AAMP 2018

CONFERENCE PROGRAM

THE IMPACT OF THE DIGITAL REVOLUTION ON MAXILLOFACIAL PROSTHETICS

AMERICAN ACADEMY OF MAXILLOFACIAL PROSTHETICS

65th Annual Meeting | October 27-30, 2018 | Baltimore, Maryland USA

Platinum Patron: LEGALLY MINE

Corporate Silver Patron: QUINTESSENCE PUBLISHING

Save the Date!

2019 ANNUAL MEETING

Miami, Florida USA | October 26 - 29, 2019

The 66th Annual Meeting of the
AMERICAN ACADEMY OF MAXILLOFACIAL PROSTHETICS

www.maxillofacialprosthetics.org

Welcome Colleagues
to the 65th annual meeting of the

American Academy of Maxillofacial Prosthetics

Conference Dates: October 27-30, 2018
Four Seasons Hotel
Baltimore, Maryland USA

2018 Conference Title

The Impact of The Digital Revolution on Maxillofacial Prosthetics

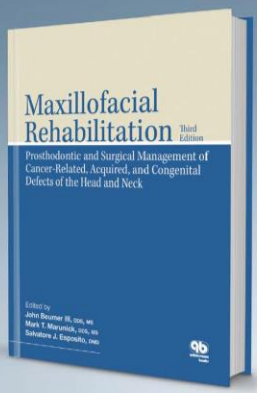
RES SEMINARS
4425 Cass St. Suite A. San Diego, CA 92109
T: 858-272-1018 F: 858-272-7687
www.res-inc.com

Come learn how to build legal barriers that protect you and your license, AND help you save money on taxes. Hear how other doctors have dealt with potentially catastrophic legal scenarios. Let us teach you how to bridge the gap between healthcare and the Law!

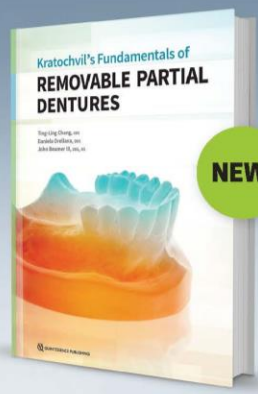
SUNDAY OCT 28TH | 12:30 - 1:10 PM
GRAND BALLROOM
CE APPROVED COURSE

Four Seasons Hotel Baltimore | 200 International Drive, Baltimore, MD 21202

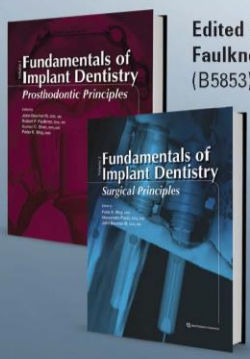
Quintessence Presents



Edited by John Beumer III, Mark T. Marunick, and Salvatore J. Esposito
(B4986); **US $198**



Ting-Ling Chang, Daniela Orellana, and John Beumer III
(B7901); **US $108**



Edited by John Beumer III, Robert F. Faulkner, Kumar C. Shah, and Peter K. Moy
(B5853); **US $168**

Edited by Peter K. Moy, Alessandro Pozzi, and John Beumer III
(B5846); **US $168**

STOP BY THE QUINTESSENCE TABLE TO TAKE ADVANTAGE OF OUR SPECIAL MEETING DISCOUNTS!

QUINTESSENCE PUBLISHING

CALL: (800) 621-0387 (toll free within US & Canada) • (630) 736-3600 (elsewhere) 10/18
FAX: (630) 736-3633 **EMAIL:** service@quintbook.com **WEB:** www.quintpub.com
QUINTESSENCE PUBLISHING CO INC, 411 N Raddant Rd, Batavia, IL 60510

Montegrappa

Available at Montegrappa boutiques and authorised dealers worldwide

MONTEGRAPPA.COM

AAMP MISSION STATEMENT

We are an association of prosthodontists who are engaged in the art and science of maxillofacial prosthetics. Our mission is to accumulate and disseminate knowledge and experience; and, to promote and maintain research programs involving methods, techniques and devices used in maxillofacial prosthetics.

The Academy is devoted to the study and practice of methods used to habilitate esthetics and function of patients with acquired, congenital and developmental defects of the head and neck; and of methods used to maintain the oral health of patients exposed to cancer-cidal doses of radiation or cytotoxic drugs.

MEMBERSHIP INFORMATION

How to Become a Member:
If you are interested in becoming a member, attending our Annual Meeting is the best way to become familiar with the membership and educational process. There are three primary membership tracks for the AAMP:

• ***Affiliate • Associate • Allied Health • Student*** •

Application Process and Membership Categories
Individuals eligible for membership in the AAMP include:
• Licensed dentists in good standing in the country in which they practice and retain citizenship
• Persons licensed, registered or otherwise permitted by law to practice as dental or maxillofacial prosthetic technicians who are involved in only non-independent or indirect patient care as directed or prescribed by a licensed dentist
• Student Membership is also available. Please see the AAMP web site to view the qualifications and to apply.

For more information, please navigate to our website:
www.maxillofacialprosthetics.org and click **membership** tab

TABLE OF CONTENTS

AAMP Administration
Dr. Alvin G. Wee
AAMP Executive Secretary/Treasurer
VA Nebraska
Western Iowa Health Care System
17018 Cinnamon Circle
Omaha, NE 68135 USA
AAMPSecTreasurer@gmail.com

IN LOVING MEMORY…

GLENN E. TURNER, DMD, MSD
AUGUST 11, 1963 – JUNE 11, 2017

Glenn E. Turner, DMD, MSD, former Director of Maxillofacial Prosthetics University of Florida College of Dentistry, passed away on June 11, 2017 after a 10-year long battle with Parkinson's Disease. He was 72 years of age.

Dr. Turner was President of the American Academy of Maxillofacial Prosthetics in 2009 and had served as a member of the AAMP board of directors for many years. He was a Diplomate of the American Board of Prosthodontics, a fellow of the American College of Dentists, International College of Dentists and the American College of Prosthodontics. He was past president of the Florida Prosthodontic Association.
He was also a retired Colonel in the US Army with wartime service in Viet Nam and Desert Storm.

The AAMP Officers and Board of Directors honor Dr. Turner's memory and service to the organization and Dentistry. He will be sorely missed by his friends and colleagues.

EDUCATIONAL GRANT SUPPORT

Journal of Prosthetic Dentistry
Editorial Council Office: The Senter Group
225 W Wacker Dr, Ste 650
Chicago, Il 60606
T: 312-981-6793
F: 312-981-6787
www.thejpd.com

ADDITIONAL SUPPORT

Circle C Ranch
7432 Honea Egypt Rd
Montgomery, TX 77316
T: 713-822-3624
F: 281-462-9628
www.circlecranch.us.com

PLATINUM PATRON

Legally Mine
PO Box 1629
Orem, UT 84059
T: 855-361-2686
F: 888-801-6454
info@legallymineusa.com
www.legallymineusa.com

CORPORATE SILVER PATRON

Quintessence Publishing Co., Inc
4350 Chandler Drive
Hanover Park, IL 60133
T: 630-736-3600
F: 630-736-3633
service@quintbook.com
www.quintpub.com

INDUSTRY PRESENTATION PATRONS

Cochlear Americas
13059 E Peakview Ave
Centennial, CO 80111
T: 877-883-3101
F: 303-792-9025
procare@cochlear.com
www.cochlear.com

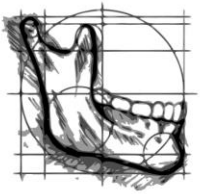
Straumann
60 Minuteman Road
Andover, MA 01810
T: 978-747-2500
F: 978-747-2490
info.usa@straumann.com
www.straumann.us

INDUSTRY WORKSHOP/PRESENTATION PATRON

Formlabs Inc.
35 Medford St. Suite 201
Somerville, MA 02143
T: +1 617 702 8476
www.formlabs.com

Technovent
Unit 5 York Park
Bridgend Industrial Estate
Briedgend, South Wales,
UK CF31 3TB
T: +44-0-1656-768566
F: +44-0-1656-650780
info@technovent.com
www.technovent.com

EXHIBITORS



CranioRehab.com
2600 W 29th Ave. Suite 102
Denver, CO. 80211
T: 800-206-8381
www.craniorehab.com

Dentsply Sirona Implants
221 W. Philadelphia St., Suite 60W
York, PA 17401
T: 844-848-0137
implants-na-cs@dentsplysirona.com
www.dentsplysirona.com

Face2Face Healing
580 S. Aiken Ave., Suite 310
Pittsburgh, PA 15232
T: 844-323-4325
info@face2facehealing.org
www.face2facehealing.org

Neocis, Inc
2800 Biscayne Blvd Suite 600
Miami, FL 33137
T: (855) 963-6247
info@neocis.com
www.neocis.com

Nobel Biocare
22715 Savi Ranch Parkway
Yorba Linda, CA 92887
T: 714-282-4800
F: 714-998-9236
info.usa@nobelbiocare.com
www.nobelbiocare.com

Panthera Dental
2035 rue du Haut-Bord
Québec City, QC Canada G1N 4R7
T: 418-527-0388
Toll Free: 855-233-0388
info@pantheradental.com
www.pantheraimplant.com
www.pantheradental.com

EXHIBITORS CONTINUED

Shofu Dental Corporation
1225 Stone Drive
San Marcos, CA 92078
T: 760-736-3277
F: 760-736-3276
customer-service@shofu.com
www.shofu.com

Southern Implants
225 Chimney Corner Way
Jupiter, FL 33458
T 561.472.0990
F 561.472.8401
www.southernimplants.com
customercare@southernimplants.com

Zimmer Biomet
1520 Tradeport Drive
Jacksonville, FL 32218
T: 904-741-4400
F: 904-741-4500
www.zimmerbiomet.com

AAMP 2018 PRESIDENT'S WELCOME

Welcome to the 65th Annual Session of the American Academy of Maxillofacial Prosthetics. This year's program chair, Dr. Arun Sharma, has assembled a distinguished group of academic, corporate, and independent authorities who will present an assortment of topics involving a multi-disciplinary approach to the rehabilitation and habilitation of patients with maxillary, mandibular, and facial anatomic deficits. In dubbing this year's conference The Impact of the Digital Revolution on Maxillofacial Prosthetics, Dr. Sharma has organized a four-day agenda of plenary, workshop, poster, and social endeavors that will assuredly prove to be as entertaining as they are educational.

With a full slate of corporate alliances willing to share their products and services, this year's workshops are being presented by the Medical University of South Carolina, Formlabs, and Technovent. Saturday's cocktail event will be replete with fellowship, Sunday's social outing to the National Museum of Dentistry should pique the interest of all regardless of their being engaged in the dental profession, and good food and music at Monday's banquet should have everyone dancing. And, of course, the autumnal beauty and historic significance of the Baltimore/Washington DC corridor should entice all-comers.

With that said, I thank you all for travelling to Baltimore and I hope your experience exceeds your expectations. I too want to thank the Academy for the trust it has placed in me as your president.

Dr. Jeffery C. Markt
President, American Academy of Maxillofacial Prosthetics

PRESIDENT'S BIOGRAPHY

Dr. Markt was raisedin Kansas City, Missouri. He obtained his baccalaureate degree from Westminster College in Fulton, Missouri and his Doctor of Dental Surgery degree fromthe University of Missouri at Kansas City (UMKC). Dr. Markt practiced general dentistry inCameron, Missouri beforereturning to theUMKC for his prosthodontic residency. After a maxillofacial prosthetic fellowship at the University of Texas M. D. Anderson Cancer Center inHouston, Dr. Markt taught in the predoctoral dental curriculum at the Southern Illinois University School of Dental Medicine and directed the maxillofacial prosthetic service at the University ofIowaHospitals and Clinics. Dr. Markt joined the University of Nebraska Medical Center in January of 2008.

AAMP 2018 Conference Program Chair's Welcome

On behalf of President Markt and The American Academy of Maxillofacial Prosthetics, I would like to welcome you to Baltimore and our 65th annual meeting. Our academy is dedicated to patient care, research and outreach. Over the next three days, you will have the opportunity to learn from some of the leaders in our field and have time for fellowship with old and new friends.

The theme for our meeting is the "The Impact of the Digital Revolution on Maxillofacial Prosthetics". The presentations will cover some of the changes that the digital revolution has brought to our profession and our speakers will ensure that this meeting will be scientifically stimulating and memorable. Our presenters will discuss and demonstrate how we can leverage these technologies to enhance and improve patient care.

I would like to thank all of our corporate partners, without their support, we would not be able to host a scientific meeting of this caliber. By collaborating with industry, we are able to provide our patients with the best available technologies, materials and products to advance the rehabilitation of this very special patient population.

Yours Sincerely,

Arun Sharma, DDS
AAMP Program Chair

AAMP Executive Officers

President

Jeffery C. Markt, DDS
University of Nebraska Medical Center
Omaha, NE, USA

President Elect

David J. Reisberg, DDS, FACP
The Craniofacial Center
The Universtiy of Illinois Hospital and Health Sciences System
Chicago, IL, USA

Vice-President

Arun Sharma
The Universtiy of California San Francisco
San Francisco, CA, USA

Vice-President Elect

Thomas J. Salinas, DDS, FACP
Mayo Clinic
Department of Dental Specialties
Rochester, MN, USA

Executive Secretary/Treasurer

Alvin G. Wee, BDS, DDS, MS, MPH
Western Iowa Health Care System
Omaha, NE, USA

Recording Secretary

James Kelly
Creighton University School of Dentistry
Omaha, NE, USA

Immediate Past President

Peter J. Gerngross, DMD, MS
Michael E. Debakey VA Medical Center
Houston, TX, USA

Board of Directors

Term Ending in 2018

Harold Kolodney
Houston, TX, USA

Stephen Wagner
Albuquerque, NM, USA

Term Ending in 2019

Joseph DiFazio
West Long Branch, NJ, USA

Theresa Hofstede
Houston, TX, USA

Term Ending in 2020

Ruth Aponte-Wesson
Houston, TX, USA

Evan Rosen
Long Island City, NY, USA

Committees

Awards

Chair	Peter J. Gerngross pjgerngross@mac.com
Members	Betsy K. Davis, Lawrence E. Brecht, Gerald Grant
Consultant	Alvin G. Wee

By-Laws

Chair	Harold Kolodney hkolodney@umc.edu
Members	Kirsten McCarville, Ruth Aponte-Wesson, Denise Vey Voda
Consultant	Alvin G. Wee

Corporate Liaison

Chair	Richard C. Cardoso rcardoso@mdanderson.org
Members	Peter J. Gerngross, Mark S. Chambers, Gerald T. Grant, Nicole Bengtsson, Kirsten Friedli
Consultant	Alvin G. Wee

COMMITTEES CONTINUED

EDUCATION

Chair	Theresa M. Hofstede thofstede@mdanderson.org
Members	David J. Reisberg, Joseph DiFazio, John F. Wolfaardt, Arun Sharma, Sarra Cushen
Consultants	Nicole Bengtsson

EDUCATIONAL STANDARDS

Chair	Theresa M. Hofstede thofstede@mdanderson.org
Members	Thomas J. Salinas, Joseph Villalobos, Laleh Abdolazadeh, Jay Jayanetti
Consultant	William Wilson

ETHICS AND MEDICO-LEGAL

Chair	Harold Kolodney hkolodney@umc.edu
Members	Sam Zwetchkenbaum, Mark George, Sudarat Kiat-Amnuay, Todd Lund
Consultant	Jeffery Markt

FEDERAL SERVICES

Chair	Anton Petrich tonypetrich@hotmail.com
Members	Peter J. Gerngross, Cynthia Aita-Holmes, Laleh Abdolazadeh, Sarra Cushen, Kelley Tomsett
Consultant	Villa Guillory

FELLOWSHIP

Chair	James A. Kelly jak52937@creighton.edu
Members	Gerald T. Grant, David J. Reisberg, Richard Cardoso, Betsy K. Davis
Consultant	Thomas Salinas

HISTORICAL AND ARCHIVES

Chair	Paul R. David paul134@cox.net
Members	Mark T. Marunick, Henry Wu, Mark A. George, Jeffrey E. Rubenstein
Consultant	Gerald Grant

INSURANCE AND ORAL HEALTH

Chair	Betsy K. Davis davisb@musc.edu
Members	Mark T. Marunick, William O. Wilson, Ghassan Sinada, James Piper II
Consultant	Joseph DiFazio

INTERNATIONAL RELATIONS

Chair	Martin Osswald (Canada) martin.osswald@albertahealthservices.ca
Members	Harry Reintsema (Netherlands), Yuka Sumita (Japan), Christine Wallace (Australia), Caroline Nguyen (Canada), Mohamed Elsafi (United States), Paul Cashman (New Zealand), John F. Wolfaardt (Canada)
Consultant	Arun B. Sharma (United States)

INTERNET/HOME PAGE

Chair	Ghassan Sinada gsinada@marylandprostho.com
Members	Anastasia Katsavochristou, Pattii Montgomery, Sursh Nayar, Avinash Bidra
Consultants	Nicole Bengtsson

MEMORIAL

Chair	Lawrence E. Brecht lebrecht@nycpros.com
Members	Betsy K. Davis, Paul R. David, Thomas J. Salinas
Consultants	Alvin G. Wee

NOMINATING

Chair	Peter Gerngross pjgerngross@mac.com
Members	Jeffery C. Markt, William O. Wilson, Sujey Morgan
Consultant	Gerald Grant

PROGRAM COMMITTEE

Chair	Arun Sharma arun.sharma@ucsf.edu
Members	Jeffery C. Markt, Nicole Bengtsson, Kirsten Friedli, Ghassan Sinada, David Reisberg
Consultant	Lawrence Brecht

PUBLIC AND PROFESSIONAL RELATIONS

Chair	Lawrence E. Brecht lebrecht@nycpros.com
Members	Nicole Bengtsson, William O. Wilson, Alan Sutton, Cynthia Aita-Holmes
Consultants	Jeffery Markt

PUBLICATIONS AND NOMENCLATURE

Chair	Arun Sharma arun.sharma@ucsf.edu
Members	Peter J. Gerngross, Christine Wallace, Suresh Nayar, Betsy K. Davis
Consultant	Alvin G. Wee

RESEARCH

Chair	Evan Rosen hurynj@mskcc.org
Members	David J. Reisberg, Sudarat Kiat-Amnuay, Ruth Aponte-Wesson, Tanya Somohano-Marquez
Consultant	Alvin G. Wee

STRATEGIC ALLIANCES

Chair	Gerald Grant makesfaces@me.com
Members	Jonathan Wiens, Harry Reintsema, Alvin Wee, Lawrence E. Brecht, Betsy K. Davis, Peter Gerngross
Consultant	Jeffery Markt

STUDENT MEMBERSHIP

Chair	James Kelly jak52937@creighton.edu
Members	Olivia Muller, Jay Jayanetti, Joseph DiFazio, Evan Rosen, Theresa M. Hofstede
Consultant	Thomas J. Salinas

TIME AND PLACE

Chair	Alvin G. Wee AAMPSecTreasurer@gmail.com
Members	Peter J. Gerngross, Gerald Grant, Nicole Bengtsson
Consultant	Jeffery Markt

INVESTMENT (AD HOC)

Chair	Mark S. Chambers mchamber@mdanderson.org
Members	Thomas J. Salinas, Mark T. Marunick, Joseph Difazio

LIFE FELLOWSHIP (AD HOC)

Chair	Lawrence E. Brecht lebrecht@nycpros.com
Members	Salvatore Esposito, Mark T. Marunick, Mark George, Jonathan Wiens, Stephen Bergen

MEMBERSHIP BENEFITS (AD HOC)

Chair	Lawrence E. Brecht lebrecht@nycpros.com
Members	James A. Kelly, Peter J. Gerngross, Alvin G. Wee, Cynthia Aita-Holmes

Consultant	Thomas J. Salinas

SUBSPECIALTY (AD HOC)

Chair	Betsy K. Davis davisb@musc.edu
Member	Gerald T. Grant, Russell Nishimura
Consultant	Alvin G. Wee

RECIPIENTS OF THE ACKERMAN AWARD

Andrew J. Ackerman, D.D.S.	1961
Mervin C. Cleaver, D.D.S.	1962
Arthur H. Bulbulian, D.D.S.	1964
Joe B. Drane,D.D.S.	1966
Victor J. Niiranen, D.D.S.	1968
Totten S. Malson, D.D.S.	1969
William R. Laney, D.M.D.	1971
I. Kenneth Adisman, D.D.S.	1972
Joseph B. Barron, D.M.D.	1974
Herbert Metz, D.D.S.	1976
Varoujan A. Chalian, D.D.S.	1978
Thomas A. Curtis, D.D.S.	1980
John E. Robinson, Jr., D.D.S.	1981
Arthur O. Rahn, D.D.S.	1982
Sebastian A. Bruno, D.D.S.	1984
Mohammad Mazaheri, D.D.S.	1989
Ronald P. Desjardins, D.M.D.	1991
Norman G. Schaaf, D.D.S.	1994
Richard J. Grisius, D.D.S.	1995
Luis R. Guerra, D.D.S.	1997
Gordon E. King, D.D.S.	1998
*Dorsey J. Moore, D.D.S.	1999
Stephen M. Parel, D.D.S.	2000
James P. Lepley, D.D.S.	2001
Cliff W. Van Blarcom, D.D.S.	2002
Carl J. Anders, D.D.S.	2003
John Beumer III, D.D.S., M.S.	2005
Salvatore J. Esposito, D.M.D.	2007
Thomas R. Cowper, D.D.S.	2008
Jonathan P. Wiens, D.D.S.	2009
Rhonda F. Jacob, D.D.S., M.S., F.A.C.P.	2013
Johan Wolfaardt, BDS, MDent, PhD.	2014
Mark T. Marunick, DDS, MS	2015
Robert M. Taft, D.D.S.	2016
Steven E. Eckert, D.D.S.	2018

PAST ACADEMY PRESIDENTS

*Aeldred C. Fonder, D.D.S.	1953 Chicago, IL
*Robert E. Stewart, D.D.S.	1954 Chicago, IL
*Thomas E. Knox, D.D.S.	1955 Chicago, IL
*Arthur H. Bulbulian, D.D.S.	1956 Chicago, IL
*Arthur H. Bulbulian, D.D.S.	1957 Chicago, IL
*Mervin C. Cleaver, D.D.S.	1958 Dallas, TX
*Joseph B. Barron, D.D.S.	1959 Chicago, IL
*Joseph B. Barron, D.D.S.	1960 Los Angeles, CA
*Benjamin B. Hoffman, D.D.S.	1961 Philadelphia, PA
*Edward J. Fredrickson, D.D.S.	1962 Miami Beach, FL
*Kenneth I. Adisman, D.D.S.	1963 Atlantic City, NJ
*Joe B. Drane, D.D.S.	1964 San Francisco, CA
*Louis J. Boucher, D.D.S.	1965 Las Vegas, NV
*Victor J. Niiranen, D.D.S.	1966 Dallas, TX
*Victor J. Niiranen, D.D.S.	1967 Washington, DC
*Ralph S. Lloyd, D.D.S.	1968 Miami, FL
*Herbert H. Metz, D.D.S.	1969 New York, NY
*Morton S. Rosen, D.D.S.	1970 Las Vegas, NV
*John E. Robinson, D.D.S.	1971 Cherry Hill, NJ
*Thomas A. Curtis, D.D.S.	1972 Las Vegas, NV
*Sebastian A. Bruno, D.D.S.	1973 San Antonio, TX
Varoujan A. Chalian, D.D.S.	1974 Williamsburg, VA
William R. Laney, D.M.D.	1975 Lake Geneva, WS
*James B. Lepley, D.D.S.	1976 San Diego, CA
*Augustus J. Valauri, D.D.S.	1977 Orlando, FL
Arthur O. Rahn, D.D.S.	1978 Las Vegas, NV
*Dorsey J. Moore, D.D.S.	1979 New Orleans, LA
James S. Brudvik, D.D.S.	1980 San Antonio, TX
*Seymour Birnbach, D.D.S.	1981 St. Louis, MO
James W. Schweiger, D.D.S.	1982 Monterey, CA
Norman G. Schaaf, D.D.S.	1983 San Diego, CA
*Verdi F. Carsten, D.D.S.	1984 Nashville, TN
*David N. Firtell, D.D.S.	1985 Seattle, WA
Ronald P. Desjardins, D.M.D.	1986 Williamsburg, VA
Mohammad Mazaheri, D.D.S.	1987 San Diego, CA
Richard J. Grisius, D.D.S.	1988 Baltimore, MD

*Charles C. Swoope, D.D.S.....	1989 Tucson, AZ
Stephen M. Parel, D.D.S.....	1990 Charleston, SC
*Luis R. Guerra, D.D.S.....	1991 Reno, NV
Donald L. Mitchell, D.D.S.....	1992 Tampa, FL
Clifford W. VanBlarcom, D.D.S.....	1993 Palm Springs, CA
Gordon E. King, D.D.S.....	1994 New Orleans, LA
Gregory R. Parr, D.D.S.	1995 Washington, DC
James E. Ryan, D.D.S.....	1996 Kansas City, MO
*Carl J. Andres, D.D.S.....	1997 Orlando, FL
Salvatore J. Esposito, D.M.D.....	1998 Victoria, BC
Timothy R. Saunders, D.D.S.....	1999 Philadelphia, PA
Jonathan P. Wiens, D.D.S.....	2000 Kauai, HI
Alan J. Hickey, D.M.D.....	2001 New Orleans, LA
*Robert E. Gillis Jr., D.M.D, M.S.D.	2002 Orlando, FL
*Thomas R. Cowper, D.D.S.....	2003 Scottsdale, AZ
Mark T. Marunick, D.D.S, M.S.....	2004 Ottawa, Canada
Thomas J. Vergo Jr., D.D.S.....	2005 Los Angeles, CA
Rhonda F. Jacob., D.D.S., M.S.....	2006 Maui, HI
Jeffrey E. Rubenstein, D.M.D, MS..	2007 Scottsdale, AZ
Terry M. Kelly, D.M.D.....	2008 Nashville, TN
*Glenn E. Turner, D.M.D., M.S.D..	2009 San Diego, CA
Steven E. Eckert, D.D.S., M.S.....	2010 Orlando, FL
Robert M. Taft, D. D. S.....	2011 Scottsdale, AZ
Steven P. Haug, D.D.S.....	2012 Baltimore, MD
Lawrence E. Brecht, D.D.S.....	2013 Santa Ana Pueblo, NM
Betsy K. Davis, DMD, MS.....	2014 New Orleans, LA
Mark S. Chambers, DMD, MS.....	2015 Orlando, FL
Gerald T. Grant, D.M.D., M.S.	2016 San Diego, CA
Peter J. Gerngross, D.D.S.	2017 San Francisco, CA

**Denotes Deceased*

We thank all past AAMP Presidents for their dedication and service

2018 AAMP Silent Auction

Be sure to stop by the registration desk to be assigned a bid number in order to participate in this year's silent auction!

Proceeds of the AAMP Silent Auction helps fund future educational and outreach programs.

Your generosity is greatly appreciated.

Saturday, October 27th

07:00 - 16:00	AAMP Officers & Board of Directors Meeting *Officers and Board Members only*
12:00 - 16:00	Exhibit Set-Up
15:30 - 17:30	Industry Session Location: Sienna
16:30	Poster Presentation Set-Up
17:30 - 20:00	Poster Session & Exhibit Reception Location: Cobalt Ballroom

Sunday, October 28th

07:00 - 08:00	Continental Breakfast Location: Cobalt Ballroom
08:00 - 08:15	Welcome Address Location: Grand Ballroom
08:15 - 13:10	General Session Location: Grand Ballroom
13:10 - 14:00	AAMP Networking Luncheon Location: Cobalt Ballroom
13:15 - 14:30	AAMP Business Luncheon *AAMP Members Only* Location: Grand Ballroom
14:00 - 16:30	Workshop #1 (elective) Advanced Technology in Head and Neck Cancer Treatment Location: Sienna
17:00 - 22:00	AAMP Social Outing National Museum of Dentistry Outing & Dinner Meet in Four Seasons Hotel Lobby

Monday, October 29th

07:00 – 08:00	New Student Members Breakfast Location: Marine
07:00 - 08:00	Continental Breakfast Location: Cobalt Ballroom
08:00 - 08:05	Welcome Address Location: Grand Ballroom
08:05 - 13:00	General Session Location: Grand Ballroom
13:30 - 17:00	Workshop #2 (elective) Insurance Workshop Co-Sponsored with MUSC Location: Sienna
19:00 - 20:00	AAMP Happy Hour Reception- For All Silent Auction Closes
19:00 - 22:00	AAMP Presidential Banquet (elective) Location: Grand Ballroom

Tuesday, October 30th

07:15 - 08:00	Continental Breakfast Location: Grand Ballroom
08:00 - 08:10	Welcome Address Location: Grand Ballroom
08:10 - 12:45	General Session Location: Grand Ballroom
14:00 - 16:45	Workshop #3 (elective) Digital Implant Planning for Craniofacial Implants, Digital Colour Matching and use of Magnets Location: Sienna

Saturday, October 27th

07:00 - 16:00	**AAMP Officers & Board of Directors Meeting** *Officers and Board Members only*
12:00 - 16:00	**Exhibit Set-Up**
15:30 - 17:30	**Industry Session**
16:30	**Poster Presentation Set-Up**
17:30 - 20:00	**Poster Session & Exhibit Reception** Location: Cobalt Ballroom

Sunday, October 28th

07:00 - 08:00	**Continental Breakfast** Location: Cobalt Ballroom
08:00 - 08:15	**Welcome Address** Location: Grand Ballroom

Maxillary Reconstruction

Moderator: John Beumer

08:15 - 08:45	**Jay Jayanetti** *Early Palatal Defect Rehabilitation*
08:50 - 09:20	**Suresh Nayar** *Maxillary Reconstruction – "Enter the SDS" (Surgical Design and Simulation)*
09:25 - 09:50	**Dale Howes** *Maxillary Ablation and Implant-Supported Rehabilitation*
09:50 - 10:10	Panel Discussion

10:00 - 10:40 Coffee Break

Moderator: David Reisberg

10:45 - 11:15 **David Eisele**
Management of Saliary Gland Tumors

11:20 - 11:50 **Lee Alkureishi**
The Impact of Virtual Reality (VR) on CranioMaxillofacial Surgery: The Future is Here

11:55 - 12:25 **Alexander Pazoki**
Management of Osteoradionecrosis

12:30 - 13:10 **Benjamin Dyches**
Understanding Legal Tools: The Keys to Lawsuit Prevention

13:10 ***Session Adjourns***

13:10 - 14:00 **AAMP Networking Luncheon**
Location: Cobalt Ballroom

13:15 - 14:30 **AAMP Busines Luncheon**
AAMP Members only
Location: Grand Ballroom

14:00 - 16:30 Workshop #1 (elective)
Advanced Technology in Head and Neck Cancer Treatment
Location: Sienna

17:00 - 22:00 **AAMP Social Outing:**
National Museum of Dentistry Outing & Dinner (elective)
Meet in Four Seasons Hotel Lobby

Monday, October 29th

07:00 – 08:00 **New Student Members Breakfast**
Location: Marine

07:00 - 08:00 **Continental Breakfast**
Location: Cobalt Ballroom

08:00 - 08:05 **Welcome Address**
Location: Grand Ballroom

Facial Prosthetics

Moderator: Jerry Grant

08:05 - 08:35 **Laleh Abdolazadeh**
Soft Tissue Radiation Bolus

08:40 - 09:10 **Travis Bellichi**
Facing the Future: Facial Scanning, Digital Design, and 3D Printing for Maxillofacial Prosthetics

09:15 - 09:40 **Lindsay McHutchion**
Applications of Digital Technology in Facial Prosthetic Treatment Pathways: Tools for Predictable Outcomes

09:45 - 09:55 **Robert G. Greenland**
Oral Health Considerations for Composite Tissue Allografts

10:00 - 10:10 **Kyle Gazdeck**
Computed Tomography Analysis of Reconstructed Mandibles with Fibula Free Flaps

10:10 - 10:40 Coffee Break

Moderator: Mark Chambers

10:40 - 10:50 **Rishabh Acharya**
Tumor-induced Hypophosphatemic Osteomalacia Caused by a Mesenchymal Tumor of the Mandible Managed by a Segmental Mandibulectomy and a Microvascular Reconstruction with a Free Fibula Flap

10:55 - 11:40 **Alice Goodwin**
Stem Cell-based Incisor Renewal

11:45 - 12:30 **Lawrence Brecht**
Cleft Lip & Palate Care in the Digital Revolution Era

12:30 ***Session Adjourns***

13:30 - 17:00 Workshop #2 (elective)
Insurance Workshop Co-Sponsored with MUSC
Location: Sienna

19:00 - 20:00 **AAMP Happy Hour Reception-** For All
Silent Auction Closes
Location: Cobalt Ballroom

19:00 - 22:00 **AAMP Presidential Reception (elective)**
Location: Grand Ballroom

Tuesday, October 30th

07:15 - 08:00 **Continental Breakfast**
Location: Cobalt Ballroom

08:00 - 08:10 **Welcome**
Location: Grand Ballroom

Mandibular Reconstruction

Moderator: Peter Gerngross

08:10 - 08:40 **Evan Rosen & Robert Allen Jr.**
Mandibular Rehabilitation:

The MSK Experience

08:45 - 09:15 **Matthew Hanasono**
Reconstruction of the Jaws:
The MD Anderson Experience

09:20 - 09:50 **Tom Salinas**
Mandibular Reconstruction:
The Mayo Clinic Experience

09:50 - 10:15 **Panel Discussion**

10:15 - 10:45 Coffee Break

Moderator: Betsy K. Davis

10:45 - 11:15 **Theresa Hofstede**
Osteoradionecrosis:
An MD Anderson Experience

11:20 - 11:45 **Russell Wang**
3D printing of Implantable Bone Analogs for Personalized Mandibular Reconstruction

11:45 - 12:15 **David Reisberg**
The Economics of the Digital Revolution

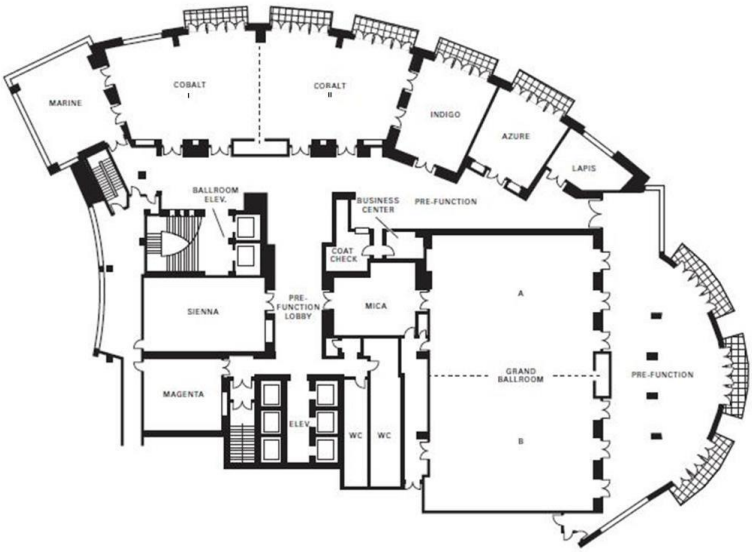
12:15 - 12:30 **Panel Discussion**

12:30 - 12:45 **David Reisberg & Tom Salinas**
2019 Miami – October 26-29, 2019

12:45 ***Session Adjourns***

14:00 - 16:45 Workshop #3 (elective)
Digital Implant Planning for Craniofacial Implants, Digital Colour Matching and Use of Magnets
Location: Sienna

FOUR SEASONS HOTEL FLOORPLAN



2nd Floor

Sunday, October 28th

08:00 - 08:15 **Welcome Address**
Location: Grand Ballroom

Moderator: John Beumer

08:15 - 08:45

Jay Jayanetti
Associate Director of Maxillofacial Prosthetics
UCLA School of Dentistry
Division of Advanced Prosthodontics
Los Angeles, California USA

Advances in Early Palatal Defect Rehabilitation: The UCLA Experience with Zygomatic Implants

Maxillary defects are successfully rehabilitated with obturators when sufficient residual anatomy and dentition can provide retention stability and support. A skin-lined and well tailored defect will further improve obturator function. Large resections that spare little or no denture bearing structures, or conventional implants sites are challenging to rehabilitate; mastication cannot be restored to normal. The utilization of the Zygomatic buttresses as distant bony anchorage is well documented, as are immediate provisionalization of zygomatic implants via the complete denture conversion technique for the intact maxilla.

In a small series, 7 consecutive patients with either exiting defects or planned resections were treated with zygomatic implants and early rehabilitation with implant-connecting bars to retain interim obturators. Twenty-five zygomatic implants were placed by two surgeons. The first patient was rehabilitated with a cast gold bar that required cutting and soldering. The subsequent 6 patients had the fixtures indexed intra-operatively and a CADCAM bar delivered between 9 and 12 days from implant placement to correspond to the Immediate surgical obturator unpacking appointment.

All 7 interim prostheses were retained by one or two Hader clips and patients instructed to maintain a soft diet during the osseointegration period. With up to 30 months follow up and 100% success observed, palatal defect rehabilitation with zygomatic implants permit earlier return to normal swallowing and normal speech. Upon completion of radiotherapy (3 patients) and 4 months from implantation, additional clips are employed and return to normal diet is resumed. Surveillance for tumor recurrence is unhindered for direct visual and manual inspection.

Progress is being made to incorporate bone level guides and navigation surgery to improve fixture placement. In-house milling machines has accelerated the fabrication of the CADCAM bar. Intra-operative digital impressions have not been attempted.

08:50 - 09:20 **Suresh Nayar**
Associate Professor
University of Alberta
Maxillofacial Prosthodontist
Institute for Reconstructive Sciences in Medicine (iRSM)
Alberta, Canada

Maxillary Reconstruction – "Enter the SDS" (Surgical Design and Simulation)

Maxillary defects due to head and neck cancer treatment leaves behind a trail of anatomic, functional and psychological deficiencies. Management of these defects includes prosthetic or surgical closure. With prosthetic obturation, it does permit monitoring the surgical site; however, the patient is always reminded of the defect and the history of the disease. Surgical closure with a soft tissue, although feasible and preferable in a small defect, does compromise prosthetic rehabilitation in a large defect due to poor prosthetic support. In a larger defect, the use of bone containing microvascular flap transfer techniques has significantly improved jaw reconstruction in head and neck oncology. However, functional oral rehabilitation with osseointegrated implants is challenging due to issues in achieving accurate osteotomy and optimal insertion and positioning of the bone flaps.

At the Institute for Reconstructive Sciences in Medicine (iRSM), Edmonton, Canada, challenges consisted of not only accuracy of the bone flaps but also the time scales leading up to oral rehabilitation for these patients which could extend from 3 – 5 years or more. The advent of advanced digital technologies and surgical design and simulation that can be used to plan the reconstructions has allowed the surgery to be raised to new levels of precision and accuracy. This has led to combining the resection, reconstruction and rehabilitation pathway in head and neck oncology and has resulted in significant reduction in oral rehabilitation times ranging from 6-12 months for benign conditions to 12-18 months for malignant diseases. Observational studies have also revealed that there are other improvements in function as well.

To achieve this level of sophistication, along with the convergence of various technologies, it is important that the planning and management is carried out by a team of specialists in various fields including Maxillofacial Prosthodontics, Head and Neck Surgery, Surgical Design and Simulation, Dental Lab Technology among others. With this presentation, I am hoping to share with the members and guests of the Academy, the use of surgical design and simulation in advanced jaw reconstruction by such a team at iRSM, with its attendant improvements in function and management time scales.

09:20 - 09:50

Dale Howes
HOD: Oral Rehabilitation
Health Sciences
University of the Witwatersrand
Johannesburg, South Africa

Maxillary Ablation and Implant Supported Rehabilitation

WHO statistics show that Head and Neck tumours carry similar incidence but greater mortality than breast cancer. In addition, it can be argued that these tumours carry the greatest morbidity as they easily affect swallowing and the five senses of touch, taste, smell, speech and sight that define human quality of life.

One of the most morbid of procedures is tumour ablation of the maxilla which leaves debilitating palatomaxillary defects including oro-antral, and oronasal comminications severely affecting speech, mastication and deglutition.

The rehabilitative objectives are to replace the anatomical barriers to restore functional outcomes. A number of treatment alternatives have been developed over decades from pure prosthetic obturation to surgical bone containing microvascular free flaps.

The concepts of osseointegration as developed by P-I Bránemark from the 1960's has significantly improved functional outcomes in such cases.
We have expanded on some of these concepts developing custom and angulated oncology as well as standard implants which have significantly helped overcome the anatomical constraints of the residual and grafted bone. These protocols and hardware developments have reduced costs and treatment time of such maxillary rehabilitation, especially when used in conjunction with advanced conservative surgical techniques.

This lecture will outline the challenges of maxillary ablation and offer cost effective treatment alternatives maintaining treatment outcomes.

09:50-10:10 Panel Discussion

10:10 - 10:40 A.M. Coffee Break (Exhibit Review)

Moderator: David Reisberg

10:40 - 11:15 **David Eisele**

Andelot Professor, Director of the Department of
Otolaryngology, Head and Neck Surgery
Johns Hopkins University School of Medicine
Baltimore, Maryland USA

Surgical Management of Salivary Gland Neoplasms

Salivary gland neoplasms represent a diverse group of neoplasms, benign and malignant, of varied clinical behavior. They may arise from the major salivary glands, parotid and submandibular, as well as the

sublingual and minor salivary glands. Optimal treatment and follow-up requires a multidisciplinary team with a full range of specialists and support services with expertise in the management of these neoplasms Surgery is the primary therapy and complete surgical resection of primary tumor is the operative goal. The extent of surgery is tailored for the individual patient. Adjuvant radiation therapy is recommended for select patients.

11:20 - 11:50 **Lee Alkureishi**

Clinical Assistant Professor of Plastic Surgery
University of Illinois Chicago
Pediatric Plastic and Craniofacial Surgeon
Shriners Hospitals for Children Chicago
Chicago, Illinois USA

The Impact of Virtual Reality (VR) on CranioMaxillofacial Surgery: The Future is Here

For nearly half-a-century, reconstructing patients with craniofacial deformities has relied primarily on two-dimensional photographic images and radiographs. It was the surgeon's eye and experience that integrated the two-dimensional records to generate the virtual three-dimensional image for surgical planning. In the last decade of the twentieth century, multi-dimensional visualization of the skeletal deformity became possible with the emergence of computerized tomography (CT). This allowed the surgeon the ability to visualize the complexity of the deformity but not the ability to simulate surgery.

It is only within the last several years that rapid advances in computational software began to transform the pure visual imagery of CT to allow the surgical simulation to become a reality. Today surgeons are beginning to have the tools to simulate various craniofacial skeletal osteotomy patterns and the ability to manipulate each of the bony elements. However, the limitation of true simulation has always been the inability to fully visualize the third dimension on two-dimensional flat screen displays. Thus, surgeons relied on 3D printed models for tactile feedback and to visualize depth. With the recent introduction of immersive virtual reality, augmented reality and haptic feedback, true three-dimensional surgical simulation becomes a possibility.

This discussion will introduce the audience to currently accessible technology for the practicing surgeon through a series of cases studies for patients who required various components of craniofacial surgery. This will include pre- and post-processing of diagnostic 3D surface and skeletal records; integrated orthodontic-surgical planning, 3D relevant software for both orthodontic and skeletal manipulation, translation from virtual to physical environment with CAD/CAM 3D printed models and guides. This presentation will introduce the use of immersive virtual reality environment as a tool for resident training to patient-specific planning for the practicing surgeon.

11:55 - 12:25 **Alexander Pazoki**

Dept. Otolaryngology- Head and Neck Surgery
Assistant Professor/ Director
Division Oral & MaxilloFacial Surgery/Den
Johns Hopkins Medical Institutions
Baltimore, Maryland USA

Management of Osteoradionecrosis

Osteoradionecrosis (ORN) of the jaws is one of the most severe side effect of radiation therapy for treatment of the head and neck cancer patients. ORN develops as irradiation diminishes the bone's ability to withstand trauma and avoid infection, and it can be facilitated by poor nutrition, hygiene and other risk factors. This process may be spontaneous or result from trauma. This condition along with other complications related to radiation side effect such as Trismus could provide a complex set of problems regarding the reconstruction and restorative procedures as well as quality of life issues for our oral and head and neck cancer patients. When Osteoradionecrosis develops, tissue destruction devolves into breakdown of overlying tissues and symptomatic destruction of bone, infection and further complications including pathological fractures may occur. Various theories have been described in the past including decreased vascularity and fibrosis contributing to development of ORN have been proposed. We will review current and previous approaches to management of ORN.

12:30-13:10 **Benjamin Dyches**

Legally Mine
Provo, Utah USA

Understanding Legal Tools: The Keys to Lawsuit Prevention

Victimization is an epidemic in the USA today and through lawsuits, being a victim can be very rewarding. The problem is that you are more than likely the target of these lawsuits making you a victim without wanting it. This lecture will show you how to use the law in your favor and turn the table on would be litigants. Lawyers won't walk away from you they will run. Another serious issue faced by physicians in the USA is an ever-increasing tax burden. Unknowingly many physicians are overpaying their taxes because they are unaware of many of the deductions available. With this course you will discover legitimate tax deductions that have proven track records and can put thousands of extra dollars in your pocket every year.

Monday, October 29th

07:00-08:00 **New Members Breakfast**
Location: Marine

07:00-08:00 **Continental Breakfast**
Location: Cobalt Ballroom

08:00 - 08:05 **Welcome**
Location: Grand Ballroom

Moderator: Jerry Grant

08:05 - 08:35 **Laleh Abdolazadeh**
Department Chairman, Program Director Maxillofacial Prosthetics
Naval Postgraduate Dental School
Bethesda, Maryland USA

Soft Tissue Radiation Bolus

Beam modification is often necessary in radiation therapy and is defined as desirable modification in the spatial distribution of radiation within the patient. This is accomplished by way of insertion of any material in the beam path. There are four types of beam modification: shielding, compensation, wedge filtration and flattening. A tissue bolus, is a flattening beam modifier, and is often used to accommodate irregular topography, tissue inhomogeneity, and variations in planned target volume depths. The tissue bolus aids in achieving desired dose distributions by reducing the depth of the maximum dose, evening out skin surface contours, and mobilizing the buildup zone near the skin for superficial lesions. Commercially available stock boluses are flat, and often lack intimate contact with body surfaces resulting in a discrepancy between the planned and delivered dose. Custom boluses for head and neck radiation treatments have historically been fabricated utilizing paraffin based materials and conventional impression making procedures. These procedures can be uncomfortable to the patient both physically and psychologically, as well as time consuming for the provider. The utilization of digital technologies at the Naval Postgraduate Dental School, Bethesda, MD in

fabrication of custom tissue boluses for irregular and hard to reach surfaces will be presented. Various additive manufacturing technologies and materials will also be presented as potential options to traditional materials and methods of custom tissue bolus fabrication.

08:40 - 09:10 **Travis Bellichi**
Maxillofacial Prosthodontic Fellow
Indiana University Health
United States Air Force
Indianapolis, Indiana USA

Facing the Future: Facial Scanning, Digital Design, and 3D Printing for Maxillofacial Prosthetics

Maxillofacial prosthetics may benefit from a digital workflow that includes facial scanning, computer-assisted design, and rapid prototyping. This digital workflow enables the Maxillofacial Prosthodontist a high level of precision, accuracy, and control during the impression, virtual modeling, mold making, and silicone prosthesis fabrication. In addition, the digital workflow provides opportunities for patient education and participation in prosthetic design as well as improved communication with the surgical team. Emerging technologies in photogrammetry, computational hydrographic printing, rapid prototyping materials / hardware, and virtual / augmented reality will empower the Maxillofacial Prosthodontist to deliver exceptional results for our prosthetic patients. This lecture will review the literature on digital technology in maxillofacial prosthetics, discuss a Prosthodontic Resident's experience developing a digital workflow at Indiana University, and explore potential applications of emerging technologies for maxillofacial prosthetics.

Objectives:

1. Review literature on digital design in maxillofacial prosthetics.
2. Describe facial scanning technology including 3D stereophotogrammetry, 3D structured light, and laser scanning.
3. Describe digital design software and hardware.
4. Describe rapid prototyping technology including fused deposition modeling, PolyJet, and stereolithography.

5. Describe emerging technology including computational hydrographic printing, continuous liquid interface production, free-form modeling / design evaluation in virtual and augmented reality.

09:15 - 09:40 **Lindsay McHutchion**
Anaplastologist
Institute for Reconstructive Sciences in Medicine
Edmonton, Alberta

Applications of Digital Technology in Facial Prosthetic Treatment Pathways: Tools for Predictable Outcomes

Digital technology has been a tool in the treatment of patients requiring facial prostheses for many years. As these technologies have developed they have changed the way facial prostheses are designed and created, allowing for novel ways of addressing prosthetic challenges. The examples presented will illustrate how digital tools are routinely applied in the treatment of patients with facial prostheses at the Institute for Reconstructive Sciences in Medicine, enhancing planning and leading to more predictable prosthetic outcomes. Successes and challenges arising from the use of a hybrid pathway employing both digital and analog techniques will be discussed.

09:45 - 09:55 **Robert G. Greenland**
Advanced Prosthodontic Resident
Professor, Division of Prosthetic & Esthetic Dentistry
Rochester, Minnesota USA

Oral Health Considerations for Composite Tissue Allografts

Composite tissue allografts are becoming a realistic treatment option for reconstruction of extensive defects related to the facial complex. This patient population requires strict dental management and hygiene treatment to ensure proper maintenance to reduce possible complications such as immunological challenges, CTA rejection, periodontal loss, caries, and occlusal rehabilitation. This case presentation offers a review of the care practices currently in place within this patient pool at Mayo Clinic.

10:00 – 10:10 **Kyle Gazdeck**

Department of Prosthodontics
University of North Carolina
Chapel Hill School of Dentistry
Durham, North Carolina USA

Computed Tomography Analysis of Reconstructed Mandibles with Fibula Free Flaps

There is a paucity of information on the anatomical geometry of mandibular fibula free flap reconstructions in vivo. Ninety-four mandibular osteocutaneous fibula free flap reconstructions were retrospectively analyzed using computed tomography. Cross sections of fibula segments were measured and classified based on morphology, vertical/horizontal dimensions, and density. This data provides insight into the anatomical geometry of reconstructed mandibular arches with the fibula free flap and potential considerations for implant planning and placement.

10:10 - 10:40 Coffee Break

Moderator: Mark Chambers

10:40 - 10:50 **Rishabh Acharya**

Graduate Fellow, Section of Oral Oncology and Maxillofacial Prosthetics, Department of Head and Neck Surgery, UT MD Anderson Cancer Center
Houston, Texas

Tumor-induced Hypophosphatemic Osteomalacia Caused by a Mesenchymal Tumor of the Mandible Managed by a Segmental Mandibulectomy and a Microvascular Reconstruction with a Free Fibula Flap

Tumor-induced osteomalacia (TIO) is a rare paraneoplastic syndrome in which patients present with hypophosphatemia and osteomalacia with clinical features that include bone pain, fractures and muscle weakness. The etiology is high levels of phosphate and vitamin D-regulating hormone, fibroblast growth factor 23 (FGF23). In TIO, FGF23

can be secreted by a variety of tumors, most commonly mesenchymal tumors that are typically small and difficult to locate. FGF23 acts primarily at the renal tubules and impairs phosphate resorption, leading to hypophosphatemia that inhibits the 1-alpha hydroxylase. To date, less than 310 cases of TIO have been reported and involvement of the mandible is exceptionally rare with only 8 reported cases. A 42-year-old male presented to our Institution with a 1-year history of pain in his ribs, hips, lower back, and feet. Radiologic examination revealed a decrease in bone density (spine T-score of - 4) and multiple pathologic fractures of the femur, ilium, and trochanter. Laboratory evaluation showed hypophosphatemia (1.6, normal 2.5 – 4.5 mg/dl), a tubular reabsorption of phosphate of 61% (normal 85-94%), and an elevated FGF23 (322, normal <180). Imaging and physical examination identified 3 potential sites: mandibular right first molar region; a cystic area in the left posterior cervical region; and a small nodule of right epididymis. A PET/CT (F-18 fluorodeoxyglucose) scan showed increased uptake in the mandibular right first molar region, where the patient had had a recent molar extraction. Intra-oral examination revealed no striking evidence of infection or mass. A CT scan showed an enhancing lytic expansile lesion. A deep bone biopsy was positive for mixed connective tissue tumor with spindle cell proliferation and scattered giant cells, with no identifiable malignant features. A surgical resection included a right segmental mandibulectomy, right neck dissection and tracheostomy followed by microvascular reconstruction. The final histopathology revealed no malignant features and completeness of the resection was confirmed by normalization of serum phosphate and an increase in serum 1,25 dihydroxy vitamin D3 from 27 (prior to surgery) to 366 pg/ml (normal 18-64 pg/ml) postoperatively.
In conclusion, successful management of this debilitating condition required complete resection of the tumor followed by reconstructive surgery.

10:55 - 11:40 **Alice Goodwin**

Assistant Professor
Division of Craniofacial Anomalies
Department of Orofacial Sciences
University of California San Francisco
San Francisco, California USA

Ras Signaling in Tooth Development and Regeneration

A critical goal for the field of dentistry is to develop improved methods to replace missing teeth. Much knowledge has been gained by studying the signaling pathways involved in tooth development in mice as well as regulation of the adult stem cell populations in the mouse incisor, and this knowledge will add to the foundation upon which technologies to bioengineer teeth will be built. This talk will focus on the role of the Ras signaling pathway in tooth development and regeneration. The Ras pathway and its downstream effectors, mitogen-activated protein kinase (MAPK)/Raf/MEK/ERK and PI3K/AKT, is an essential signaling cascade that regulates cell proliferation, differentiation, and survival. To understand the role of Ras signaling in craniofacial and dental development, we studied Costello syndrome (CS), a rare congenital disorder characterized by cardiac, musculoskeletal, and dermatologic abnormalities, and cognitive impairment and caused by activating mutations in HRAS, in individuals with CS and a CS mouse model. We found that CS individuals had distinct facial features and characteristic malocclusion including class III malocclusion, open bite, and posterior crossbite. Additionally, CS individuals had a striking enamel defect characterized by hypomineralized white spot lesions and striations and overall thinning of the enamel. We further studied the enamel phenotype in the CS mouse model and found that the enamel was hypoplastic due to hyperproliferation and disorganization of the ameloblasts. Furthermore, in the adult mouse incisor, the enamel defect was rescued by inhibiting the MAPK pathway, but not the PI3K pathway, indicating that Ras signaling negatively regulates enamel formation primarily through the MAPK pathway. We further explored the role of Ras in regulating the progenitor cells in the continuously growing mouse incisor. We found that MAPK signaling regulates dental epithelial stem cell differentiation and transit amplifying cell proliferation in the mouse incisor, and pERK levels must be finely tuned

in the ameloblasts to form proper incisor enamel. Thus, this work furthers our understanding of Ras signaling in amelogenesis and progenitor cell regulation in the mouse incisor, adding to the foundation of knowledge upon which future regenerative therapies in the craniofacial complex will be based.

11:45 - 12:30 **Lawrence Brecht**

Institute of Reconstructive Plastic Surgery
Department of Plastic Surgery
New York University-Langone Medical Center
Jonathan & Maxine Ferencz Advanced Education Program in Prosthodontics
New York University College of Dentistry
New York, NY, USA

Cleft Lip & Palate Care in the Digital Revolution Era

Digital technology has penetrated every aspect of dentistry, to the point where is it common place and consider to be "routine" in day-to-day practice. Perhaps no other area of dentistry is at the forefront of the development and implementation of digital workflows than prosthodontics and maxillofacial prosthetics in particular. Yet, within our field of maxillofacial prosthetics, digital technologies have had relatively little penetrance into our care of the patient with a cleft lip and/or palate. This presentation will review the current work in the digital arena regarding cleft care with an emphasis on early cleft management as well as future directions the technology will likely take.

Learning Objectives:

1. Understand the current role of digital technology in early cleft care in infants.
2. Understand the current role of digital technology in adult patients with a cleft.
3. Understand the future trends in digital technology as it relates to cleft palate care.

Tuesday, October 30th

07:15 - 08:00 **Continental Breakfast**
Location: Cobalt Ballroom

08:00 - 08:10 **Welcome**
Location: Grand Ballroom

Moderator: Peter Gerngross

08:10 - 08:40 **Evan Rosen**
Assistant Attending, Dental Service
Memorial Sloan Kettering Cancer Center
New York, New York USA

Robert Allen Jr.
Memorial Sloan Kettering Cancer Center
Plastic & Reconstructive Surgery
Department of Surgery
New York, New York USA

Mandibular Rehabilitation: The MSK Experience

Full dental rehabilitation following segmental mandibulectomy or maxillectomy for oncologic tumor ablation should be the goal for every patient. But despite advances in technology and reconstructive techniques, many patients do not achieve timely or complete oral rehabilitation. Recognizing this fault, we recently adopted an innovative workflow to increase the number of patients undergoing dental restoration, irrespective of tumor pathology or need for adjuvant radiotherapy. Preoperatively, every osseous jaw reconstruction undergoes virtual surgical planning to incorporate the placement of endosseous implants into the fibula osteocutaneous free flap. The dental implants are then placed intraoperatively at the time of tumor ablation and reconstruction. Four-to-six weeks following the initial surgery, the patient returns to the operating room for vestibuloplasty and exposure of the dental implants. Within 3 days of the vestibuloplasty, a temporary dental prosthesis is placed in the dental clinic, and the patient can then begin radiation therapy if needed. Following adjuvant radiation therapy, the temporary

prosthesis can be replaced with a permanent one. At our institution, this innovative workflow has allowed for earlier aesthetic restoration of the jaw and greatly expanded the number of patients able to achieve oral rehabilitation following oncologic tumor ablation. The aim of this presentation is to describe our integrated treatment approach and to share the surgical and restorative principles for expedited oral rehabilitation in this patient population.

Matthew Hanasono

08:45 - 09:15 Professor and Reconstructive Microsurgery Fellowship Program Director
Department of Plastic Surgery
The University of Texas MD Anderson Cancer Center
Houston, Texas USA

Reconstruction of the Jaws: The MD Anderson Experience

In recent years, composite tissue reconstruction using vascularized osteocutaneous flaps have become the gold standard for reconstruction of sizable mandibular and maxillary oncologic and traumatic defects. In this presentation, we will discuss the tenets of mandibular and maxillary microvascular free flap reconstruction. A basic overview of fibula free flap surgery in particular will be provided as well as what we, as reconstructive plastic surgeons, look for in the preoperative evaluation. Outcomes following endosteal implant placement for dental restoration will be presented. The role of computer-aided design and computer-aided manufacturing (CAD/CAM) of three-dimensional models in both fibula free flap surgery and endosteal implant placement will be discussed.

09:20 - 09:50 **Tom Salinas**

Professor of Dentistry
Mayo Clinic
Department of Dental Specialties
Rochester, Minnesota USA

Mandibular Reconstruction: The Mayo Clinic Experience

Patients with maxillofacial defects present with unique circumstances that pose challenges with regard to reconstruction. The complex anatomy and physiology of the head and neck premise the need for the use of planning to achieve proper spatial relationships based on physiology and biomechanics. A clinical outcome comparison will survey the use of digital planning to that of traditional techniques in these complex cases.

Objectives:
At the conclusion of the lecture, the participant will be able to;

1. Identify factors that are integral to reconstruction of the maxilla and mandible based on biomechanic/physiologic need.
2. Understand the rationale and advantages of using 3-dimensional virtual planning for reconstruction of maxillary and mandibular osseous defects.
3. Understand the steps needed for imaging and spatial requirements to create surgical guides and specific products that facilitate maxillofacial reconstruction.
4. Compare the advantages in using 3-dimensional reconstructive planning over traditional techniques for optimal outcomes.

09:50 - 10:15 **Panel Discussion**

10:15 - 10:45 Coffee Break

Moderator: Betsy K. Davis

10:45 - 11:15 **Theresa Hofstede**

Associate Professor
Oral Oncology and Maxillofacial Prosthodontics
Department of Head and Neck Surgery
University of Texas MD Anderson Cancer Center
Houston, TX, USA

Osteoradionecrosis: An MD Anderson Experience

Osteoradionecrosis (ORN) of the maxillae and mandible is a well-documented complication of radiation therapy (RT) for head and neck cancer. Its longitudinal effects can result in devitalized and exposed bone through overlying skin or mucosa. There are numerous hypotheses describing the underlying pathogenesis of ORN, although the pathophysiology remains incompletely defined: an older theory of non-healing wound secondary to metabolic and homeostasis disturbance results in ORN occurring via a fibro-atrophic mechanism that involves a complex interaction between tissue ischemia, free radical formation, endothelial dysfunction, vascular thrombosis, inflammation, fibrosis, and finally tissue necrosis; a more current theory that genomic background and oxidative stress response contributes to patient-specific radiosensitivity and normal tissue damage caused by RT, which may be predicted by biomarker analysis (e.g., single-nucleotide polymorphisms). The incidence of ORN in mandibular bone ranges between 2.6-15%, but there is data suggesting that the ORN incidence after RT remains elevated, despite advances in targeting radiation dose. Additionally, with the rise in incidence of human papilloma virus (HPV) -associated oropharyngeal carcinoma, the overall improved patient survival following RT increases the lifetime risk for those patients developing normal tissue toxicities such as ORN. Treatment ranges from local debridement and sequestrectomy in mild cases to large resections and microvascular reconstructive surgery in severe cases. This presentation will include data regarding: (a) incidence of ORN through multivariate analysis comparing oral cavity radiation doses between ORN and ORN-free patients (using detailed radiation treatment plans for ORN cases and matched controls) in a large-volume practice at a comprehensive

cancer center; (b) analysis of dosimetric parameters associated with ORN in oropharyngeal cancer (OPC) patients in the intensity-modulated radiation (IMRT) versus proton therapy (IMPT) era; and (c) introduction of a novel trial assessing dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) to assess the natural history of mandible exposure to RT and subsequent development of ORN by determining the feasibility and predictive utility of using serial acquisition of MRI-based biomarkers for assessment of early, intermediate, and late radiotherapy-attributable physiologic alteration of mandibular bone and the kinetics thereof.

11:20 - 11:45 **Russell Wang**

Associate Professor
Case Western Reserve University
School of Dental Medicine
Cleveland, Ohio USA

3D Printing of Implantable Bone Analogs for Personalized Mandibular Reconstruction

Surgical resection of jawbones often is necessary in treatment of head and neck tumors, infections and trauma. Limitations of conventional particulate or fibula bone grafts for reconstructing those critical-size defects will be discussed. Complications of prosthetic treatment will be presented. Alloplasts have been well documented for craniofacial reconstructions. We print bone analogs based on CBCT images. A bone analog can be customized to fit a surgical site and with innovative internal designs based on topological optimization. We use finite element analysis (FEA) on 3D mandibular models with established loading conditions and boundaries to analyze fracture threshold of individual bone analogs. FEA as well as experimental tests are also used to evaluate the stability and mechanical strength at the interface between native bone/bone analogs. Discussion will also focus on future prosthetic treatment directions.

11:45 - 12:15 **David Reisberg**

The Craniofacial Center
The University of Illinois Hospital
and Health Sciences System
Chicago, Illnois USA

The Digital Revolution in Maxillofacial Prosthetics: Is There A Price to Be Paid?

Digital technology is everywhere. It permeates all phases of our lives; both personal and professional. It is playing an ever-increasing role in maxillofacial prosthetics, making all of us more efficient and effective in providing a higher level of care for our patients. Fortunately, as we integrate this technology into our practices and make this move to a digital world it has been a perfectly smooth transition…NOT.

This presentation will illustrate the many positive aspects of digital technology. It will then address the challenges we face as we embrace this revolution in the world of maxillofacial prosthetics. It will conclude by offering some realistic solutions to these challenges so we all may move ahead and prosper in this ever-evolving landscape.

At the end of this presentation the attendee should be able to identify the many applications of digital technology in maxillofacial prosthetics, be aware of the difficulties we face engaging the digital world, and ways to address these problems.
This presentation is supposed to shed the lights on some of the clinical cases that have been managed by maxillofacial prosthetic service in the eastern province of the Kingdom of Saudi Arabia and the neighboring Arabian Gulf States.

Save The Date!

66th Annual Meeting of the AAMP

October 26-29, 2019
Eden Roc Miami Beach
Miami Beach, Florida USA

for more information, please visit…
www.maxillofacialprosthetics.org

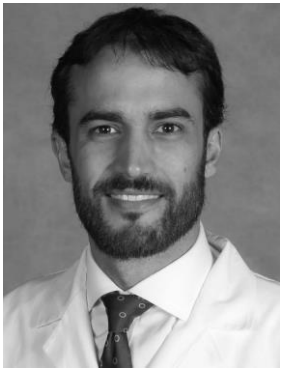
ADA C·E·R·P® | Continuing Education Recognition Program

The American Academy of Maxillofacial Prosthetics (AAMP) is an ADA CERP recognized provider. The ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. Concerns or complaints about a CE provider may be directed to the provider or to the **Commission for Continuing Education Provider Recognition** at ADA.org/CERP.

Attendees are cautioned regarding the risks of using limited knowledge when incorporating into their practices techniques and procedures illustrated, discussed, or demonstrated during any American Academy of Maxillofacial Prosthetics conferences.

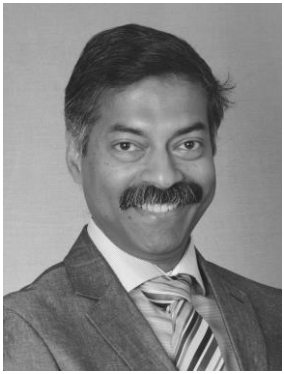
SPEAKER BIOGRAPHIES
IN ORDER OF APPEARANCE ON THE PROGRAM

Sunday, October 28th



Jay Jayanetti, DDS
Associate Director of Maxillofacial Prosthetics
UCLA School of Dentistry
Division of Advanced Prosthodontics
Los Angeles, California USA

Jay Jayanetti, D.D.S., received his dental degree and prosthodontic certificate from UCSF. After a year of teaching at both UCSF and UOP he subsequently completed his Maxillofacial fellowship at UAB. He joined the faculty at LSU in 2012 as the clinic director of predoctoral removable prosthodontics, authoring several laboratory and clinical manuals in the same discipline. He joined the dental school faculty in April of 2015 as the Co-director of the Maxillofacial Prosthetics Fellowship. He maintains a private practice almost entirely devoted to maxillofacial rehabilitation at UCLA. He has contributed to book chapters in Maxillofacial prosthodontist, Removable prosthodontics and Implant dentistry.



Suresh Nayar, BDS, MDS, MFDSRCS, MRDRCS, MRDRCPS, FDS (Rest Dent) RCS, MPhil
Associate Professor
University of Alberta
Maxillofacial Prosthodontist
Institute for Reconstructive Sciences in Medicine (iRSM)
Alberta, Canada

Dr Nayar is an Associate Professor at the University of Alberta and Maxillofacial Prosthodontist at the Institute for Reconstructive Sciences in Medicine (iRSM), Canada since July 2013. He is an Adjunct Associate Professor with the Faculty of Rehabilitation Medicine at the University of Alberta.

He obtained his BDS and MDS(Pros) in India. He obtained further specialist training in the United Kingdom where he was awarded Prosthodontic Specialty Memberships from the Royal Colleges in Edinburgh (MRDRCS) and Glasgow (MRDRCPS) in 2007 and Fellowship of the Royal College of Surgeons of England (FDS (Rest.Dent)RCS) in 2008. He completed a Research Master of Philosophy (MPhil) degree that was awarded in 2012.

His current research interest includes patient reported outcome measures and improving quality of life in head and neck cancer patients, methods to reduce the effects of radiotherapy on head and neck cancer patients, and development of a digital impression technique, among others.

Dale Geoffrey Howes, B.Sc. (Dent); BDS; M.Dent (Wits); FCD (SA) Pros; FICD
HOD: Oral Rehabilitation
Health Sciences
University of the Witwatersrand
Johannesburg, South Africa

Dale Howes is the Professor and Head of the Department of Oral Rehabilitation at the University of the Witwatersrand and in part time private prosthodontic practice at Morningside MediClinic, Johannesburg, South Africa.

He is the Immediate Past President of the ISMR (International Society for Maxillofacial Rehabilitation), board member and Treasurer of the ICP (International College of Prosthodontists), invited fellow of the International academy for Oral and Facial Rehabilitation (IAOFR) and served on the North American working group for Advanced Digital Technology in Craniofacial Reconstruction.

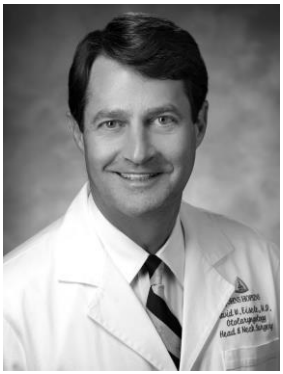
He has received peer review fellowships from the Colleges of Medicine of South Africa and the International College of Dentists serving as the regional Vice Regent. He is a past president of the Academy of Prosthodontics of South Africa, and founder member of the P-I Brånemark Institute of South Africa as well as the Face Value Foundation Trust, a Public Benefit Organisation. This PBO is dedicated to enhancing head and neck treatment and rehabilitation through comprehensive multidisciplinary care, research and education.

He was also awarded the Premier Award of the South African Dental Association (2016) and the I.Y. Sendulskogo Commemorative Medal of the Russian Partnership of Head and Neck Oncology Specialists for outstanding achievements in medicine. (2015). He has Awarded Best Presentations at the Nobel Biocare World Congress 2005 and the

Academy of Osseointegration Boston 2008.

He has / is supervising master's and PhD projects, been external examiner nationally and internationally as well as publishing research and book chapters in fields including head and neck cancer rehabilitation, occlusion and biomechanics.

He has developed innovative implant fixtures, components and protocols to solve hard and soft tissue constraints facilitating screw retained implant prostheses optimising patient management in the regular implant patient as well as for the patient compromised by head and neck trauma and cancer.



David Eisele
Andelot Professor, Director of the Department of Otolaryngology, Head and Neck Surgery
Johns Hopkins University School of Medicine
Baltimore, Maryland USA

Dr. David W. Eisele is the Andelot Professor and Director of the Department of Otolaryngology – Head and Neck Surgery at Johns Hopkins University School of Medicine in Baltimore, Maryland.

Dr. Eisele is from Clearwater, Florida. He attended Dartmouth College and graduated from Cornell University Medical College. He completed residency training in otolaryngology – head and neck surgery at the University of Washington. Following his residency training in 1988, Dr. Eisele joined the faculty at Johns Hopkins University School of Medicine where he eventually became Professor of Otolaryngology, Professor of Oncology, and Professor of Anesthesiology and Critical Care Medicine. He was the founding Director of the Johns Hopkins Head and Neck Cancer Center and served as Director of the Division of Head and Neck Surgery.
In 2001, Dr. Eisele joined the faculty at the University of California, San

Francisco as Professor and Chairman of the Department of Otolaryngology - Head and Neck Surgery. At UCSF he was the Irwin Mark Jacobs and Joan Klein Jacobs Endowed Chair in Head and Neck Cancer and directed the Head and Neck Oncology Program at the UCSF Comprehensive Cancer Center. He also served as President of the UCSF Medical Staff. In 2102, he returned to Johns Hopkins in his present role.
Dr. Eisele is a Director and President-elect of the American Board of Otolaryngology and a member of the NCCN Head and Neck Cancer Panel. He has served as a member of the Residency Review Committee for Otolaryngology, as Chair of the Advisory Council for Otolaryngology - Head and Neck Surgery for the American College of Surgeons, President of the American Head and Neck Society, and as Vice-President of the Triological Society. He served as President of the Maryland Society of Otolaryngology and is a former Governor of the American College of Surgeons.

Dr. Eisele's clinical interests include benign and malignant tumors of the head and neck, with special interest in salivary gland neoplasms. His research interests have included functional stimulation of the upper airway for obstructive sleep apnea, electrophysiological nerve monitoring during head and neck surgery, dysphagia, head and neck cancer treatment outcomes, and minimally invasive salivary gland surgery. Dr. Eisele has three daughters, Leigh, Lauren, and Mariel, and is married to Janice J. Eisele, Senior Vice President for Development at the University of Maryland Medical Center.

Lee Alkureishi, MD
Clinical Assistant Professor of Plastic Surgery
University of Illinois Chicago
Pediatric Plastic and Craniofacial Surgeon
Shriners Hospitals for Children Chicago
Chicago, Illinois USA

Lee Alkureishi, MD, serves as Clinical Assistant Professor of Plastic

Surgery at the University of Illinois Chicago, and as Pediatric Plastic and Craniofacial surgeon at Shriners hospitals for Children - Chicago. He is involved in the training of medical students, residents and fellows on all aspects of plastic surgery. He has published many peer-reviewed articles in the fields of sentinel node biopsy, head and neck cancer and cancer reconstruction, and is the author of several book chapters on these subjects and others. He has presented the results of his work at various national and international meetings. His current research interests include virtual reality surgical simulation and surgical planning, manufacturing in medicine and cross pollination in surgery.

Alexander E. Pazoki, MD, DDS, FACS
Dept. Otolaryngology- Head and Neck Surgery
Assistant Professor/ Director
Division Oral & MaxilloFacial Surgery/Den
Johns Hopkins Medical Institutions
Baltimore, Maryland USA

Dr. Alexander E. Pazoki is board certified in Maxillofacial Surgery, and fellowship trained in Oral and Maxillofacial oncology and microvascular reconstructive surgery. Dr. Pazoki has published and lectured to various specialty groups in United States and around the world. He was also the residency program director of the Oral & Maxillofacial Surgery program at the university of Maryland Shock/ Trauma Center, as well as co-director of Maxillofacial Oncology and Microvascular Fellowship Program at the University of Maryland Medical System. Dr Pazoki is an active member of the American Head and Neck Society and a fellow of the American College of Surgeon. He is an assistant Professor of the Otolaryngology- Head and Neck Surgery and the director of the Division of the Oral and Maxillofacial Surgery and Dentistry at the John Hopkins School of Medicine.

Benjamin Dyches, DDS, JD
Legally Mine
Provo, Utah USA

Dr. Dyches earned his dental degree at Case Western Reserve University. After 13 years and 6 start-up practices, Dr. Dyches saw a need and an opportunity at the intersection of healthcare and law. He earned his Juris Doctorate from the J. Reuben Clark School of Law at Brigham Young University.

Monday, October 29th

Laleh Abdolazadeh, DDS
Department Chairman, Program Director
Maxillofacial Prosthetics
Naval Postgraduate Dental School
Bethesda, Maryland USA

Dr. Abdolazadeh is a Lieutenant Commander in the United States Navy. She was awarded the Doctor of Dental Surgery degree from the University of Maryland in 2008. She completed a three-year residency program specializing in prosthodontics at the Naval Postgraduate Dental School in Bethesda, Maryland in 2011, and a Master of Sciences in health sciences from the George Washington University, Washington, DC. In 2012, she completed a 1-year fellowship in Maxillofacial Prosthetics from the Naval Postgraduate Dental School.

She currently serves as the Department Chairman and Program Director for Maxillofacial Prosthetics at Naval Postgraduate Dental School, Bethesda, Maryland. Dr. Abdolazadeh is also the Specialty Leader and consultant for Maxillofacial Prosthetics and Dental Implants to the United States Navy Surgeon General. Dr. Abdolazadeh is a Diplomate of the American Board of Prosthodontics, a Fellow of the American College of Prosthodontists and an Associate Fellow of the American Academy of Maxillofacial Prosthetics.

Travis Bellichi, DMD, MS
Maxillofacial Prosthodontic Fellow
Indiana University Health
United States Air Force
Indianapolis, Indiana USA

Dr. Travis D. Bellicchi DMD MS is a Captain in the United States Air Force. In June 2018, he completed a combined residency and fellowship in Prosthodontics and Maxillofacial Prosthetics at Indiana University Schools of Dentistry and Medicine. During his time at Indiana University, Dr. Bellicchi created a team of artists, digital design specialists, and engineers at the undergraduate, graduate, and faculty level to develop a digital workflow in maxillofacial prosthetics.

Lindsay McHutchion, MS, BSc
Anaplastologist,
Institute for Reconstructive Sciences in Medicine
Edmonton, Alberta

Lindsay McHutchion is an Anaplastologist at the Institute for Reconstructive Sciences in Medicine (iRSM) in Edmonton, AB, Canada. She joined the team at iRSM in 2012 following completion of her Master of Science degree through the Biomedical Visualization Program at University of Illinois at Chicago. Her interests include the integration of digital technology in treatment of facial prosthetic patients, colour science, and measuring patient outcomes.

Robert G. Greenland, DDS
Advanced Prosthodontic Resident
Professor, Division of Prosthetic & Esthetic Dentistry
Rochester, Minnesota USA

Robert G. Greenland, DDS is a practicing Oral & Maxillofacial Surgeon in Rochester, MN. Dr. Greenland graduated from University of Detroit Mercy School of Dentistry in 2015 and has been in practice for 2 years. He completed a residency at Mayo Clinic.

Kyle Gazdeck, DDS, MS
Department of Prosthodontics
University of North Carolina
Chapel Hill School of Dentistry
Durham, North Carolina USA

Dr. Kyle Gazdeck earned his DDS with Honors from The University of North Carolina at Chapel Hill School of Dentistry followed by a certificate in Prosthodontics and Masters in Oral Sciences from The University of Illinois at Chicago. He then completed a fellowship in Maxillofacial Prosthetics at Memorial Sloan Kettering Cancer Center. Dr. Gazdeck currently practices in Durham, NC and holds an adjunct position within the Department of Prosthodontics at the University of North Carolina at Chapel Hill School of Dentistry.

Rishabh P. Acharya, BDS, MDS, (A)FAAMP
Graduate Fellow, Section of Oral Oncology and
Maxillofacial Prosthetics
Department of Head and Neck Surgery
UT MD Anderson Cancer Center
Houston, Texas

Dr. Acharya graduated from the D.Y. Patil University School of Dentistry, Mumbai, India with honors and was bestowed the D.Y. Patil University Gold Medal for his outstanding academic achievements in the final year of his graduate program in dentistry. Dr. Acharya successfully completed a certificate in Prosthodontics and a Master of Dental Science Degree from The Rutgers School of Dental Medicine, Newark, New Jersey. His

thesis entitled 'Retentive strength and marginal gaps of a bioactive luting agent-An in vitro pilot study' was e-published, in June 2018, in the Journal of Prosthetic Dentistry. Dr. Acharya has to his credit a fellowship in Oral Oncology and Maxillofacial Prosthodontics from The University of Texas, M.D. Anderson Cancer Center, Houston, Texas. Presently, Dr. Acharya is pursuing an advanced education program in implant dentistry at the Loma Linda University School of Dentistry, Loma Linda, California

Dr. Acharya has been conferred numerous awards. In 2014, he was conferred the PFA International Senior Students Award by the Pierre Fauchard Academy, India Section. In July 2017, The Rutgers School of Dental Medicine inducted Dr. Acharya into the National Honors Society upon recommendation. Dr. Acharya was as an 'Invited Speaker' and was awarded the 'Case Report Award' at the recently concluded convention of the American Academy of Oral Medicine at San Antonio, TX. Dr. Acharya has multiple scientific papers published in both national and international journals as well as poster discussions at national conferences. A poster entitled 'Prosthetic Rehabilitation of Severe Microstomia and Trismus from Cancer Therapy' is on display at this annual session.

Dr. Acharya is an Associate Fellow of the American Academy of Maxillofacial Prosthetics, member of the American College of Prosthodontics, American Academy of Implant Dentistry and the Indian Dental Association.

Alice Goodwin, DDS, PhD
Assistant Professor
Division of Craniofacial Anomalies
Department of Orofacial Sciences
University of California San Francisco
San Francisco, California USA

Dr. Alice Goodwin completed her DDS, PhD and residency in Orthodontics at UCSF. With her PhD thesis mentor Dr. Ophir Klein, she studied a group of congenital syndromes termed the RASopathies,

which have in common activating mutations in genes encoding components of the Ras pathway. In particular, she focused on Costello syndrome (CS), which is characterized by cardiac, musculoskeletal, and dermatologic abnormalities, and cognitive impairment and caused by activating mutations in HRAS, analyzing the craniofacial and dental features of individuals with CS and further studying amelogenesis in a CS mouse model. She is currently an assistant professor at UCSF in the Division of Craniofacial Anomalies in the Department of Orofacial Sciences and treats patients at the Craniofacial Center and Orthodontic Faculty Practice and studies the biology underlying craniofacial anomalies in her lab, focusing on clefting of the secondary palate and temporomandibular joint disorders, utilizing mouse models.

Lawrence E. Brecht, DDS
Institute of Reconstructive Plastic Surgery
Department of Plastic Surgery
New York University-Langone Medical Center
Jonathan & Maxine Ferencz Advanced Education Program in Prosthodontics
New York University College of Dentistry
New York, NY, USA

Lawrence E. Brecht, DDS, is the Director of Maxillofacial Prosthetics in at New York University College of Dentistry in the Jonathan & Maxine Ferencz Advanced Education Program in Prosthodontics. He has a joint appointment at the Institute of Reconstructive Plastic Surgery, Hansjörg Wyss Department of Plastic Surgery and the Department of Otolaryngology-Head & Neck Surgery of NYU Langone Health. In addition, he is the Director of Maxillofacial Prosethetics at Lenox Hill Hospital of the Northwell Health System. Dr. Brecht received his DDS from New York University and completed a residency at Boston's Brigham & Women's Hospital and a Fellowship at Harvard School of Dental Medicine. He then earned his Certificates in both Prosthodontics, as well as Maxillofacial Prosthetics from the New York Veterans Administration Hospital. In addition to memberships in many

prosthodontic organizations, he is a past-president of the Greater New York Academy of Prosthodontics as well as a past-president of the American Academy of Maxillofacial Prosthetics. Currently, he serves as the President of the Maxillofacial Foundation. He is a frequent contributor to the plastic and maxillofacial prosthetics literature and serves as a reviewer for several prosthodontic and surgical journals. He is one of the developers of nasoalveolar molding (NAM) for early cleft management and the "Jaw-in-a-Day" (JIAD) concept for reconstruction of the mandible and maxilla. Dr. Brecht serves on the Medical Advisory Board of NextGenFace, a charitable organization that supports children with craniofacial conditions and their families. He also maintains a practice limited to prosthodontics and maxillofacial prosthetics in New York City.

Tuesday, October 30th

Evan Rosen, DMD, MPH, FACP
Assistant Attending, Dental Service
Memorial Sloan Kettering Cancer Center
New York, New York USA

Dr. Evan B. Rosen is the current Maxillofacial Prosthetics Fellowship Director and Straumann Maxillofacial Dental Implantology Research Fellowship Director at Memorial Sloan Kettering Cancer Center (MSK). He earned his DMD from the University of Florida College of Dentistry and his MPH from Florida International University. He then completed his Prosthodontics Residency at the Eastman Institute for Oral Health in Rochester, New York and his Fellowship in Maxillofacial Prosthetics at MSK in New York City. In addition to his academic roles at MSK, Dr. Rosen is an Assistant Professor of Clinical Surgery at the Weill Cornell Medical College. Dr. Rosen is a Diplomate of the American Board of Prosthodontics, a Fellow of the American Academy of Maxillofacial Prosthetics, and a Fellow of the American College of Prosthodontists. Dr. Rosen maintains a full-time maxillofacial prosthetics clinical practice at MSK and is actively engaged in

clinical research with a focus on maxillofacial implantology and patient-reported quality-of-life outcomes.

Robert Allen Jr., MD
Memorial Sloan Kettering Cancer Center
Plastic & Reconstructive Surgery
Department of Surgery
New York, New York USA

Dr. Allen received his MD from the Medical University of South Carolina. He then undertook a postdoctoral research fellowship at the NYU Langone Medical Center's Institute of Reconstructive Plastic Surgery Laboratory, where he subsequently completed his residency in Plastic & Reconstructive Surgery. Dr. Allen pursued further specialization following residency as a Fellow in Microsurgery at Chang Gung Memorial Hospital in Taiwan, an institution widely recognized for excellence in reconstructive microsurgical procedures. Since beginning his practice at Memorial Sloan Kettering, he has focused on complex oncologic reconstructions of the head and neck, breast and extremities.

Matthew M. Hanasono, M.D.
Professor and Reconstructive Microsurgery
Fellowship Program Director
Department of Plastic Surgery
The University of Texas MD Anderson Cancer Center
Houston, Texas USA

Dr. Matthew Hanasono is a Professor and Reconstructive Microsurgery

Fellowship Program Director in the Department of Plastic Surgery at The University of Texas MD Anderson Cancer Center. He received his undergraduate degree in Biology Summa cum Laude at the University of California, Los Angeles and his medical degree from Stanford University. Dr. Hanasono completed a residency in Otolaryngology—Head and Neck Surgery at Stanford University and a residency in Plastic Surgery at Cornell University, followed by a fellowship in Reconstructive Microsurgery at MD Anderson Cancer Center. Since 2005, he has been on faculty at MD Anderson Cancer Center. He has published over 100 articles and 60 book chapters. Dr. Hanasono had the honor being the 2015 American Society for Reconstructive Microsurgery Godina Traveling Fellow. He has also served as a Plastic Surgery Foundation Visiting Professor from 2017 to 2018.

Tom Salinas, DDS
Professor of Dentistry
Mayo Clinic
Department of Dental Specialties
Rochester, Minnesota USA

Thomas Salinas is Professor of Dentistry at the Mayo Clinic, where his time is dedicated to rehabilitation of patients with complex care needs. He has authored over 75 publications related to prosthodontics and interdisciplinary care. His research interests are biomaterial behavior and clinical outcome studies.

Theresa Hofstede, DDS, FACP
Associate Professor
Oral Oncology and Maxillofacial Prosthodontics
Department of Head and Neck Surgery
University of Texas MD Anderson Cancer Center
Houston, TX, USA

Dr. Hofstede is an associate professor in the section of Oral Oncology and Maxillofacial Prosthodontics, Department of Head and Neck Surgery, at the University of Texas MD Anderson Cancer Center. She completed her Doctorate of Dental Surgery (1991) and a General Practice Residency (1992) at the University of Western Ontario in London, Ontario, Canada. She received her certificate in prosthodontics from the University of Rochester Eastman Dental Center in 1999. After years of private practice, Dr. Hofstede completed a fellowship in Oral Oncology and Maxillofacial Prosthodontics at the MD Anderson Cancer Center (MDACC). She is currently the director of the fellowship program in Oral Oncology and Maxillofacial Prosthodontics at MDACC.

Dr. Hofstede is a diplomate of the American Board of Prosthodontics. She is a fellow in the American College of Prosthodontics (ACP), and the American Academy of Maxillofacial Prosthetics (AAMP). Dr. Hofstede serves on the Board of Directors of the AAMP and is the chairman of the Educational committee for the AAMP.

Russell Wang, DDS, MSD
Associate Professor
Case Western Reserve University
School of Dental Medicine
Cleveland, Ohio USA

Dr. Wang obtained his DDS degree from Faculty of Dentistry University Toronto, his MSD in prosthodontics from Indiana University School of Dentistry He was a maxillofacial prosthodontic fellow at the University of Texas MD Anderson Cancer Center. Currently, he practices on a part-time basis and he is an associate professor at Case Western Reserve University School of Dental Medicine and a consultant at Cleveland Clinic. He has over 45 publications in dental, medical and engineering journals. Dr. Wang has 2nd appointments at CWRU Department of Biomedical Engineering, otolaryngology and Materials Since Engineering. His research interests focus on implant materials and biomechanics.

David J. Reisberg, DDS, FACP, FAAMP
The Craniofacial Center
University of Illinois Hospital
and Health Sciences System
Chicago, Illinois USA

Dr. David Reisberg received his dental degree from Case Western Reserve University in 1977. He completed a General Practice Dental Residency at Michael Reese Hospital (1978) and has a certificate in Prosthodontics from Tufts University (1980) and one in Maxillofacial Prosthetics from The University of Chicago (1981). He has been Director of the Maxillofacial Prosthetics Clinic at The University of Illinois Hospital and Health Sciences System in Chicago since 1981. He served as Medical Director of The Craniofacial Center there from 1998 to 2010. Dr. Reisberg is president of the American Academy of Maxillofacial Prosthetics and past president of the International Society for Maxillofacial Rehabilitation. He is also president of Ameriface, a national organization that supports people with facial differences and a member of the Executive Council of the American Prosthodontic Society. Dr. Reisberg is certified by the American Board of Prosthodontics and grandfather to Lily, Thomas, and Jack Jerome.

Sunday, October 28th

Workshop #1

Advanced Technology in Head and Neck Cancer Treatment: Scanning, Digital Design, and 3D Printing for Surgery, Radiation Oncology, and Prosthetic Rehabilitation

Instructors: Dr. Bellicchi & Dr. Diaz Rubayo
14:00 - 16:30

Join an interdisciplinary workshop hosted by Formlabs and presenters from Otolaryngology, Radiation Oncology, Informatics and Computing, and Maxillofacial Prosthetics. Detail about their experience developing a workflow to serve the head and neck cancer population will be shared. Attendees will receive live demonstrations of facial scanning and digital design for 3D printing. Formlabs representatives will provide training on their latest hardware, software, and material offerings. The workshop will focus on small group interaction with ample time set aside for question and answer sessions. Attendees will be guided through multiple technology stations individually designed to provide a snapshot of each step in the digital workflow for 3D printed head and neck cancer patients. Attendees will be exposed to all essential steps in the protocol to plan and print surgical models, surgical templates, radiation bolus appliances, and molds for extra-oral prosthetics.

Monday, October 28th
Workshop #2

Insurance Workshop Co-Sponsored with MUSC
Instructor: Dr. Betsy Davis
13:30 - 17:00
The insurance workshop will focus on billing medical insurance for maxillofacial prosthodontic codes. Topics to be covered include proper coding, predetermination letters, dictation templates, medical insurance forms, managed care, the role of the clearinghouse, and medical forms if you opt out of Medicare for the patient to receive reimbursement. A new H&N cancer patient will be used as an example to review each process from diagnosis to payment.

Upon completion of the course, participants should be better able to:
1. Understand the role of proper diagnosis, precertification, proper documentation, and medical form completion for the H&N cancer patient.

Tuesday, October 30th
Workshop #3

Digital Implant Planning for Craniofacial Implants, Digital Colour Matching and use of Magnets
Instructors: Alan Bocca, Mark Waters
14:00 - 16:45

This afternoon workshop covers the use of digital technology in the creation of an implant retained maxillofacial prosthesis. The course is aimed at those with some anaplastology experience who want to sharpen their skills and knowledge on implant planning, 3D scanning, intrinsic colouration techniques and the use of magnets to retain prostheses. The presenters have a wealth of experience in implant planning, silicone science and anaplastology and the workshop gives the opportunity for the participants to 'pick their brains' in an informal atmosphere.

How to Become a Member

If you are interested in becoming a member, attending our Annual Meeting is the best way to become familiar with the membership and educational process.
There are three primary membership tracks for the AAMP:

• Affiliate • Associate • Allied Health • Student •

Application Process and Membership Categories

Individuals eligible for membership in the AAMP include:

- Licensed dentists in good standing in the country in which they practice and retain citizenship
- Persons licensed, registered or otherwise permitted by law to practice as dental or maxillofacial prosthetic technicians who are involved in only non independent or indirect patient care as directed or prescribed by a licensed dentist
- Student Membership is also available. Please see the AAMP web site to view the qualifications and to apply.

For more information, please navigate to our website:

www.maxillofacialprosthetics.org

and click the **membership** tab

Poster 1

PROSTHETIC REHABILITATION OF SEVERE MICROSTOMIA AND TRISMUS FROM CANCER THERAPY

Acharya, Rishabh *, Won, Alexander; Graham, William and Chambers, Mark
University of Texas Md Anderson Cancer Center
Head and Neck Surgery
Houston, TX, United States

Keywords: microstomia, LEGOS®, sectional prosthesis

Case Presentation: Statement of Problem: Microstomia and trismus can be debilitating side effects of surgical treatment of neoplasms and radiation therapy. Prosthetic rehabilitation of patients with these conditions is extremely challenging, if not impossible.

Case Report: A 85-year-old female with a history of T3N2bM0 squamous cell carcinoma of the left buccal mucosa underwent radical resection of soft tissues of the left face including the upper and lower lip, left neck dissection and immediate free flap reconstruction (radial forearm free flap for left intra-oral, left cervicofacial flap for left cheek and full thickness skin graft), followed by postoperative radiation therapy. She presented to the Section of Oral Oncology and Maxillofacial Prosthodontics, University of Texas MD Anderson Cancer with severe oral incompetence and inability to insert her existing prosthesis. Due to the patient's limited oral opening; sectional complete dentures were fabricated with 2-piece custom trays utilizing LEGOS® and unique metal substructure design.

Clinical Implications: This case report describes an alternative technique used to fabricate maxillary and mandibular complete dentures for patients with severe microstomia with trismus.

Poster 2

DIGITAL TECHNOLOGY - ASSISTING PROSTHODONTIC RESIDENTS TO FABRICATE ORBITAL PROSTHESES

Alaidrous, May *, Dr.Morgan, Sujey
Tufts University
Prosthodontics and Maxillofacial
Boston, MA United States

Case Presentation: Maxillofacial prostheses are difficult and challenging to fabricate. Normally, it is an anaplastologist who takes the lead in fabricating these prostheses. Technology has opened a new window for postgraduate residents to incorporate digital dentistry into the fabrication of these prostheses. These developments will enhance prosthodontists' ability to restore the patient's confidence, self-esteem and daily interactions with peers.
A 77-year-old Asian male patient presented to Tufts University Post Graduate Prosthodontic Maxillofacial Clinic after exenteration of his Right eye due to diagnosis with infiltrating adenocarcinoma of the lower eyelid and peri-ocular orbital tissues in November 2015.

Upon examination, an orbital silicon prosthesis was indicated for to restore the missing tissues. The prosthesis will be retained using medical adhesives and the undercut in the defective area. The patient will use his eyeglasses to gain additional support and retention from the ears.

Material and Methods:

A digital work flow was planned to fabricate his orbital prosthesis.

- An impression of the defective area was taken using PVS impression material (addition silicon), and poured with resin rock.
- A full facial image was taken using FACIAL SCANNER (3DMD sterophotogrammetry) to obtain an STL file.
- A digital cast and image mirroring was obtained using EXOCAD software.
  - Prototype was printed with acrylic through SLA printer using (VARSEO, BEGO).
- Z DUPE duplicating material was used to make a mold of the prototype.
- Z DUPE mold was poured with wax.
- The new wax pattern was adapted to the master cast and ocular part inserted for try-in.
- Wax pattern was processed into silicone, coloring was done then prosthesis was delivered.

Poster 3

PREDICTIVE FACTORS OF OUTER CORTEX LOSS IN ADVANCED JAW RECONSTRUCTION

Alfouzan, Afnan *, Alfouzan, Afnan; Chuka, Richelle; Rieger, Jana; Aalto, Daniel Seikaly, Hadi; Nayar, Suresh Osswald, Martin
Institute for Reconstructive Sciences In Medicine
Edmonton, Canada

Keywords: Head and neck tumor, advanced jaw reconstruction rehabilitation, cortical bone loss

Purpose/Aim: The Alberta reconstruction Technique (ART) has been used for advanced jaw reconstruction rehabilitation (JRR) to treat head and neck tumor (HNT) patients. The ART involves a preoperative surgical design and simulation (SDS) using three-dimensional digital technology for the microvascular fibular free flap reconstruction involving the primary installation of implants (+/- chemoradiation). The surgical driven design principles have evolved in the planning and delivery of the ART to support the completion of oral rehabilitation in the JRR pathway. This study investigated what factors influence outer cortex loss (OCL) in ART participates treated at iRSM.

Materials and Methods: Ethics approval was obtained for this retrospective chart review of adult head and neck tumor (HNT) participants. Patients were included if they underwent the Alberta Reconstructive Technique (ART) for a head and neck tumor between January 2011 and August 2018 at the Institute for Reconstructive Sciences in Medicine (iRSM). Descriptive and parametric statistics were used to analyze the data. Patient demographics and treatment variables (hyperbaric oxygen (HBO), implant diameter, bone impacted fibula, radiation therapy (RT), chemotherapy, number of implants installed, number of osteotomies were examined for potential predictive factors for outer cortex loss. Outer cortex loss measured by reported incidence of osteoradionecrosis, osteomyelitis or a non-healing bone exposure. Due to the high attrition rate in the sample, competing risk survival analysis was performed with OCL and death as competing risk in the survival analysis.

Results: A total of 62 participants fulfilled the inclusion criteria. 29 of the 62 (47%) patients underwent radiation therapy (median dosage 6000 cGy, range 3000-7200). 10 of the 29 irradiated (34%) patients were recorded to have an OCL event. There were 127 implants installed in the RT patients and as a result of the OCL, 28 implants (22%) were lost. There was no OCL in the non-irradiated ART participants, no implants were lost out of the 111 installed. RT was associated with outer cortex loss (Fisher exact test $P< 0.001$). The competing risk survival model shows an overall incidence of loss of 0.2 per 1000 days following surgery.

Conclusions:
Following JRR surgery, OCL was associated to the RT patients. An OCL event may delay or prevent the completion of JRR.

Since only 10 participants exhibited OCL a more refined analysis of the underlying factors remains limited in the study. More research is necessary to determine the role of other relevant factors to OCL.

Poster 4

IMMEDIATE MANDIBULAR RESECTION & RECONSTRUCTION USING 3D PRINTED SURGICAL & PROSTHETIC GUIDES

Asiri, Waleed *, Kase, Michael- Sooudi, Iradj - Moorlandt, Tony- Park, Peter - Mourad, Firas
University of Alabama at Birmingham
Maxillofacial Prosthetics
Birmingham, AL, United States

Keywords: 3D, PRINTED, GUIDES

Case Presentation: Introduction: Tumors of the mandible are complex, often requiring replacement of bone, soft tissue, and teeth. The fibula flap has become a common procedure in large tumors of the jaw, providing bone and soft tissue at the time of the resection. In current practice, dental reconstruction is postponed for 3 to 6 months, leaving the patient without teeth in the interim stage. This can be disfiguring and traumatic to the patient.

Methods: In this case report, I present a patient who was diagnosed with benign tumor “Ossifying fibroma” of the anterior mandible mandible who underwent virtually guided resection, fibula reconstruction, and insertion of an implant-retained dental prosthesis in one operation.

Conclusions: In the right situation, total mandibular reconstruction is possible in a single stage.

Poster 5

REHABILITATION OF MANDIBULAR DEFECT WITH IMPLANT RETAINED BAR WITH OT CAP ATTACHMENTS: CASE REPORT

Ayvalioglu, Demet Cagil *
Altinbas University
Department of Prosthodontics
Istanbul, Bakirkoy, Turkey

Keywords: bar, OT Cap, Mandibulectomy

Case Presentation: Background
Maxillo-facial defects may occur from various reasons such as congenital abnormalities, trauma and acquired defects due to tumors,cycts. The defects may result significant aesthetic deformities and functional disorders and these patienst may also be affected physcologically. Due to the complex nature of the defect causes prosthetic rehabilitation of challenging.
Objectives
The use of dental implants is a predictableand up to date treatment option for edentualism, as well as maxillo-facial defects. In mandible due to insufficient hard tissue support and presence of the tongue makes harder to obtain adequate retention and stability of the denture . Especially splinted attachments are preferred in advanced bone loss and in cases where inadequate number of implants are used and/or short and narrow-diameter implants are placed.In such cases additional attachment systems are needed. The aim of this case report is to demonstrate the use of OT Cap distal extension attachment in 52 year old female hemi-mandibulectomy patient.
Technique
52 years old female patient who had hemi-mandibulectomy due to neoplasm resection at Istanbul University Plastic and Reconstructive Surgery Department, referred to Department of Prosthodontics.The patient was suffering from lack of masticatory function and speech inability. A comprehensive treatment plan based on clinical and radiographic findings and specialty consultation with the plastic surgeons was present to the patient. A bar with distal extension attachment (OT Strategy;Rhein 83,Bologna,Italy) retained overdenture on 2 tissue level implants (12 mm lenght, 4.1 mm diameter; Institut Straumann AG, Waldenburg, Switzerland) was planned.
Due to extensive hard and soft tissue loss , the implants were applied on the right side of the mandible due to the hemi-mandibulectomy . To restore the function and to obtain adequate retantion of the denture during mastication and speech ,the implants were splinted with a bar attachment with extra precise OT Cap .attachments located at the both distal ends of the bar.

Conclusion
Despite limited mouth opening, the functional, fonational and aesthetic demands of the patient were fullfilled. Routine recall protocol was performed.

Clinical Implications
The dental implants can not be always ideally located in such challenging cases, therefore OT Cap attachments may act beneficial to obtain optimum retention and stability of the denture.

Poster 6

THE ROLE OF MAXILLOFACIAL PROSTHETICS IN PATIENTS WITH NASAL TYPE NK-T NON- -HODGKIN'S LYMPHOMA

Cervantes, Jorge *, Seamanduras, Gabriela Jiménez-Castillo, René Lozano-Ruiz, Francisco-Javier Cuadros-Peniche, Ana-Heli
National Autonomous University of Mexico
Division of Postgraduate Studies and Research
Mexico City, Mexico

Keywords: intraoralstents, radiotherapy, maxillofacialprosthetics

Case Presentation: Extranodal nasal type NK-/T-cell lymphoma (NT-NK-T-NHL) is an uncommon neoplasm. This lymphoma, is a locally-aggressive tumor which causes destruction of the surrounding tissue. Standard treatment is concurrent chemoradiation or secuencial chemoradiation,. Oral toxicity in radiotherapy is common, it usually ranges from 30 to 60% and could lead to high morbidity.

The maxillofacial prothesist offers an efficient individualized function-specific stents, either protecting healthy tissue or assure the reproducibility of the patient position during treatment, separation of soft tissues, tongue depression and/or open mouth fixation.

When reconstructive surgery can't be performed by any reason, maxillofacial prosthetics is a viable alternative.

The objective of this article is to demonstrate the importance of Maxillofacial Prosthetics in the treatment of NT-NK-T-NHL patients in different clinical scenario.

Cases Reports. These two patients with NT-NK-T-NHL were attended in the maxilofacial prosthetics clinic in the Division of Postgraduate Studies and Research at the National Autonomous University of Mexico.

Case 1 - During treatment -
28 year old male was diagnosed with NT-NK-T-NHL. 54Gy of Intensity-modulated radiation therapy (IMRT) with concurrent cisplatin where prescribed. An intra oral customized stent was performed.

Case 2 - Prosthetic Rehabilitation -
33 year- old female was diagnosed with bulky NT-NK-T-NHL. After oncologic treatment she presented an intraoral and extraoral right combined defect from surgical debridement of necrotic tissues, this comprehended skin, muscle and maxillary and nasal bone.

Discussion
In case 1, A customized stent was used as needed by oncologic treatment, creating space between high doses and organs at risk, such as mouth and tongue, therefore avoiding or reducing radiotherapy-induced oral toxicity, and possible improving patient adherence to treatment. In case 2 the patient has a combined defect due to tumor regression and surgical procedures, a complex prosthetic was required. In both cases the role of the maxillofacial prosthetic was essential.

Conclusion
The role of maxillofacial prosthetist in patients with NT-NK-T-NHL directly impacts oral health, avoiding or reducing oral mucositis, dysphagia, dysgeusia and xerostomy. In addition, the maxillofacial prothesist rehabilitates with complex prosthesis patient's fonation, alimentation, breathing and facial aesthetics, helping them reincorporate their daily activities and improving their quality of life.

Poster 7

PROSTHODONTIC TREATMENT OF A PATIENT WITH EWING SARCOMA OF THE LEFT MAXILLARY SINUS

Chi, Woo *, Hofstede, Theresa, Hanasono, Matthew, Aponte-Wesson, Ruth
Md Anderson Cancer Center
Head and Neck Surgery
Bethesda, MD, United States

Keywords: Ewing sarcoma, maxillary obturator prosthesis

Case Presentation: This clinical report describes the prosthodontic rehabilitation of a 22-year-old woman with a substantial treatment history of Ewing sarcoma of the left maxillary sinus. The patient was diagnosed with Ewing sarcoma at 7 years of age and went through chemotherapy, radiation, surgical resection, and free flap reconstruction, initially without prosthodontic rehabilitation. The patient was referred to the oral oncology clinic at The University of Texas MD Anderson Cancer Center for prosthodontic treatment at 22 years of age. The patient's prosthetic rehabilitation with dental implants and a definitive maxillary obturator prosthesis is presented in detail.

Poster 8

PROSTHETIC REHABILITATION OF A POST-BURN CASE WITH LIMITED MOUTH OPENING: A CASE REPORT

Demir, Azize *, Yurtseven, Aysem**
***Biruni University ****Istanbul University**
***Faculty of Dentistry, Department of Prosthodontics ****Faculty of Dentistry, Department of Oral&Maxillofacial Surgery**
Istanbul, Türkiye, Turkey

Keywords: post-burn, limited mouth opening, scarred mouth

Case Presentation: Background
Traumatic injuries are among the most prominent public health problems in all over the world. As well as being a leading cause of mortality, many of the millions of non-fatal injuries result in life-long disabilities and health problems.

Technique/Case Report
A fifty-two years old female patient referred to Istanbul University, Faculty of Dentistry, Department of Prosthetic Dentistry has a medical history with a third degree burn trauma of facial and neck area when she was two and a half years old.

The dermis layer of the skin with zero regeneration had been seriously affected. Due to the traumatic injury the skin has developed hypertrophic scars which healed mostly by repetitive processes without any surgical intervention. These scars around her mouth had resulted in severely limited mouth opening.

The extraoral examination indicated that the patients' facial structures especially her mandible had not been developed properly and her mouth opening restricted by her contracted lips. The intraoral examination showed that the patient had only lost second molars from the upper jaw but had no mandibular teeth.

The patients' expectations are naturally the function to chew the food and the aesthetics to smile with full set of teeth. Accordingly, we have decided to fabricate a removable prosthesis with locator implant attachments.

Discussion
The edentulous mandible can be restored in many ways such as total prosthesis, implant supported partial prosthesis or implant supported fixed prosthetic restorations. The selection of the treatment depends on the expectations and the financial availability of the patient.

The design of the implant supported prosthesis has a major role on the service life of the implants for a long term. The attachment type is completely related to the lateral forces which cause the overturning moment on the prosthesis. Ball, locator or era type

attachments impact positively on the long-term success.

Conclusion
Removable prosthesis with locator implant attachments have been selected for the treatment of the post-burn patient with scar around her mouth. This treatment clearly showed that treating patients with limited mouth opening can be successfully achieved to meet the expectations of the patients.

Clinical Implications
Limited mouth opening can be hard to treat for edentulous patients but this case has successfully proven that it can be done.

Poster 9

MAXILLOFACIAL REHABILITATION OF MANDIBLE FREE FIBULA FLAP, ENDOSSEOUS IMPLANTS, AND FIXED PROSTHESIS: A CLINICAL REPORT

Diaz Rubayo, David *, Dr Evan Rosen
Memorial Sloan Kettering Cancer Center
Surgery
New York City, NY, Puerto Rico

Keywords: Adenocystic, maxillofacial, prosthodontic

Case Presentation: Abstract:
This clinical report describes a patient diagnosed with Adenoid Cystic Carcinoma who underwent segmental mandibulectomy, mandibular reconstruction with an osteocutaneous fibula free flap, immediate endosseous implant placement, and adjuvant radiotherapy. Expedited oral rehabilitation with a mandibular resection prosthesis was facilitated by multidisciplinary CAD/CAM pre-surgical planning. The interdisciplinary collaboration allowed this patient to have an interim mandibular resection prosthesis delivered prior to radiotherapy to maintain the patient's quality of life. At the completion of radiotherapy, a milled bar and removable mandibular resection prosthesis was fabricated. Benefits to this approach include maintenance of esthetic and functional goals during oncologic treatment and the ability to provide implant supported oral rehabilitation to patients undergoing oncologic treatment without the need for additional surgery.

Poster 10

AURICULAR PROSTHETIC REHABILITATION OF A COMBAT WARRIOR: A CASE REPORT

Honnlee, Young Jason *
United States Air Force Air Force Postgraduate Dental School
Maxillofacial Prosthetics
Jbsa-Lackland, TX, United States

Case Presentation: Burn trauma not only suffered in battlefield during combat. Military training simulation and combat operation place troops in high-risk scenarios….A young marine acquired facial burn trauma to one-half of left side of his head including complete auricular loss deformities during arduous military training simulation exercise. The aim of this poster is to provide an overview of the type of trauma, fully guided auricular implants placement and applied reconstructive techniques in San Antonio Military Medical Center (SAMMC) in San Antonio, TX.

Poster 11

COMPARISON OF DENTAL BIOMATERIALS FOR ORAL POSITIONING DEVICE USED IN PROTON BEAM THERAPY

Lee, Sarah *, Muller, Olivia, Deisher, Amanda
Mayo Clinic
Maxillofacial Prosthetics & Dental Oncology
Rochester, MN, United States

Keywords: protonbeamtherapy, headandneck cancer, oralstent

Purpose/Aim: The advent of proton beam therapy for radiation of head and neck cancer has proven to be efficacious in treating cancer while reducing toxicities. Unlike photon-based radiation therapy, the penetrative characteristic of protons varies based on the type of tissue and material through which the charged particles pass. In the case of oral cancer, the use of oral positioning devices is important for aligning and immobilizing structures of the oral cavity reproducibly in an appropriate position. They are an important part of the planning for radiation therapy and must be distinguishable from adjacent anatomy when viewed radiographically. But given that the lack of standardization in fabrication methods and materials, it is not well understood if and how oral stents affect treatment utilizing proton beam therapy and its penetrative capabilities.

Materials and Methods: Ten formulations of dental acrylic with varying percentages of

barium sulfate were tested in an in-vitro setting. The samples were analyzed with x-ray and computed tomography to evaluate for the presence of air bubblesand the distribution of barium sulfate and to make relative proton stopping power (RSP) predictions. RSP measurements were made in the Mayo Clinic – Rochester proton beam.

Results: Uneven distribution of barium sulfate and presence of air bubbles within a material affected the proton stopping power. Biocryl (Scheu-Dental, Iserlohn, Germany) demonstrated superior tissue differentiation in radiographic imaging.

Conclusions: Biocryl has material properties conducive for an oral positioning device in proton beam therapy of head and neck cancer. Further in-vitro analysis exploring alternative materials such as compression-based or injection-based radiopaque acrylics with significantly reduced porosities is needed. Additionally, in-vivo testing of a prototype-oral device based on in-vitro findings would clinically translate and provide insight on the compatibility and efficaciousness of this type of oral device when utilized in treatment.

Poster 12

TREATMENT OF RADIOTHERAPY INDUCED TRISMUS WITH LLLT: A CASE REPORT

Mert Eren, Meltem *, Ayvalioglu, Demet Çagil
Altinbas University
Restorative Dentistry
Istanbul, Bakirkoy, Turkey

Case Presentation: Background
Trismus is one of the most common and significant late side effects of head and neck region radiotherapy that affects the quality of life of the patient. The severity of trismus varies depending on the dose, duration of the exposure and relevant tissue structure.

Objectives
Different treatment modalities have been performed up to date. Low-level laser therapy (LLLT) is one of the latest and conservative treatment options that stimulate the related muscles preventing fibrosis or/and ankylosis due to radiotherapy.

Technique
A 30-year-old male patient who had surgical operation and radiotherapy to head and neck region due to laryngopharynx CA, attended to the clinic with induced mouth opening and related deficieny of nutrition.
The patient was suffered from T3 grade Laryngopharyx CA and the treatment was planned in such a way as to resection of the affected area and application radiotherapy afterward. The first radiotherapy protocol was applied to the residual tumor region with 70 Gy and to the neck region with 60 Gy at 6 fractions per week. Due to recurrence of the tumor in time, a second radiotherapy protocol was applied. After having two

stages of radiotherapy, trismus has occurred with partially fibrosis and ankylosis of the related muscles that kept the patient constantly in occlusion.
Low laser therapy was applied to the head and neck region muscles 5 fractions per week for 5 months. The initial session was 320 MPV, 5 joules, 14 seconds and the last session was 320 MPV, 8 joules, 21 seconds.

Conclusion
An interocclusal distance appeared and increased 4 mm's after the treatment. Through 4mm progression, nutrition was positively affected. Routine recall appointments were performed. The patient's nutrition was improved and depending on this improvement his general health condition also enhanced.

Clinical Implications
Low-level laser therapy is a promising treatment option for trismus. More clinical trials should be performed to evaluate the biostimulative process of the therapy.

Poster 13

CREATING A DIGITAL ARCHIVE OF MAXILLOFACIAL PROSTHESES

Richards, Samuel *, Abdolazadeh, Laleh Dds, Ms, Facp
Walter Reed National Military Medical Center - Naval Postgraduate Dental School
Maxillofacial Prosthetics
Bethesda, MD, United States

Case Presentation: Much care and attention to detail is required when capturing the residual anatomy of a maxillary defect, as its efficacy aims to maximize the support, retention, and stability of an obturating prosthesis. There has been a growing number of case reports touting the possibilities of using intra-oral scanners (IOSs) to capture the anatomical structures important to Complete Removable Dental Prostheses. While these devices have progressed dramatically in recent years, issues with depth of scan and an insufficient number of discernible anatomical markers on the residual anatomy of a maxillofacial defect still make the use of IOSs for obturators challenging.

Nevertheless, a 2016 case report by Elbashti et al explores the possibilities of utilizing scanning technology to create a digital replica of a fabricated prosthesis with measurable success. This archived data can be stored in a patient's digital record and used to re-fabricate a future prosthesis via additive manufacturing without having to revisit all of the same arduous procedures required to fabricate the initial prosthesis.

This case report further explores advanced digital technology's role in designing, archiving, and digitally manufacturing maxillofacial prostheses via an alternative method.

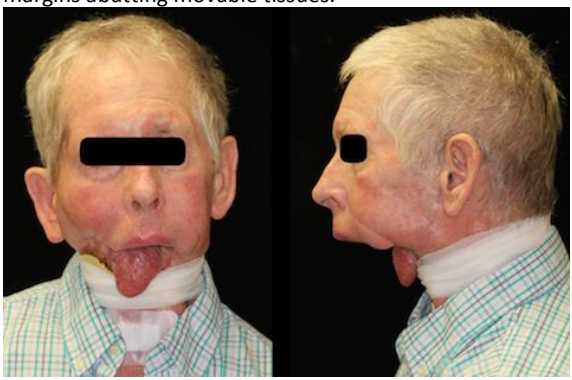
Poster 14

PROSTHETIC REHABILITATION OF EXTENSIVE LOWER FACIAL DEFECT: CASE REPORT

Rojanasakul, Nuntaporn *, Jay Jayanetti
University of California Los Angeles
Maxillofacial Prosthodontic Department
Los Angeles, CA, United States

Keywords: mandibulectomy, stent, speech

Case Presentation: 67-year-old male patient with extensive lower facial defect presented to the University of California Los Angeles, Maxillofacial Prosthodontic clinic with a chief complaint of a parched and exposed tongue unintelligible speech, and a desire for prosthetic improvement of appearance. Through his wife and a digital note pad, the patient reported a history of squamous cell carcinoma of the lower lip, initially treated conservatively with Mohs surgery. Although a recent PET CT suggests he is cancer free, he is S/P recurrences and multiple resections, chemo and radiotherapy, osteoradionecrosis and multiple failed attempts of surgical reconstruction including flaps from the anterolateral thigh, scapula, forearm, both fibulas and pectoralis major. Clinical and radiographic examinations revealed a large defect that involved nearly the entire mandible and all associated myocutanous tissues of the lower facial third, including the lower lip. The midface, including a full complement of maxillary teeth, are in good unaltered condition, except for some distortion of the labial commissures. An oral and facial prosthesis, fabricated employing conventional and digital technologies, improved appearance and promoted minor improvements in resonance and articulation with collaboration with speech and swallow therapist. The patient and wife report an improvement in quality of life. The sheer size of the facial prosthesis presented fabrication, weight and retention challenges, as did maintaining closed margins abutting movable tissues.



Poster 15

A COMPLEX ORBITOFACIAL PROSTHESIS AFTER SURGICAL APPROACH ON LOCALLY AGGRESSIVE BASAL CELL CARCINOMA

Seamanduras, Gabriela *, Cervantes De La Rosa, Jorge Ernesto* Lozano Ruiz, Francisco Javier* Cuadros Peniche, Ana Heli, Jiménez Castillo René.
Universidad Nacional Autónoma De México
Maxillofacial Prosthesis
Ciudad de México, Ciudad De México, United States

Keywords: Basal cell carcinoma, orbitofacial prosthesis, complex prosthesis

Case Presentation: Background
Skin cancer is the most common neoplasia in the world. Basal Cell Carcinoma (BCC) is the most frequent histology, being the exposure to UV rays the main risk factor. Mexico's incidence of BCC is unknown, although small epidemiologic studies have reported as high as 77% of the skin cancers diagnosed. (1)
Meanwhile, BCC is the most common cancer in the United States. (2)

It has been reported that females are more affected than males, with greater presentation in patients aged 70 and above, being the lower lid affected twice more than the upper lid. Recurrence rate after surgery with histologically clear resection margins is 5%. (3)

The tumor histological subtype, anatomical location and patient's health are factors for treatment decision. There are multiple treatment choices being surgery the most effective. (4) Post-treatment, patient monitoring is important for possible recurrence and for the development of new skin cancers. (2)

Facial deformity may cause functional and psychological impairment. Surgical, prosthetic or combinations are available rehabilitative options in restoring proper form and aesthetics. In most situations, surgical reconstruction alone may not be feasible. When prosthetic rehabilitation is planned, the prosthesis should be indiscernible as much as possible from the surrounding natural tissue. Proper treatment planning entitles the right selection of material and retentive aid for the prosthesis. (5)

Case report
65-year-old male presents facial defect secondary to surgical correction of BCC. Treatment plan is rehabilitation of the defect with a complex orbitofacial prosthesis, done at the Maxillofacial Prosthetics clinic in Universidad Nacional Autónoma de México.

Discussion
In many occasions the need for rehabilitation makes us apply all our knowledge acquired in books, our wit and combination of the materials available to us at the moment, since

the facial defect causes a low self-esteem and it is common for the family to be affected too, it is of great importance to achieve a complete integration of the patient to his family and social life.

Conclusion
It was necessary to combine different materials to create a support structure, retention and give stability to the prosthesis, using a transfer structure, magnets and adhesive, obtaining great results.

Clinical Implications

Poster 16

REAL TIME NAVIGATION SURGERY FOR PLACEMENT OF ZYGOMATIC IMPLANTS TO RETAIN A NASAL PROSTHESIS

Tso, Theodore *, Freymiller, Earl; Tanner, Jeffrey; Jayanetti, Jay
University of California Los Angeles
Maxillofacial Prosthetics
Los Angeles, CA, United States

Keywords: guided, navigation, zygomatic

Case Presentation: Prosthetic treatment of a patient presenting with a total rhinectomy is described. The patient had previously been fabricated an adhesive retained nasal prosthesis that was unsatisfactory due to excessive lacrimal gland secretion and a hypersensitivity reaction to silicone adhesive. Post-operative radiation included high exposure of the nasal floor which precluded placement of dental implants in the region. The zygomatic bones were utilized for anchorage. Due to patient hesitation for further surgery and risk of visible scars, a guided approach using CT imaging and real time navigation surgery was proposed and accepted. Two zygomatic implants were placed and provisionally restored with a bar retained nasal prosthesis. The method of surgery allows temporary restoration of the cosmetic defect in a timely fashion.

Poster 17

PROSTHETIC REHABILITATION OF MAXILLARY DEFECT DUE TO MUCORMYCOSIS

Voltidi, Eleni *, Muller Olivia Dds, Carr Alan Dmd, Limchoa Jenny Dds
Mayo Clinic
Maxillofacial Prosthetic and Dental Oncology Department of Dental Specialties
Rochester, MN, United States

Keywords: mucormycosis, zygomatic implants, interim restorations

Case Presentation: In this case of maxillary mucormycosis with extensive surgical debridement, restoration was performed with carefully sequenced extractions and implant placement. With this staged approach, the patient was able to use interim removable restorations throughout the process, never having to go without maxillary teeth. Although function was not restored in the interim stages, esthetics and speech were effectively maintained. This rare disease process posed unique treatment planning dilemmas, leading to a uniquely staged plan. This case also demonstrates how zygomatic implants can facilitate challenging rehabilitation of large defects.

Poster 18

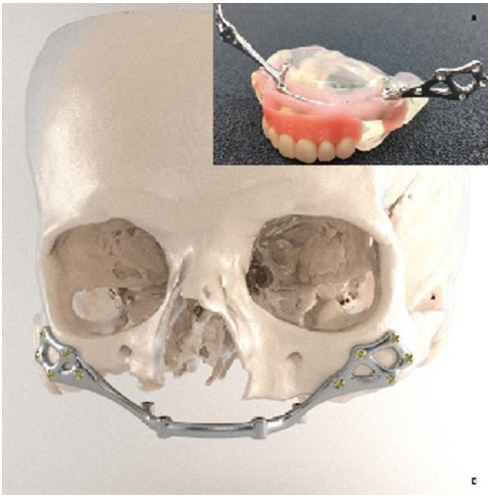
PATIENT-SPECIFIC SUB-PERIOSTEAL ZYGOMA IMPLANT FOR PROSTHETIC REHABILITATION OF LARGE MAXILLARY DEFECTS AFTER ONCOLOGICAL RESECTION

Vosselman, Nathalie *, Merema, Bram; Schepman, Kees-Pieter; Raghoebar, Gerry
University Medical Center Groningen
Department of Oral and Maxillofacial Surgery, University of Groningen and University Medical Center Groningen
Groningen, Netherlands

Keywords: zygomatic implant, sub-periosteal, maxillary obturator

Case Presentation: A 74-year-old woman needed a subtotal bilateral maxillectomy due to a squamous cell tumour of the palate. Immediate and secondary reconstruction of the defect was not feasible, so the defect was closed with an obturator prosthesis wired to the zygoma complex. To improve the severely impaired speech and swallowing, a patient-specific sub-periosteal implant (psSPI) was designed that matched the remnants of the zygoma complex. First, the patient´s post-surgical anatomy was visualized

through segmentation of pre- and post-maxillectomy CT data. Also the radiation dosages were included, to plan screw positioning in the low dosage areas. Next, based on this data a customized zygoma-supported framework was designed to support the obturator prosthesis. Surgical guides for intra-operative navigation were designed and 3D-printed, along with an obturator prosthesis to fit the planned outcome situation. The preoperatively manufactured psSPI and obturator prosthesis matched the per-operative conditions. The post-operative results were favourable; within a week after surgery the patient could speak and swallow normally without nasal leakage. No problems occurred during follow-up. These results indicate that a psSPI-retained prosthesis can be considered to restore speech and oral functioning in cases with largely compromised maxillary bone anatomy accompanied by impaired oral functioning and no feasible conventional reconstruction options.



Poster 19

VIRTUAL PLANNING FOR SURGICAL AND PROSTHETIC REHABILITATION IN A FIBULA FREE FLAP: A CASE REPORT

Wagner, Elyse *, Rosen, Evan
Memorial Sloan Kettering Cancer Center
Maxillofacial Prosthetics
New York, NY, United States

Keywords: computer aided design, Free Flap reconstruction

Case Presentation: The purpose of this presentation is to demonstrate the course of care for a patient where virtual planning was utilized to facilitate resection and reconstruction of a locally advanced right parotid gland carcinoma. Ablative and reconstructive surgery was completed simultaneously with a segmental mandibulectomy, fibula free flap reconstruction and endosseous implants. The patient then underwent radiation therapy and was restored after the completion of oncologic treatment with a definitive mandibular resection prosthesis. The prosthesis was a digitally designed Hader bar. Using this digital workflow, treatment time for oral rehabilitation was approximately 6 months. This treatment approach can be applied to patients undergoing oncologic surgical treatment regardless of disease etiology to expedite the course of care.

notes

notes

notes

notes

notes

Our Mission

We are an association of prosthodontists who are engaged in the art and science of maxillofacial prosthetics. Our mission is to accumulate and disseminate knowledge and experience; and, to promote and maintain research programs involving methods, techniques and devices used in maxillofacial prosthetics. The Academy is devoted to the study and practice of methods used to habilitate esthetics and function of patients with acquired, congenital and developmental defects of the head and neck; and of methods used to maintain the oral health of patients exposed to cancer-cidal doses of radiation or cytotoxic drugs.

Cover Artwork Generously Provided By
Crystal Moll

American Academy of Maxillofacial Prosthetics
RES Seminars
4425 Cass St., Suite A
San Diego, CA 92109 USA
T. 858-272-1018
F. 858-272-7687
aamp@maxillofacialprosthetics.org
www.res-inc.com
www.maxillofacialprosthetics.org