



MIDWEST SOCIETY OF PERIODONTOLOGY NEWSLETTER

MIDWEST SOCIETY
OF PERIODONTOLOGY
2017-2018
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PRESIDENT'S MESSAGE

Greetings from Ann Arbor, Michigan!

After another one of our signature "Midwest Winters," spring is just around the corner. First of all, I would like to thank all of you for the opportunity to serve as President of the MSP for the upcoming year!

The 60th MSP annual meeting was successfully held from February 24 to February 26 at our favorite venue, Renaissance Downtown Chicago Hotel, hosting a number of attendees and exhibitors throughout the Midwest region. This fantastic event could not have gone any better thanks to the leadership of our Executive Director, Dr. Greg Fauth, the Immediate Past President, Dr. Paula Weistroffer, and the Program Chair, Dr. Michael Franzman. On Friday, February 24th, the workshop on "Essentials in Piezosurgery" led by Dr. Homa Zadeh was well-regarded by the participants, exhibited by the energy and enthusiasm to learn. Over the next two days, Saturday and Sunday (February 25th and 26th), hundreds of attendees enjoyed and supported the main scientific program which consisted of two excellent topics, "Surgically Facilitated Orthodontic Therapy: An Interdisciplinary Approach" by Drs. George Mandelaris and Brian Vence, and "The Oral-Systemic Periodontal Practice" by Daniel Bobrow. Also, the graduate student research forum, chaired by Dr. Hsun-Liang (Albert) Chan, was very dynamic and drew much attention and a positive response from the audience. Congratulations and many thanks to all presenters, judges, organizers, sponsors, and participants who made for a successful and exciting meeting.



In addition to the workshop, research forum, and main scientific program, the annual meeting offers many other programs such as the Student Outreach Program. This year's Student Outreach Program was organized and moderated by Drs. Andre Paes and Yusuke Hamada. The presenters were Drs. Vanchit John ("Suggestions to Residents Who are Seeking an Academic Position"), Jeff Wang ("Faculty Position Application, Life as a Junior Faculty, and Career Opportunities for an International Resident in the US"), Eddie Morales ("Transitioning from Resident to Private Practitioner"), and Allison Marlow ("Preparations and Challenges in Planning Career as a Senior Resident"). Students who attended the program reported that it was very informative and helpful in many aspects on understanding our profession and planning their future careers. The board of the MSP will put every effort to keep the program wonderful again for the next year and future years by providing meaningful information to our student members.

It is never too early to plan for next year's annual meeting which will take place on February 23rd to 25th, 2018, at the Renaissance Downtown Chicago Hotel. Several world-renowned speakers have kindly agreed to join and share their expertise and knowledge with our members for the 2018 MSP annual meeting. Dr. Diego Velasquez will be leading the Friday workshop on "Microsurgery." Attendance is limited, so I would advise to plan ahead before it is sold out. Drs. Edward Pat Allen and Homa Zadeh will be main podium speakers on the topic of "Periodontal/Peri-implant Plastic Surgery" on Saturday, and Dr. Donald Clem will be speaking on "Management of Peri-implant Complications" on Sunday morning. Please mark these dates on your calendar because I am highly confident that the 2018 MSP annual meeting will be outstanding and provide tremendous benefits to our members.

We, the Board and Committee members of the MSP will do our best to serve and stand for its members. Please let us know anytime if you have any questions, suggestions, concerns, or any exciting news to share. Thank you again for giving me the privilege to serve you. I am very much looking forward to working with you all.

Wish you all the best!
TJ Oh



AWARD TO THE PAST PRESIDENT

Dr. Tae-Ju Oh (R), Ann Arbor, MI, President Midwest Society of Periodontology presents Dr. Paula Weistroffer (L), Iowa City, IA, Immediate Past President with a plaque of appreciation.

AAP ELECTIONS

The AAP Elections are during the month of June, 2017

District 4 ballots will have options for:

SECRETARY-TREASURER

Stephen Meraw, Michigan
Jimmy Wilson, Florida

ABP DIRECTOR (VOTE FOR ONE IN EACH GROUP)

David Deas, Texas
Rodrigo Nieva, Florida

Arnold Freeman, Pennsylvania
Charles Powell, Colorado

DISTRICT 4 TRUSTEE (VOTE FOR ONE)

Vanchit John, Indiana
Kirk Noraian, Illinois

GENERAL MEETING SUPPORT

We want to express our thanks to the exhibitors who support the Midwest Society of Periodontology by participating in our annual meeting. We appreciate their support of our Society!

SPONSORS

BioHorizons
ClaroNav
Community Tissue Services
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Dentsply Sirona Implants, North America
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Snoasis Medical
Straumann USA
Sunstar Americas, Inc.
TePe Oral Health Care, Inc.
Treloar & Heisel, Inc.
Zimmer Biomet

THANK YOU!

RESERVE THE DATE!

61th MSP Annual Meeting
February 23-25, 2018

RENAISSANCE HOTEL
Chicago, IL



Dr. George Mandelaris (L) and Dr. Brian Vence (R) spoke all day on Saturday regarding “Surgically Facilitated Orthodontic Therapy (SFOT), An Interdisciplinary Approach”. Their presentaiton was sponsored by ClaroNav, Geistlich Biomaterials and BioHorizons.



Dr. Homa Zadeh presented Friday at the Limited Attendance Lecture on “Essentials in Piezosurgery”. His presentaiton was sponsored by Piezosugery, Inc.



Current AAP President Terrence Griffin (above) gave the opening remarks on Saturday morning.



On Sunday morning, Mr. Danny Bobrow, MBA (L) presented, “The Oral Systemic Periodontal Practice”.

RESEARCH FORUM ABSTRACTS

EFFECT OF INTERLEUKIN-4 POLYMORPHISM AND SEVERITY OF PERIODONTAL DISEASE ON TREATMENT OUTCOME

Dr. Georgios S. Chatzopoulos
University of Minnesota - Department of Developmental and Surgical Sciences

Background

Genetic polymorphisms are commonly associated with altered transcriptional activity and possibly make individuals more susceptible to periodontal disease development, increased disease severity and poor treatment outcome.

Objective

The aim of this study was to investigate the association of an Interleukin-4 (IL-4) gene polymorphism and severity of periodontal disease with the outcomes of non-surgical periodontal therapy (NSPT) in a Caucasian population.

Methods

Sixty-seven patients diagnosed with chronic periodontitis (CP) were grouped according to genotype and severity status as susceptible (SCP)/non-susceptible (NSCP) and mild-moderate/severe CP, respectively. Severity was characterized on the basis of the amount of clinical attachment loss (CAL). Patients with at least three teeth exhibiting ≥ 7 mm CAL in at least two different quadrants were diagnosed with severe CP. All individuals were clinically evaluated prior to and 45 days after NSPT by a single periodontist, who was blind to the genotype status. Blood samples were collected at baseline from the individuals and genotyping of the polymorphism in IL-4 (-590C/T) gene was performed by polymerase chain reaction. Age, gender, smoking status and number of missing teeth were also recorded. Multivariate analysis and mixed analysis of variance were performed to evaluate the differences of the clinical parameters between the groups at the same and different time points, respectively.

Results

A total of 67 patients mean aged 47.6 ± 9.7 years were included in the study. The sample included 52.2% females, 58.2% non-smokers and 61.2% were diagnosed with severe CP. Following DNA separation and genotyping, 79.1% were homozygous carriers of the IL-4 -590C, while 1.5% were carriers of the IL-4 -590T-allele. Smoking was statistically significantly associated with the severity of periodontal disease ($p=0.049$), while there was no difference between the IL-4 genotypes (CC,CT,TT) and severity ($p>0.05$). Between-groups multivariate analysis of variance showed that there was a statistically significant difference between IL-4 SCP and NSCP with mild/moderate and severe CP on the combined depended variables at baseline (probing pocket depth, clinical attachment loss, bleeding on probing and number of missing teeth) with $p=0.04$. When the results for the depended variables were considered separately, none of them reached statistical significance after proper adjustment. NSPT reduced all studied parameters to all participants ($p<0.001$).

Conclusion

Although NSPT resulted in statistically significant improvement in the examined periodontal parameters, NSPT was not associated by the SCP genotypes and disease severity. Further studies are required to evaluate the combined effect of genetics with systemic, environmental and demographic parameters.

RESEARCH FORUM ABSTRACTS

TWO SIDES OF A COIN: METAGENOMIC ANALYSIS OF CHRONIC AND AGGRESSIVE PERIODONTITIS

Dr. Khaled Altabtbaei
The Ohio State University, Columbus, OH

Background

It is well established that Chronic Periodontitis (CP) and Generalized Aggressive Periodontitis (GAP) differ primarily in their rates of progression. Although dysbiotic microbial communities underlie the etiologies of both these disease, the prevailing paradigm of microbial similarity between the two conditions does not sufficiently explain this differing progression.

Objective

The purpose of the present investigation was to use whole genome shotgun sequencing to compare the subgingival microbiomes of CP and GAP with respect to community structure, membership and function.

Methods

Subgingival plaque samples were collected from shallow (< 4 mm; no BOP) and deep sites (\geq 6 mm) in 25 patients with CP, 17 patients with GAP, and 25 periodontally healthy individuals with no history of systemic disease, periodontal treatment, smoking or recent antibiotic use, or current pregnancy. Whole-genome shotgun sequencing was performed using the Illumina-platform, generating 471 million total sequences. Filtered sequences were analyzed using the MG-RAST pipeline and Kraken for functional subsystem classification, and taxonomic identification. Statistical analysis was performed using parametric tests adjusted for multiple comparisons.

Results

Shallow and deep sites of subjects in both CP and GAP groups were taxonomically and functionally similar. Deep sites of GAP demonstrated significant overrepresentation of genes related to RNA processing and modification, and sporulation when compared to health ($p < 0.05$, FDR adjusted Wald Test). Genes encoding for carbohydrate metabolism were generally underrepresented, except for those related to fermentation and methanogenesis. Taxonomically, patients with GAP were enriched for species belonging to the genera *Treponema*, *Aggregatibacter*, *Porphyromonas*, and *Prevotella*. The microbiomes of CP and GAP subjects were taxonomically and functionally distinct (ANOSIM, $P < 0.008$). Overall, out of 5160 core genes, 1667 were uniquely identified in GAP subjects, while 3493 were common to both CP and GAP. These unique genes represented 28 major functional categories related to a variety of metabolic and virulence-related genes. More than 50% of microbial functions were common to 80% or more of individuals with GAP while less than 40% of functions were shared by subjects with CP.

Conclusion

CP and GAP are associated with global dysbiosis of the subgingival microbiome, rather than site-specific shifts. Individuals with GAP demonstrated expanded functional core capabilities than CP, however, they also demonstrated greater microbial homogeneity both in community membership as well as function. CP and GAP appear to be microbially distinct entities, which may serve in part to explain their pathogenesis.

RESEARCH FORUM ABSTRACTS

TUBEROSITY VS PALATAL DONOR SITES FOR GINGIVAL GRAFTING: SPLIT MOUTH STUDY

Dr. Peter Amin
Case Western Reserve University, Cleveland, OH

Background

Mucogingival surgery has an impact on patients in terms of maintaining periodontal health and esthetics. Soft tissue grafts (STG) were introduced to address mucogingival deformities such as gingival recession and root coverage (RC). The donor site (DS) for harvesting STG usually is either from the palate (anteriorly) or the tuberosity (posteriorly).

Objectives

The purpose of this clinical study was to compare the difference in the postoperative outcome between the two DS for either free gingival grafts (FGG) or RC using coronally advanced flap and connective tissue grafts (CTG).

Methods

Twenty healthy nonsmokers were recruited for the study where bilateral STG were indicated. Harvested grafts in the same patient are prepared at comparable size. Of 10 patients who required FGG, 10 grafts were taken from the tuberosity and 10 from the palate. The protocol for 10 patients who required CTG matched the foregoing arrangement. Postoperatively, amoxicillin 500mg t.i.d for 7 days was prescribed for every patient as well as ibuprofen 800mg when needed. The following criteria were assessed to evaluate the difference between grafts harvested from the tuberosity and

palate at 2, 4, and 8 weeks postoperatively regarding:

- Pain levels using a subjective score of 0-10 (0=no pain, whereas 10=severe pain)
- Progress of wound healing in the tuberosity and palatal DS.
- Length, width, and thickness of augmented recipient sites (RS) and percentage of RC at 8 weeks post operatively.

Pre-, intra-, and post-operative photographs were compared by a panel of blinded periodontists to assess clinical outcome. Statistical analysis of the data using paired t-test was used to determine if there is a significant difference between palatal and tuberosity grafts in both DS and RS.

Results

Statistical analysis of pain experience and clinical outcome of FGG and CTG harvested from tuberosity or palatal DS shows:

1. The pain level in tuberosity is less than in the palatal DS during the first two postoperative weeks. Out of total 10 points the mean scores are 2.7 ± 2.2 vs 6.1 ± 2.7 , respectively ($P < 0.05$).
2. Gingival thickness resulting from the tuberosity grafts is greater than that from the palatal sites. The mean thickness is 2.9 ± 0.27 vs 2.0 ± 0.15 mm, respectively ($P < 0.05$).
3. No significant difference between mean percentage of RC resulting from tuberosity and palatal grafts (0.67% vs 0.62%, respectively).

Conclusion

Free gingival grafts and connective tissue grafts harvested from the tuberosity are preferable over the palatal DS, especially when gingival augmentation and minimal postoperative pain are the primary goals.

GRADUATE STUDENT RESEARCH FORUM

At the February meeting of the MSP in Chicago the finalists of the Graduate Student Research Forum were all presented plaques and \$500 checks at the awards ceremony and reception. The Research Forum and awards ceremony are supported by a generous grant from Sunstar Americas, Inc.

FIRST PLACE

Dr. Peter Amin
Case Western Reserve University,
Cleveland, OH

HONORABLE MENTION

Dr. Dr. Georgios S. Chatzopoulos
University of Minnesota - Department of
Developmental and Surgical Sciences

Dr. Dr. Khaled Altabtbaei
The Ohio State University, Columbus, OH

POSTER COMPETITION FIRST PLACE

Dr. Sukirth Ganesan
The Ohio State University, Columbus, OH

Electric Cigarettes Exacerbate Virulence
Potential in the Disease - Naïve Subgingival
Microbiome



Participants of the Oral Research Competition, shown from left to right. Dr. Albert Chan, Chair, Research Forum Chairman, Dr. Nabil Bissada, Mr. Mark Carlascio from Sunstar Americas, competition winner Dr. Peter Amin, Dr. Georgios Chatzopoulos and Dr. Khaled Altabtbaei.



Poster Competition Participants, shown from left to right. Dr. Albert Chan, Chair of the Research Forum, Dr. Christopher Hutton, Mr. Mark Carlascio, Sunstar Americas, Dr. Pimchanok Sutthiboonyapan, Dr. Carlos Garaicoa-Pazmino, Dr. Rachel Sheridan and winner Dr. Sukirth Ganesan.

THE MIDWEST SOCIETY WISHES TO ACKNOWLEDGE SUPPORT

Thank you to Event Sponsors for the 2017 meeting.

SUNSTAR AMERICAS

Graduate Student Research Forum and the Awards Ceremony

PIEZOSURGERY, INC.

Dr. Homa Zadeh
Friday's Limited Attendance Meeting Program

GEISTLICH BIOMATERIALS, CLARONAV AND BIOHORIZONS

Dr. George Mandelaris and Dr Brian Vence's Saturday Scientific Session

DENTSPLY SIRONA IMPLANTS NORTH AMERICA

Meeting Programs



SAVE THE DATE!

61th MSP Annual Meeting, February 23-25, 2018

RENAISSANCE HOTEL
Chicago, IL

NEW MEMBERS

Branko Alavanja, South Bend, IN
Darrin Combs, Indianapolis, IN
Charles C. DiFranco, Pak Ridge, IL
Jingyuan Fan, Aurora, IL
Yung-Ting Hsu, Detroit, MI
Theodoro Katzaros, Iowa City, IA
Christopher Ludden, Appleton, WI
Shahir Malek, St. Louis Park, MN
Adam McClellan, Overland Park, KS
Magnolia Pedraza, Forsyth, IL

Brandan Peterson, West Des Moines, IA
Alexandra Plonka, Ferndale, MI
Angeliki Polymeri, Ann Arbor, MI
Pota Rakes, Dearborn, MI
Michael Ramos, Rochester Hills, MI
Carol Walters, Indianapolis, MI