoperative results are discussed.

Results: 33 consecutive patients were identified with asymmetric brow ptosis or deformity with or without facial nerve paralysis. Varying etiologies included congenital, traumatic, age-related, iatrogenic or idiopathic. Patients underwent either open (midforehead or coronal) or endoscopic procedures specific to their presentation. All patients had a minimum follow-up of at least six months. Preoperative and postoperative photographs were obtained and graded. Complete symmetry was achieved in 4 patients (15%), significant improvement was achieved in 21 patients (65%) and modest improvement was achieved in 6 patients (20%). No patients were graded to have no improve-
met. No significant postoperative complications are reported. Recommendations for improving results are included.

Conclusion: The key to correction of brow ptosis in reconstructive and cosmetic patients is to first recognize the asymmetry. It is also important to recognize the effect of reconstructive surgical procedures on brow position and limit the need to perform additional procedures to correct resultant brow asymmetries and deformities. Finally, having a variety of browlifting surgical techniques to choose from in order to appropriately select one specific to the patient’s underlying etiology will improve postoperative results.

**Bone Tissue Engineering Using Hollow Fiber Technology**

R. M. Odland, MD, PhD; W. Shao, MD; L. Kidder, MD

**Objectives:** Living bone tissue is frequently needed in head and neck reconstruction for a variety of tissue defects. In vitro engineered bone tissue offers an attractive option for its convenience, availability, storability, freedom from donor site morbidity, and relative ease of use. Most conventional cell culture technology is only able to achieve tissue thickness around 1-2 mm, and falls short of the thickness needed for large defects, especially reconstruction of a hemimandible. This primary limitation of cell culture thickness is the dependence on diffusion to the central area of the scaffolding both during cell growth and after implantation.

This presentation describes a new approach to engineering large grafts, which uses convection as the primary means of nutrient delivery to the central graft. Hollow fibers, which are small tubules with semipermeable walls, can be implanted into the center of the scaffolds. Infusion of oxygenated cell culture media into the hollow fiber catheter results in uniformity of flow to the central area of the scaffold, and subsequent radial flow from the core to the periphery.

In this study, six tissue culture scaffolds were prepared with a hollow fiber perfusion system. Cell seeding was performed by conventional methods. Half the scaffolds were perfused and half were not. Cell viability and differentiation were compared in the two groups. The central hypothesis of this study is that more differentiated cells survive in the central areas of scaffolding after eight weeks of hollow fiber perfusion than nonperfused scaffolds. The long range goal of our project is to culture large blocks of engineered tissue that can be implanted for reconstruction of hard and soft tissue defects.

**Study Design:** Controlled, in vitro, tissue culture study.

**Methods:** Hollow fiber technology

The hollow fiber used in this study was a 1 mm diameter nylon tube with 25-micron pores laser-drilled throughout the length of the catheter. Resistance to flow through the pores was greater than resistance to flow through the tubule, so linear uniformity of outflow is achieved.

**Scaffolding.** Cylindrical blocks (1 cm in diameter and 1 cm in length) of hydroxyapatite (HA, Interpore, Irvine, CA) were prepared. A 1-mm channel was drilled in the long axis of the block for implantation of the hollow fiber catheter. The catheter was positioned in the channel and secured. The distal end was sealed. The central catheter was attached to the perfusion apparatus.

**Cell Seeding.** First, fetal rat calvarial cells were harvested (third and fourth collagenase digests) and prepared for seeding. Each HA block/fiber assembly was autoclaved for 30 minutes. Under sterile conditions, the assembly was then placed in 0.01% Poly-L-lysine solution (Sigma) and applied vacuum for 5 minutes to coat the assembly to improve cell adhesion. The assembly was then washed in serum-free Minimal Essential Medium alpha modification (a-MEM) twice and placed in vacuum for air drying. After 30 minutes, the HA was loaded with 0.6 million cells by dripping a solution of 2 million cells/cc onto its sidewall. Each block held about 0.3 cc of the solution. The assembly was then incubated at 37 degree C with 5% CO2 in osteogenic culture (a-MEM, 10% fetal bovine serum, 10 nM dexamethasone, 10mM α-glycerophosphate, and 50 Ig/ml ascorbic acid) for 2 hours to allow cell adhesion.

**Perfusion.** An apparatus was prepared that pumped media at 2 cc/hour through the hollow fiber and into the HA block. The media was collected in a bath surrounding the HA block, pumped through a microfilter, into a 95% air-5% carbon dioxide bubble exchange tower, and back into the HA block. The osteogenic culture medium, described above, was changed every 2 days. All discarded medium was collected and stored in a −70 degree freezer and analyzed for markers of osteoblast differentiation. After 8 days of perfusion, the blocks were harvested and bisected for cell counting.

**Study Design:** All blocks were prepared and seeded in the same manner. The treated group was perfused as above. The control group was maintained in the same incubator for an equal time period in the same media formulation, but no perfusion was performed.

**Outcomes:** Cell counts were performed on viable cells, markers of osteoblast activity in the discarded media were assessed, and scanning electron microscopy was performed to identify osteoblastic cell morphology and distribution.

**Cell Counts.** For cell counting the bisected blocks were first incubated with 5-chloromethylfluorescein diacetate (CMFDA), a fluorescence-based cell viability assay, in a-MEM for 2 hours. Cell counts at the periphery and the center of each block were measured under UV light at 450 nM. CMFDA is a membrane-permeant molecule that is nonfluorescent. Once CMFDA diffuses into a cell, esterase hydrolysis converts the nonfluorescent CMFDA to fluorescent 5-chloromethylfluorescein (CMF), which can then react with thiols on proteins and peptides to form aldehyde-fixable conjugates. The conjugate product is not membrane-permeant and has green fluorescence under UV light. CMFDA will not be converted to CMF in dead cells due to lack of appropriate enzymes.

To count cells in the HA block after harvest, the block was cut longitudinally, with two axial sections through the cylinder at right angles. These four fragments were then incubated with CMFDA solution for 2 hours. Cell counts were immediately measured and cell densities of the three zones were calculated. Cell counts can be stratified into two zones—central and outer—from the center core to sidewall. The cut surface equally divided the cross-sectional surface into two areas, each measuring 2.5 x 10 mm². The sidewalls were counted in 2 pieces, each measuring 157 mm² (6x5x10). Cell counts within each area were obtained and cell density (counts/mm²) was calculated. Differences between perfusion and nonperfusion groups were assessed by student’s t test; a t-value with a p ≤0.05 was considered significant.

**Analysis of Markers**

Alkaline phosphatase (ALP),
osteopontin, and osteocalcin, were assayed in discarded media. Alkaline phosphatase and osteocalcin are used as a differentiation marker for osteoblasts. Osteopontin is a glycoprotein secreted by early mature osteoblasts before mineralization. Osteocalcin is a unique and specific marker of late-term osteoblast maturation. Its presence in the culture system would suggest mature osteoblastic differentiation.

Scanning Electron Microscopy
Scanning electron microscopy was performed in an effort to confirm the presence of osteoblasts. X-ray microanalysis was also performed to identify extracellular matrix composition.

Results: Cell Count
There were greater cell counts in the central areas of the perfused blocks compared to the nonperfused control blocks. See the Figure. For the center zone the perfusion group had an average cell density of 9.23 cells/mm², the control group 0.16 cells/mm²; for the outer zone the perfusion group had an average cell density of 12.5 cells/mm², the control group 1.2 cells/mm²; for the rim zone the perfusion group had an average cell density of 13.5 cells/mm², the control group 10.7 cells/mm². The perfusion group has statistically higher cell density in all three zones comparing to the control (p<0.01).

Marker Levels: The level of osteocalcin in the cell media was measured in the perfusion and control groups. In addition, culture medium from cells cultured only in a-MEM and FBS media (i.e., non-osteogenic) was measured for background. Both the perfusion and the control groups had significantly higher osteocalcin levels than the control media, indicating that the effects of osteogenic culture and possibly, to a small extent, a three-dimension effect of the scaffold. Between the perfusion and the control groups, a trend toward higher levels of osteocalcin was found in the perfused blocks, but the only statistical difference in osteocalcin level between perfused and nonperfused blocks was detected on Day 4. This suggests that overall there was osteoblast differentiation in the culture early in the observation period.

Scanning Electron Microscopy. Scanning electron microscopy demonstrated cellular and extracellular material within the interstices of the HA scaffold. Organized cellular sheets were evident along the surface of HA, and extracellular fibers were observed between cells. We were not able to demonstrate under SEM direct evidence of individual cells as osteoblasts. Gold-tagged antibody against osteocalcin could be useful in the future. X-ray microanalysis of the inorganic HA matrix demonstrated high content in phosphorous and calcium but low in carbon. By comparison, the organic cellular layer was high in carbon but low in phosphorous and calcium. Mineralized matrix immediately adjacent to the cells exhibited higher concentrations of carbon, phosphorous and calcium, as evidence of calcification of the extracellular collagenous matrix.

Discussion: The results of this study of a novel method of enhancing cell growth and differentiation in central areas of a tissue culture scaffold indicate that the methodology is based on solid concepts and deserves further study. The convective flow achieved with the implanted hollow fibers provided freshly oxygenated cell culture media to the central scaffold. Further studies can be designed to address several interesting areas. Increasing the cell density in both central and peripheral areas of the scaffolding is required. Use of varied cell culture media, oxygenation levels, perfusion flow rates, and the addition of growth factors to the media are important areas of study. Further work can establish the optimal radius of a single hollow fiber-block unit. “Honey-combing” of multiple hexagonal subunits will allow creation and implantation of large grafts. Animal models to establish host incorporation of the grafts, the effect of perfusion of angiogenic factors, and methods of “weaning” perfusion after implantation will all need to be established prior to clinical use.

Conclusions: These preliminary results indicate hollow fiber technology was able to achieve central infusion and outward radial convective flow that increased cell growth and maintained differentiation in the central areas of HA scaffolding. Development of this technology may allow creation and implantation of large engineered hard and soft tissue grafts.

Disclosure: Dr. Odland is a principal in a company commercializing the use of hollow fiber technology for treatment of tissue edema. There are no commercial applications of this project. This project was funded in part by the 2001 American Academy of Facial Plastic and Reconstructive Surgery Resident Research Award.

Figure legend: Figure. Mean Cell Counts in Three Areas of the HA cylinders. The Center is nearest the hollow fiber infusion catheter. The Outer area is the cut surface farthest from the infusion catheter. The Rim is the external surface of the cylinder, which is exposed directly to cell culture media when the blocks are in the bath solution. The perfused assemblies (Perf) have greater cell counts on the interior of the cylinder compared to the nonperfused (N-perf) control assemblies.

Three Dimensional Computed Tomography in Complex Facial Trauma
E. A. Pribitkin, MD; R. Winokur, MD; K. Saigal, MD; S. Finden, MD; D. Taub, MD

Abstract: Technological advances in computerized tomography [CT] have reduced data acquisition and reconstruction times to the point where three dimensional [3D] CT images of maxillofacial injuries may be economically and quickly generated. Methods: Illustrative case series and review of the literature Results: 3DCT was judged superior to multiplanar two dimensional [2D] CT in demonstrating the spatial relationships of fracture fragments in complex mandibular and midfacial trauma. Although 3DCT failed to demonstrate soft tissue injuries, the surgeon’s improved appreciation of the disrupted bony architecture facilitated pre-operative planning. Figure one demonstrates standard 2DCT coronal and axial views of a complex mandibular fracture. The direction and degree of dislocation of the fracture fragments is more easily appreciated in the corresponding 3DCT images (Figure 2). Conclusions: 3DCT facilitates diagnosis and analysis of complex mandibular and midfacial fractures.
Syndrome, in addition to excellent aesthetic outcome.

Primary surgical resection of parotid tumors commonly results in concave tissue deformities and the development of Frey’s syndrome. The incidence of these complications are contingent on the volume of tissue defect created and the aberrant innervation of postganglionic parasympathetic fibers into the sweat glands of the skin. Multiple surgical techniques have been well described in the prophylactic treatment of these conditions and include mechanical blockade with grafting materials such as superficial musculoaponeurotic system (SMAS), sternocleidomastoid muscle flap, fascia lata, lyophilized human dura, and dermal fat. We have used a SMAS interposition technique whereby access to the parotid gland is gained through a standard rhytidectomy incision. After tumor resection, the SMAS-platysmal flap is either rotated or advanced to offer a local prevascularized source for tissue interposition as well as correction of the parotidectomy defect. Objectives: A five year retrospective analysis of patients undergoing parotidectomy with immediate SMAS reconstruction was performed to evaluate the incidence of Frey’s syndrome and cosmetic outcome. Materials and Methods: In all parotid resection cases studied, a facial rhytidectomy incision or a modified version with contouring along the occipital hairline was performed. Following surgical resection of the tumor and visualization of facial nerve branches, tissue defects were evaluated with regard to size and location. Primary reconstruction with SMAS interposition was performed using superior rotation, posterior advancement or plication grafting. Screening for the symptoms of gustatory sweating and flushing was performed during post-operative evaluation. Cosmetic outcome was assessed by surgeon and patient post-operatively. Results: Post-operative clinical evaluation revealed excellent results in all cases of SMAS grafting. Of the medical records reviewed and the patients available for further clinical evaluation, none of the cases revealed a clinical picture consistent with that of Frey’s syndrome. In all circumstances, no complications were observed with respect to facial nerve injury, scar healing at incision site, and overall aesthetic outcome with the SMAS interposition technique. Conclusions: Primary surgical repair with sternocleidomastoid muscle flap, fascia lata, lyophilized human dura or dermal fat often does not produce optimal long-term cosmetic or mechanical barrier results for patients undergoing a surgical parotidectomy. A more direct method, involving reconstruction with SMAS grafting, offers an autologous tissue source for local interposition from an established vascular supply. This grafting technique offers an efficient prophylactic barrier, thereby reducing the incidence of Frey’s syndrome, in addition to excellent aesthetic outcome.

Background: This report describes a 46 year old woman who developed an unusual cutaneous reaction after injection of Botulinum Toxin Type A (BTX-A) for cosmetic purposes. She had a history of uneventful BTX-A treatments over several years. She was treated with an injectable filler in the glabella and peri-orbital areas approximately 2 years prior to this injection. Eight days after the BTX-A injections, the patient developed a painless swelling in her glabella and peri-orbital regions. She denied any other symptoms, and was treated with a one week course of oral prednisone. The lesions decreased in size and gradually resolved completely in 3 weeks.

Objective: To describe a case of an unusual cutaneous reaction to BTX-A. To our knowledge, this is the first report of such a case in the literature.

Methods: This is a case report and a review of the literature.

Results: There was a presumptive diagnosis of a delayed (Type IV) hypersensitivity reaction. Empirical evidence points towards this type of reaction, but without a tissue biopsy there is no way to confirm the diagnosis. Clinicians in the field of aesthetic surgery and dermatology must be aware of such reactions and report them if they occur.

Report of a case: A 46 year old woman came to our office in September 2004 for cosmetic treatment with Botulinum Toxin Type A (BTX-A). She was injected with a total of 20 units. The areas treated were the forehead, glabella and lateral peri-orbital areas. She developed an unusual cutaneous reaction after injection of Botulinum Toxin Type A (BTX-A) in the glabella and periorbital areas. She had a history of uneventful BTX-A treatments in the same areas over several years. She was treated with an injectable filler in the glabella and periorbital areas approximately 2 years ago. She was unsure what type of injectable filler was used. This was her first BTX-A treatment since the filler was placed. Eight days after the BTX-A injections, the patient developed a painless swelling in her glabella and periorbital regions. She denied any other symptoms. The patient was seen the next day in the office. The muscles injected were paralyzed as expected. However, the patient had well demarcated induration of the glabella and lateral peri-orbital areas corresponding to the areas treated with BTX-A. There was no reaction seen in the upper forehead (See Fig. 1A and 1B). The affected areas were non-tender and slightly erythematous. There was no fluctuance, drainage, dimpling, or crepitance. The patient experienced no systemic symptoms such as fever, chills, malaise, etc. A delayed (Type IV) hypersensitivity reaction was the presumptive diagnosis and a one week course of prednisone was prescribed. The lesions decreased in size and gradually resolved completely in 3 weeks. At the time, the patient refused intralesional steroid injections as well as a tissue biopsy. A subdermal injection of BTX-A was subsequently performed in the postauricular area, which did not produce a reaction. Comment: We have never seen or heard of this type of reaction with BTX-A. A Medline search of the existing literature revealed no report of such a reaction. There have been reports of distal neuromuscular effects after local injections (1), intractable headache (2), myasthenic symptoms (3), and a Botulism-like syndrome (4). There have also been multiple reports of immunoresistance to BTX-A. (5,6) This latter effect is presumed.
to be mediated through blocking antibodies produced after multiple injections of a large number of units of BTX-A. Klein discusses the protein (particularly toxoid) content of the BTX-A preparation as the main culprit in the formation of these neutralizing antibodies (7). If this is indeed the case, the formation of a unique antigenic moiety through the aggregation of the BTX-A protein with other local proteins may have caused the reaction seen in our patient. The evidence strongly suggests that there was an interaction between the BTX-A and the filler material for two reasons. First of all, there was no reaction in the forehead, which was injected with BTX-A but did not contain any filler material. Secondly, the subsequent injection with BTX-A in the postauricular area evoked no reaction. However, without a biopsy it is impossible to prove this. If the previously injected filler material is connected to this process, we should see more of this type of reaction in the future, as an increasing number of patients undergo treatments with multiple modalities and products. We encourage other investigators to report such events so we may have the opportunity to study them further.

A Report of Penetrating Nail Gun Trauma to the Head and Orbit

K Saigal, MD; D. Kunimoto, MD; J. Spiegel, MD; J. Vander, MD

There have been several reports of penetrating injuries to the head and neck as a result of accidental or improper use of nail guns. Penetrating trauma to this region, particularly with ocular involvement can have disastrous consequences. The following case describes the management of an injury to the right maxillofacial region and orbit sustained accidentally by a worker at a construction site. However, despite a dramatic injury, the patient retained normal vision and had an uncomplicated hospital course. Adherence to safety precautions involving the use of nail guns should reduce the incidence of such injuries.

A Sagital CT scan of the Head/Neck showing the oblique position of the nail entering posteriorly in the maxillo-facial region and lodged in the orbit.

Pediatric Columellar Reconstruction: A Novel Technique

B. E. Saltman, MD; M. Khosh, MD

Educational Objective: At the conclusion of this presentation, the participants should be able to explain a novel technique for columellar reconstruction and compare it with other techniques currently used to reconstruct the columella.

Objectives: Columellar reconstruction in the pediatric population represents a special challenge due to a paucity of adequate donor sites for repair. We present a novel technique for columellar reconstruction in order to avoid its usual pitfalls.

Study Design: Retrospective, chart review study.

Methods: Our new technique involves using an anteriorly based mucosal flap for soft tissue coverage and septal cartilage grafts for structural support in the columella. This technique was utilized in three patients between 5-11 years who had developed CPAP acquired columellar necrosis. Patients were followed for an average of 4 years (minimum 3, maximum 5 years). Pre- and post-operative photo-documentation was used to evaluate cosmetic outcome. Patients and their parents were surveyed after treatment for nasal function, cosmetic appearance, and overall satisfaction. Anterior rhinoscopy and nasal endoscopy were used pre- and post-operatively to assess nasal airway patency.

Results: Our technique was effective in restoring columellar appearance to the satisfaction of patients and parents. Minor revisions were necessary in two patients. There were no surgical morbidities such as post-operative bleeding, flap necrosis, septal perforation, or nasal obstruction.

Conclusions: Anteriorly based septal mucosal flap with cartilage grafting is safe and efficacious for columellar reconstruction. Compared to other described surgical techniques, this procedure has the advantage of reliable flap survival, adequate columellar projection, and absence of visible donor site incisions or defects.

Microsurgical Reconstruction for Radiation Necrosis: An Evolving Disease

H. D. Sandel, IV, MD; S. Davison, MD, DDS

Study Design: Retrospective chart review, tertiary care medical center

Objectives: To report our experience with microvascular reconstruction in the head and neck in patients who presented with radiation induced tissue damage. We will discuss the effects of radiation to soft tissues and bone in the head and neck as well as the challenges it presents for later free tissue transfer.

Methods: Patients were identified who underwent free tissue transfer to the head and neck for radiation induced tissue injury by the senior author at our institution. Data was collected to include location of the primary disease, radiation amount and zone of radiation injury, initial surgical reconstruction, time to development of radiation necrosis, type of free flap selected, recipient vessel selection, the number of sequential free tissue transfers, hyperbaric oxygen therapy, flap success rates, and minor complications. Patients were excluded if recurrent cancer was identified at any time following reconstruction.

Results: 161 free flaps were performed from 2000-2004 in the head and neck by the senior author at our tertiary care institution. 14 patients were identified who met the inclusion criteria and 18 free flaps (2 lateral thigh, 3 iliac crest, 2 radial forearm, 1 transverse rectus abdominis, 5 fibula, 3 latissimus dorsi with associated rib, and 2 scapula) were performed for radiation induced complications. 5 patients required multiple sequential free flaps. Anastomosis was performed within the radiation zone of injury in 15 cases (83%) where as 3 (17%) were performed outside the zone of injury. 43% of patients (n=6) underwent hyperbaric oxygen therapy. After initial reconstruction the incidence of complications requiring surgical intervention included skin breakdown (n=9), fistula (n=4), persistent radionecrosis (n=5), abscess (n=1), and wound contracture (n=1). The mean time to follow up was 17.5 months (range 1-49). There was a 5% partial flap failure rate (n=1) that was salvaged by thrombectomy. There were no total flap failures.

Conclusions: As primary treatment for head and neck cancer moves towards radiation therapy, microsurgical reconstruction is playing an increasing role for those patients developing radiation related complications. Radionecrosis is a progressive disease where the incidence is increasing as patients are surviving longer. Hyperbaric oxygen is an important adjunctive therapy but restoration of blood flow is paramount. Understanding the effects of radiation on soft tissue and bone and the complexity of reconstruction in its’ zone of injury will greatly improve the success of reconstruction.
Nasal Septal Abscess: Three Spontaneous Occurrences in the Chronic Asymptomatic HIV Patient and the Need for Early Intervention and Reconstruction

H. D. Sandel, IV, MD; S. Davison, MD, DDS

Study Design: Case series and literature review

Objectives: To report on three unusual cases of spontaneous intranasal septal abscesses in chronic asymptomatic HIV patients. We will discuss the importance of early diagnosis and intervention as well as reconstructive techniques and dilemmas.

Methods: Three patients were identified between the years 2001 and 2005 who presented with a spontaneous nasal septal abscess in the absence of previous trauma, surgery, sinusitis, or a severely immunocompromised state. An extensive Medline search was conducted revealing no other cases of spontaneous isolated nasal septal abscesses.

Results: Each of these patients presented to the emergency department with complaints of fever and headaches with two of them also having nasal obstruction, nasal and lip swelling, and pain. There was no history of trauma, nasal surgery, or recent infection. Each of them were chronic asymptomatic HIV patients with CD4 counts of 398, 1066, and 649 with viral loads of <1000, <24, and 1100 respectively. They were found to have isolated anterior nasal septal abscesses through clinical exam and imaging studies. In each case an incision and drainage was performed immediately and parenteral antibiotics was started. Although no patient had an immediate loss of septal cartilage or nasal support, the first patient developed a crooked and saddle nose deformity requiring reconstruction seven months later. The other two patients had no deformity after one month and one week respectively. The organism Staphylococcus aureus was identified in each of these three cases.

Conclusion: Intranasal septal abscesses can occur spontaneously in the chronic asymptomatic HIV patient without previous trauma, surgery, sinusitis, or a severely immunocompromised state. These are the only three cases reported in the literature of spontaneous isolated nasal septal abscesses. Immediate diagnosis and intervention is important but can still lead to a delayed loss of the tip support mechanism. It is imperative to incise and drain the pericondrium preserving the septal cartilage support immediately and perform early reconstruction to prevent the functional and cosmetic sequelae.

Repair of Helical Rim Defects Using a Single Staged Transposition Flap

J.D. Sedwick, MD; C. Langdoc, MD

Educational Objectives: At the conclusion of this presentation, the participants should be able to discuss the use and utility of a novel technique for repair of cutaneous helical rim defects.

Objectives: To demonstrate the use of a novel technique in the repair of cutaneous helical rim defects using a single staged transposition flap.

Study Design: Case Series

Methods: Three patients who underwent Mohs micrographic surgery of cutaneous cancers of the helical rim were repaired using a single staged transposition flap.

Results: All three patients were noted to have repair of the helical rim contour with minimal cosmetic deformity, minimal donor site morbidity, and excellent tissue match.

Conclusions: The single staged transposition flap offers many advantages over previously described techniques. It is easy to design, can be performed in a single stage, results in restoration of the helical rim contour, and results in minimal donor site morbidity.

Review and Analysis of Mandibular Angle Fractures: Can A Consensus On Fixation Be Found?

J. S. Seibert, MD; M. Key, MD; E. Vural, MD

Ever since Hamburg surgeon, Carl Hansmann, presented his experiences with rigid plate and screw fixation in 1886, the treatment of mandible fractures has made great strides in technological advances. Rigid plate fixation in maxillofacial surgery, begun by Hansmann, continues to evolve with the help of organizations such as the AO/ASIF (Arbeitsgemeinschaft fur Osteosynthesefragen/Association for the Study of Internal Fixation). With this growth and development, differing techniques and philosophies have also progressed. Today, appropriate treatment of the mandible fracture at the angle continues to be challenging and somewhat confusing. After evaluating the current and pertinent literature, the goal of this research was to review our management of mandible angle fractures and compare our outcomes with previously published data. Over a period from August 1998 to March 2004, 144 patients were seen and treated for mandible angle fractures at our university medical center. The electronic medical record for these 144 patients was reviewed including the pre-operative assessment, the operative note, and the post operative clinic visit. One hundred and twenty-one qualified to be included in our retrospective study. Twenty three were excluded because either had no operative note, no documented follow up visit post-operatively, or massive facial trauma with loss of tissue (explosion or close range gunshot injury). Of the 121 patients, the average age of the patient was 30.2 years.

Overall there were a total of 131 angle fractures, and only 20 plate removals. Four were removed in the six week post-operative period. This resulted in a 3.05% major complication rate defined as plated removal in the early post-operative period. If all plate removals were included, a 9.36% overall complication rate would be found. There were 91 left angle fractures. Eleven of the left angles were treated with MMF alone. One left angle was treated with MMF initially then later plated because of malunion. Nine were plated on Champy’s line alone with 2.0 or a 2.3 miniplate. Fourteen of the left angle fractures had plate removal. Only three required plate removal in six weeks or less, two due to infected hardware and one due to a broken plate. Average time for plate removal was 6 months.

There were 40 right angle fractures. Eight were treated with MMF. Three were plated with a 2.0 plate on Champy’s line. Six patients had plates removed from the right angle. Only one patient had hardware removal in the six week post operative period. This patient was placed in MMF post operatively after the first plating. The average time for right angle fracture plate removal was 9 months.

Three of 12 single miniplates on Champy’s line required removal at some point. Indications included malunion, exposed hardware, and pain with hardware. None of these secondary procedures were done in the immediate post operative period. This limited number group has shown promising results but requires further study by our surgical staff.

Previous studies on angle fractures have reported complication
rates ranging from 32%-3%. However, many of these included post operative wound infections, temporary plate exposure, and malocclusion, in addition to plate removal. Our data would seem to suggest that our plating complication is acceptable in comparison. Concerning plate removal, single miniplate use has no significant increase in removal rate compared to two miniplate use. Furthermore, in the early post operative period, both have shown to be equally effective in achieving adequate immobilization.

The angle of the mandible has proven to be a difficult place to achieve rigid fixation secondary to opposing forces of mastication and muscle attachments. There has been extensive clinical and laboratory setting research on which is the best method and placement for fixation of this area. After reviewing the literature, especially on miniplate technique, our data would seem to suggest that our plating complication is acceptable in comparison.

Use of Fibrin Glue Without Dressings and Without Drains for Deep Plane Facelift
V. M. Sharma, MD; M. Glasgold, MD; R. Glasgold, MD

Objective: To evaluate our experience and complication profile with the use of fibrin glue without dressings or drains for deep plane facelift. Patients consistently and frequently complain of significant post-operative discomfort as a result of traditional pressure dressings. We will examine our use of fibrin glue instead of dressings or drains as an effort to make the patient’s facelift experience more pleasant and tolerable without incurring unwanted morbidity.

Design: Prospective case series - consecutive patients presenting for facelift. n=75.

Setting: Private facial plastic surgery practice in Highland Park, New Jersey.

Patients: Consecutive sample of patients undergoing facelift. Intervention: Facelift with use of fibrin glue without dressings or drains. A newer formulation and delivery technique of fibrin glue is utilized. Fibrin glue with thrombin 5 IU/mL is delivered via pressurized gas spray technique.

Main Outcome Measure: On the first post-operative day, patients undergoing facelift complete a survey detailing their subjective experience. This survey utilizes a subjective pain scale, records use of analgesics in the immediate post-operative period, and allows the patient to comment on the experience as compared to his/her expectations. Complication rates, particularly hematoma, are addressed and compared with the literature. Results: Patient survey results will be analyzed and discussed. Subjective pain measures, use of analgesia, and patient expectations will be addressed. Safety of this method with regard to morbidity as measured by complication rates (particularly hematoma) will be evaluated and compared to the literature. Conclusions: The impetus for this investigation was a desire to improve patients’ subjective experience from facelift without compromising morbidity. A newer formulation of fibrin glue delivered by pressurized gas spray technique has improved the substance’s adhesive qualities without compromising its hemostatic nature. Use of fibrin glue for facelift instead of dressings or drains is a safe technique which has improved our patient’s satisfaction with the facelift experience. This technique may be easily adopted by surgeons of the aging face.

The Use of the Tissue Adhesive BioGlue for Brow Fixation in Endoscopic Browplasty
D.M. Sidle, MD; B. Loos, MD; A. Ramirez, MD; C. Maas, MD

Objective: To determine the efficacy, longevity, and safety of the use of BioGlue® Surgical Adhesive as a means of periosteal fixation for endoscopic browlifts.

Design: Retrospective review of 80 patients who underwent endoscopic browlift with the use of BioGlue as the primary means of periosteal fixation. Visits were categorized as pre-operative, 1-2 month, 3-6 month, and 7-12 month and photographs of the first 15 patients were evaluated for change in brow position at each of these timeframes. Brow position was measured at lowest brow hairs at the mid-pupillary and lateral canthus positions. Follow up ranged between 3 months and 3 years.

Setting: Private practice.

Patients: Patient who underwent endoscopic browlift where BioGlue surgical adhesive was used as the primary means of periosteal fixation.

Results: Of the first 15 patients, all 15 were included in the one-to-two month post-operative grouping, 13 in the three-to-six month post-operative grouping, and 10 in the seven-to-twelve month post-operative grouping. At the 1-2 month post-operative visit, the mean brow elevation at the mid-pupillary site (MP) was 17.0% (p=0.0004) on the left and 18.3% (p=0.0005) on the right. The mean brow elevation at the lateral canthus (LC) at 1-2 month visit was 18.6% (p=0.0003) on the left and 18.3% (p=0.0005) on the right. The MP at 3-6 months was 18.6% (p=0.0126) on the left and 25.2% (p=0.0045) on the right and the mean brow elevation at the LC was 21.2% (p=0.0065) on the left and 21.3% (p=0.0025) on the right. The mean brow elevation at 7-12 months at the MP was 17.3% (p=0.0088) on the left and 17.1% (p=0.0154) on the right. The mean brow elevation at LC at the 7-12 month visit was 21.3% (p=0.0014) on the left and 17.1% (p=0.0325) on the right. Revision was required in only one patient out of a total of eighty procedures to date.

Conclusions: BioGlue surgical adhesive is an effective and safe method of maintaining proper brow position in endoscopic browplasty. Brow elevation achieved with BioGlue was significantly maintained over the seven-to-twelve month post-operative study period, beyond the critical period in which periosteum readheres to bone. Tissue adhesives such as BioGlue have the potential to become significant adjuncts in facial plastic surgery and warrant more critical evaluation in future studies.
Determination of Shear Strength of Periosteum Attached to Bone with BioGlue Surgical Adhesive
D. M. Sidle, MD; C. Maas, MD

Objective: To determine the shear strength of BioGlue® surgical adhesive as a tissue adhesive for use in periosteal fixation and to determine how its adhesive properties compare to that of native periosteum on bone.

Design: Controlled, physiologic determination of shear strength of periosteal attachment to native bone and that of dissected periosteum affixed to bone with BioGlue surgical adhesive.

Methods: Twenty-one periosteum/bone samples were harvested from three human cadaveric donors. These samples were tested for maximum shear strength using an Instron Model 5500. Native samples (n=9) consisted of periosteum still attached to the bone surface, while BioGlue samples (n=12) consisted of dissected periosteum reattached to the bone surface using BioGlue surgical adhesive. The maximum shear strength attained for each sample was recorded and used to determine if native samples differed from those utilizing BioGlue surgical adhesive.

Results: The average maximum shear strength values obtained during testing were 57.8±31.7kPa and 45.9±27.4kPa for native (n=8) and BioGlue (n=9) samples, respectively. One native and three BioGlue samples sustained periosteum tissue rupture prior to shear occurring. There was no statistical difference between the native and BioGlue samples (p>0.05) using an ANOVA. (See Figure 1 on separate attached GIF file.)

Conclusions: This study demonstrates that the adhesive properties of BioGlue are comparable to that of native periosteum on bone. These results support the use of BioGlue as an alternative method of fixation for use in endoscopic browlifting. Furthermore, they support the continued investigation of BioGlue as a tissue adhesive for use in facial plastic surgery procedures.

Restorative Treatment for HIV-associated Facial Lipodystrophy
S.L. Silvers, MD; J. Eviatar, MD; M. Echavez, MD

Purpose: The purpose of this study is to assess the safety and efficacy of subcutaneous injections of Radiesse™ to restore facial contours in patients with HIV-associated facial lipodystrophy.

Methods: One hundred (100) patients with HIV-associated facial lipoatrophy were enrolled into the one year study between July 2004 and August 2004 at three (3) centers. Inclusion criteria included a grade 2, 3 or 4 on the Carruthers Facial Lipodystrophy Severity Scale (grade 1 being mild and localized lipodystrophy; grade 2 being deeper and longer atrophy with the facial muscles beginning to show through; grade 3 defined as atrophic areas that are even deeper and wider with the muscles clearly showing through; and grade 4 defined as atrophic areas covering a wide area extending up towards the eye sockets with the facial skin lying directly on the muscles). All patients had facial skin depth measurements, a facial global aesthetic improvement rating (GAIS rating) and photographs taken at baseline, and at three (3) month visits. Patient satisfaction with the treatment was documented at follow-up visits. Restorative treatment by Radiesse (Calcium Hydroxylapatite microspheres suspended in a resorbable carrier gel) injections were initially performed at baseline, and touch-up injections were provided four (4) weeks and twenty-four (24) or twenty-eight (28) weeks later, if indicated. Photographic documentation was performed at each visit.

Results: At 4 months, the average volume of product injected at baseline was approximately 5 mls per patient. 85% of the patients received a touch-up injection. The average volume injected at the touch-up treatment was approximately 2 mls. There were no unanticipated adverse events or complications. The results at three months after treatment (four months if the patient received a touch-up injection at four weeks) as measured by the GAIS scale were: 26% very much improved, 72% much improved, 2% improved, 0% no change and 0% worse. Patient satisfaction measures were consistently positive.

Conclusions: This study showed that patients treated with Radiesse had improved aesthetic outcomes after three months and were very pleased with their results. Radiesse is a safe and effective product for facial soft tissue augmentation in patients with HIV-associated lipodystrophy with low morbidity and high patient satisfaction. It fosters a significant improvement in the quality of life of these patients. Continuing follow-up of these patients will determine the longevity of this treatment.

Utilization of a Decadron Protocol to Reduce Post-Operative Nausea and Vomiting in an Ambulatory Aesthetic Surgery Center
S. P. Smith, Jr., MD; M. McGee, RN; M. Sullivan, MD

Introduction: Despite advances in medicine and pharmacology, post-operative nausea & vomiting (PONV) remains a common and distressing side effect from anesthetic and surgical procedures. Review of the literature estimates 20-30% of adult patients will develop PONV in the first 24 hours a surgical procedure. Severe and persistent PONV may cause tension on suture lines, bleeding, and wound dehiscence. This is concerning in the outpatient surgery setting, particularly for those practitioners performing elective cosmetic procedures.

Objective: The Performance Improvement Committee at The Sullivan Centre sought identification of an anesthetic protocol utilizing IV Decadron to reduce the institutional incidence of PONV in order to potentially decrease direct and indirect costs to both the patient and health care facility, avoid potential detrimental effects on surgical outcomes, and ultimately increase patient satisfaction.

Setting: A free standing ambulatory surgical center with both a full-time plastic surgeon (CS), and facial plastic surgeon (MS)

Methods: Beginning in January of 2004, all patients undergoing general anesthesia procedures at The Sullivan Centre, were evaluated for high risk PONV status including: history of PONV or motion sickness, preoperative anxiety, obesity, and type & duration of procedure. All patients received 8 mg Zofran p.o. 90 minutes before surgery, and again 6-8 hours after the first dose (usually at home), and those patients with a history of PONV and/or motion sickness also received 1) Decadron 10mg IVP before induction; 2) Anzemet 12.5mg IVP at the end of anesthesia; and 3) Rescue therapy in recovery as needed (12.5mg Phenergan or Reglan 10mg IVP). The incidence of PONV was then analyzed, and compared retrospectively against the previous two years (2002 & 2003) experience. Patients with or without subjective report of mild transient symptoms and without rescue therapy were considered “No PONV” patients, and those with nausea requiring rescue therapy, or any vomiting were considered “PONV” patients. Additionally, a PONV...
study form was utilized to identify any significant variables, including age, type & length of procedure, obesity, and pre-op anxiety.

Results: Performing approximately 40 cases per month, the rates of PONV at The Sullivan Centre for all patients undergoing general anesthesia was 26% in 2002, and 25.8% in 2003. Overall, through the first three quarters of 2004 since implementation of the Decadron protocol the incidence of PONV has decreased to 20.8% (68/336 patients). Regarding high risk patients (228/336) the incidence of PONV for those receiving the Decadron protocol was 17.1% (20/117), compared to 20.7% (29/111) for high risk patients not receiving Decadron. Evaluation of variables demonstrated that longer cases (168 minutes vs. 114 minutes) as well as abdominal and breast surgeries exhibited a significant increase in PONV. Age, obesity, and pre-operative anxiety did not appear to significantly impact the incidence of PONV.

Conclusion: Perioperative IV Decadron is a useful adjunct to an anesthesia protocol where reduction of PONV is critical. The benefit of Decadron for those patients not categorized as high risk should also be evaluated, especially for those patients subject to longer procedures; and breast & abdominal surgeries. Indirect and direct cost savings; a reduction in post-operative complications; and a resultant increase in patient satisfaction can be realized in the ambulatory surgery setting, with inclusion of this inexpensive agent.

Facial Clefting: Embryologic Theory and Practical Management
T.T. Tollefson, MD; A. Rafti, MD

Background: Facial clefts are rare deformities that require the reconstructive surgeon to consider the complex developmental abnormality, but also to apply practical restoration of function and cosmesis. The spectrum of craniofacial clefts have been well classified by Tessier in 1973. As with other congenital deformities, the study of the failure of normal development can provide insights into the possible etiologies such as oligohydramnios, amniotic bands, or failure of the embryologic processes to fuse. Tessier No. 0 cleft is a median cleft lip with a broad columella, hypertelorism, bifidity of the nose, and occasionally intracranial extension (Tessier No. 14). One theory of the development of the cleft nose involves the failure of the nasal and maxillary processes to fuse. The frontonasal process normally begins migration at 3 weeks gestation and ultimately, gives rise to the forehead, glabella, intercanthal structures, and prolabial segment.

Of the published techniques for treatment of such deformities, Ortiz Monasterio et al presented a series of 59 patients describing dorsal nasal skin excision, cartilaginous, and even bony reconstruction. The effect on maxillary and nasal growth is not agreed upon. Although the inheritance and expression of these deformities is not well established, Boo-Chai reported affected siblings substantiating a genetic relationship.

We describe our experience with three midfacial clefts that range from moderate bifidity of the nasal tip to severe cleft lip and nasal deformity with polyrhinia. The term *frontonasal dysplasia sequence* suggests the variable severity of these deformities. The primary goal of establishing optimal function (nasal airway patency and competent oral sphincter) and consideration of need for radiologic study of the skull base for encephalocele, nasal osteotomy and the possible effect on maxillary growth, as well as staging of procedures are discussed.

Design: Retrospective case review and literature review

Results: Reconstruction was completed without complication in the two more severe cases with closure of the cleft lip in the midline using a modified Millard rotation advancement technique and external septorhinoplasty approach, respectively.

Conclusion: Bifid nasal deformities usually fall into the spectrum of clefting that can range from cranium bifidum occultum to a depression in the nasal dorsum. Management of such deformities requires a thorough understanding of the embryologic development, accurate diagnostic assessment, and application of appropriate surgical intervention, often in a staged fashion.

What Patients Want: Gender and Attribute Preference in Selecting a Plastic Surgeon
C. P. Winslow, MD; P. Jackson, MD

Objective: To determine if patients have a gender preference and to elucidate the qualities patients seek and deem important in selecting a plastic surgeon.

Methods: Prospective validated questionnaire study, conducted at a military teaching hospital in four different specialty clinics. Results: One hundred and eighty-nine questionnaires were returned for statistical analysis. Of the 95 men and 94 women who were included in the study, 44% had a household income > $80,000. Forty-three percent had considered plastic surgery. Eighty-three percent had no gender preference for an equivalent plastic surgeon. Of those who did have a preference, there was a statistically significant preference for a female surgeon (p<0.0001) by both male and female responders. Aspects that patients listed as the most important in selecting a plastic surgeon were: a surgeon who gives an honest opinion, one who is a good listener, one who takes time to explain details, and one who appears confident. The less important aspects were: the personal nature of cosmetic surgery, a judgmental attitude, an abrupt or matter-of-fact personality, and a compassionate attitude.

Conclusions: In trying to ascertain what attributes a patient seeks in a plastic surgeon, our study focused on gender as well as positive and negative qualities about a surgeon. Most patients have no preference in gender, but those who have one prefer a female plastic surgeon. Female surgeons also were considered to be more likely to possess most of the traits listed as important by patients. This information is encouraging to women who are considering a career in plastic or facial plastic surgery.
Lower Level
Exhibition

Lobby Level
Instruction Courses
OFPSA
Intense Learning Sessions
Filler Workshop
Committee Meetings
Level 2—California Ballroom

Level 3—Catalina Ballroom
FALL MEETING

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*Deceased

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ABOUT THE AAFPRS

ITS HISTORY
The American Academy of Facial Plastic and Reconstructive Surgery (AAFPRS) was founded in 1964 and represents more than 3,000 facial plastic and reconstructive surgeons throughout the world. The AAFPRS is a National Medical Specialty Society of the American Medical Association (AMA). The AAFPRS holds an official seat in the AMA House of Delegates and on the American College of Surgeons board of governors.

ITS MEMBERS
The majority of AAFPRS members and fellows are certified by the American Board of Otolaryngology-Head and Neck Surgery, which includes examination in facial plastic and reconstructive surgery procedures, and the American Board of Facial Plastic and Reconstructive Surgery. Other AAFPRS members are surgeons certified in ophthalmology, plastic surgery, and dermatology.

ABOUT THE AAFPRS FOUNDATION
In 1974, the Educational and Research Foundation for the American Academy of Facial Plastic and Reconstructive Surgery (AAFPRS Foundation) was created to address the medical and scientific issues and challenges which confront facial plastic surgeons. The AAFPRS Foundation established a proactive research program and educational resources for leaders in facial plastic surgery. Through courses, workshops, and other scientific presentations, as well as a highly respected fellowship training program, the AAFPRS Foundation has consistently provided quality educational programs for the dissemination of knowledge and information among facial plastic surgeons.

In the early 1990s, FACE TO FACE humanitarian programs were established so that AAFPRS members could use their skills and share their talent in helping the less fortunate individuals here and abroad. FACE TO FACE: International brings AAFPRS members to third world countries where they treat children with facial birth defects and anomalies. FACE TO FACE: The National Domestic Violence Project allows AAFPRS members to perform surgery on survivors of domestic abuse who have received injuries to their faces.

The AAFPRS Foundation has developed creative ways to get members to participate in fundraising activities to support all AAFPRS Foundation programs including the humanitarian programs.

MEETINGS CALENDAR

2005
OCTOBER 28-31
43RD ANNUAL ART OF RHINOPLASTY COURSE
Director: Leslie Bernstein, MD, DDS
San Francisco, CA

2006
JANUARY 15
ABFPRS APPLICATION DEADLINE

FEBRUARY 2-7
WINTER SYMPOSIUM ON THE LATEST ADVANCES IN FACIAL PLASTIC SURGERY
Co-directors: William Mack, MD; Barbara Sengleman, MD; and William H. Truswell, MD
Park City, UT

FEBRUARY 18-25
35TH ANNUAL OTOLARYNGOLOGY UPDATES
Director: Leslie Bernstein, MD, DDS
Honolulu, HI
Maui, HI (Feb. 22-25, optional)

FEBRUARY 19-22
REJUVENATION OF THE AGING FACE
Co-directors: Peter A. Hilger, MD; Tom D. Wang, MD; and Ross A. Clevens, MD
Boca Raton, FL

MAY 1-4
9TH INTERNATIONAL SYMPOSIUM OF FACIAL PLASTIC SURGERY
Symposium Chair: Peter A. Adamson, MD
Program Chair: Kriston J. Kent, MD
Las Vegas, NV

JUNE 24-25
ABFPRS EXAMINATION

SEPTEMBER 14-17
FALL MEETING
Co-chairs: David A.F. Ellis, MD and Minas Constantinides, MD
Toronto, ON, Canada