

“Dental Myths and Controversies”

The Fourth Annual Practice-based Research in Oral Health (PROH) conference was held at the World Trade Center on Friday, November 2, 2007. Below is a summary of the continuing education course presented by Oregon Health & Science University faculty.



“Do All 3rd Molars Need to be Removed?” by **Leon A. Assael, D.M.D.**, Professor and Chairman of the Department of Oral and Maxillofacial Surgery and Director of the Oral and Maxillofacial Surgery Residency Program, OHSU.

Dr. Assael presented the pathology associated with retained 3rd molars and the systemic impact of the 3rd molar pathology. Based on the scientific literature, Dr. Assael suggested that the decision to retain 3rd molars could be justified for several reasons: absence of caries, absence of plaque and bleeding/ drainage on probing, and a clinical finding of periodontal probing depths that are less than 3 mm. Also the 3rd molars have to be in occlusion with opposing teeth and have a keratinized, attached gingival tissue to surround the tooth.



“Bonded vs GP Obturation” and **“One vs. Two Appointment Endo”** by **J. Craig Baumgartner, D.D.S., M.S., Ph.D.**, Professor and Chairman of the Department of Endodontology and Director of the Advanced Education Program in Endodontics, OHSU.

Dr. Baumgartner evaluated the use of bonding agents in root canal obturation. He discussed some of the limitations of dentin bonding in a root canal, like polymerization shrinkage and infiltration and deterioration of the resin bond because of prolonged etching time. Also the one versus two appointment system for endodontic treatment was analyzed. The latest scientific research shows no significant difference between the outcomes of endodontic treatment performed in one versus multiple appointments. Dr. Baumgartner underlined the need for future research for improved bonded root filling materials.



“Lasers vs. Other Periodontal Treatment Modalities” by **Winthrop Carter, D.D.S.**, Chairman of the Department of Periodontics, Director for the Advanced Education Program in Periodontics, and an attending periodontist at OHSU Hospitals & Clinics and VA Medical Center, Portland, Oregon.

Dr. Carter presented an in-depth review of the literature published in the last 15 years and critically analyzed the scientific quality of the studies. He concluded that there is insufficient evidence to suggest that any specific wavelength of laser is superior to traditional modalities of therapy. Lasers are being marketed as a high tech dentistry option but treatment outcomes for subgingival treatment of chronic periodontitis are no better than with conventional therapy.

Dr. Carter’s final suggestions were that a general dentist might buy a laser for soft tissue procedures external to the gingival sulcus and for other general dentistry applications, but not for LANAP (Laser Assisted New Attachment Procedure), scaling/root planing, or as a substitute for flap surgery.



“Do 3rd Molars Move Teeth and Cause Relapse Following Orthodontic Treatment?” and **“Does Invisalign Really Work?”** by **David Covell, D.D.S., Ph.D.**, Associate Professor and Chair of the Department of Orthodontics. His present research interests include animal models and clinical studies investigating biological aspects of facial growth and orthodontic tooth movement.

Dr. Covell discussed the most significant publications of the last 30 years regarding the effect of 3rd molar eruption on late lower incisor crowding and relapse of orthodontic treatment. The reviewed studies underlined that the rationale to remove 3rd molars in an attempt to reduce the level of crowding of the lower anterior teeth is scientifically unproven. Dr. Covell also discussed the efficacy of the Invisalign System in tooth movement and reviewed some of its advantages, which were mainly related with intra-arch mechanics (improving alignment, resolving crowding and spacing for < 5 mm cases). The inter-arch mechanics were included in the weaknesses category of the Invisalign System (occlusal contacts open, increased overjet).

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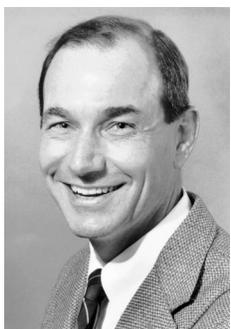
“Implants vs. Fixed Partial Dentures” by Scott R. Dyer, D.M.D., M.S., Ph.D., Part-time Assistant Professor in the Department of Restorative Dentistry in the divisions of Biomaterials and Biomechanics, and Prosthodontics. He maintains a private practice limited to fixed, removable and implant prosthodontics.

Dr. Dyer presented a summary of the considerations when treatment planning for partial edentulism and how to optimize the results of prosthodontic treatment. The general goal of the dentist has to be to maximize the functional and aesthetic outcome of each case, by taking into consideration evidence-based results of the last decades of dental research. He advised dentists to do first a very comprehensive assessment of the bone, soft tissue, adjacent teeth and position of the edentulous space, and then consider the three basic treatment options available: fixed partial denture, removable partial denture and implant-supported restoration. The review of the literature shows extraordinary results for implant restorations, which have a very high longevity (96 - 97% at 11-16 years) and a 10-year survival rate of the adjacent teeth of 99.5%. He finally reviewed for the audience the clinical steps for an implant retained fixed restoration, pointing at the multiple advantages the procedure has to offer in spite of the potential high cost.



“Immediate vs. Delayed Loading of Implants by Sam El-Ebrashi, B.D.S., M.S., currently in a private practice limited to implants and prosthodontics and formerly an OHSU Assistant Professor in the Division of Prosthodontics.

Dr. El-Ebrashi presented his professional opinion on immediate versus delayed placement and loading of implants, and their survival rates. After reviewing the literature, he summarized some of the reasons a clinician might not choose to immediately place and load an implant: active infection, lack of primary stability, damage to the buccal plate and soft tissue, and occlusal overload to the temporary prosthesis. Regarding the healing of immediate and delayed implants sites, his review of the literature showed no significant differences in radiographic crestal bone levels, or probing of pockets at immediate, delayed, or late implant sites with observations between 1 - 4.5 years. He concluded that implants placed into fresh sockets fail to prevent physiologic bone modeling and remodeling because an inevitable small amount of bone loss occurs whether implants are immediately placed or not. The periodontal biotype is also critical regarding peri-implant tissue response. A thick biotype is less prone to recession, and tissue preservation is more difficult than in a thin biotype.



“Do Emerging Technology Devices More Accurately Diagnose Intraoral Lesions?” by F. James Kratochvil, D.D.S., Associate Professor and Chairman of the Department of Pathology. He also serves on the faculty of the School of Medicine in the Department of Pathology. He is director of the OHSU Oral Pathology Biopsy Service and has an active practice seeing clinical oral pathology patients.

Dr. Kratochvil discussed the capacity of emerging technology devices in accurately diagnosing cancerous oral lesions. Dr. Kratochvil critically analyzed the pros and cons of some of the marketed devices (ViziLite, Velscope) for oral cancer screening and commented on the lack of evidence-based data to support the use of these highly marketed devices. In his concluding remarks, he praised dental professionals for their continuous efforts to improve their clinical skills for oral cancer detection and he was optimistic that the increased interest and effort will improve detection and prognosis in the future.