

Our office continues to offer 3D scanning for your diagnostic needs. Patient cost per scan is \$125. Images are sent to your office on CD with accompanying viewing software - printed images available on request.



Conventional Periapical Film

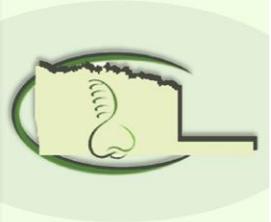


Thin Cross Sections with CT Scan



# Advanced Dental Imaging Services

Implant Planning  
TMJ Evaluation  
Impactions  
Endo Diagnosis  
Ortho Planning



ENHANCING THE WAY YOU SEE PATIENTS.

## Periodontal Implant Center

Jacob D. Hager, DDS, MS

8203 S. Walker

Oklahoma City, OK 73139

# Periodontal News



A Recurring Publication from the Periodontal Implant Center ♦ No. 11, January 2013  
Jacob Hager, DDS, MS ♦ Board Certified by the American Board of Periodontology

## Did You Know?

Our office offers all patients the option of sedation in conjunction with their periodontal treatment recommendations. Three separate levels of sedation are available:

- 1) Oral conscious sedation with triazolam (Halcion)
- 2) Intravenous conscious sedation most typically with a combination of midazolam (Versed), nalbuphine (Nubain) and promethazine (Phenergan)
- 3) General anesthesia performed in-office by a licensed dental anesthesiologist Dr. Joe Seay or Dr. Ron Billman.

Approximately half the patients referred to our office for treatment elect some form of sedation. This is a decision that, in most all cases, is left to the personal preference of each individual patient – allowing them to have the final say regarding their level of sedation during therapy.

## Contact Us

8203 S. Walker  
Oklahoma City, OK 73139

405-636-1411  
800-525-9355  
405-636-1197 fax

email:  
okperioimplantcenter@yahoo.com

## - Journal Watch - Featured Article

F. Sgolastra et al. **Effectiveness of Systemic Amoxicillin / Metronidazole as Adjunctive Therapy to Scaling and Root planing in the Treatment of Chronic Periodontitis: A Systematic Review.** *Journal of Periodontology. Vol 83. No 10, 2012*

Research has shown that bacterial growth in the oral cavity occurs almost exclusively as a matrix-enclosed biofilm, and without mechanical disruption, these bacterial communities are profoundly resistant to both host defenses and antibiotics. Therefore, traditional approaches to treating chronic periodontitis with mechanical therapy aimed at removing subgingival bacterial biofilms and calculus deposits remains the unquestionable gold standard for sound periodontal therapy.

The article noted above is a review of the current literature database on the benefits of systemic antibiotics used in conjunction with mechanical root planing. The benefit of such antibiotic therapy is theorized to assist with the eradication of bacteria embedded in the gingival tissues, free floating in the gingival sulcus or remnants of the disrupted biofilm that could increase the chances of recolonization of the periodontal pocket after treatment.

Of 481 initially reviewed studies, the top four random clinical trials that compared groups of patients receiving scaling and root planing alone compared to those receiving scaling and root planing with the addition of systemic antibiotics Amoxicillin and Metronidazole were used for this review. Outcome variables included changes in pocket depths, clinical attachment levels, bleeding on probing, supuration and bacterial cultures from the pockets. *(continued on page 3)*

## Patient Selection for Root Coverage Grafting

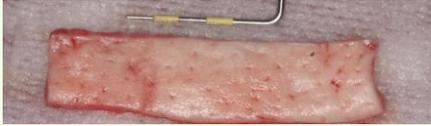
There are many questions that must be answered prior to making the decision to treat an exposed root with a tissue graft - recession alone may not be a sufficient indication for treatment in all situations. Below are simple guidelines to use when considering patients for root coverage grafting.

- **Esthetic complaint:** Particularly across the anterior maxilla, if a patient is complaining of a “long tooth” due to recession, a root coverage graft may be esthetically preferable to a class V composite.
- **Thermal complaint:** For areas without interproximal bone loss, root coverage grafting can predictably reduce thermal sensitivity.
- **More than 4mm of recession:** This amount of recession would indicate a facial bone level 6mm from the CEJ – an amount of bone loss equal to severe periodontal disease. Mobility now becomes a serious concern if the area suffers additional attachment loss and tissue grafting should therefore be considered.
- **Genetically thin biotype with generalized recession:** A small number of patients have attached gingiva that is so thin and friable that facial attachment levels will not hold up to normal wear and tear from mastication and tooth brushing.
- **Shallow root caries:** As an option to a composite restoration, tissue grafting can sometimes offer a better esthetic result and better long term stability for esthetic sites with shallow class V caries.

Two key points to remember when managing and referring patients with recession defects: 1) complete root coverage is only possible if interproximal bone levels are ideal, and 2) long term stability of these areas requires correction of any factors that initially contributed to the recession defect (such as aggressive tooth brushing)

## A Review of Tissue Grafting Options

27 year old male with an esthetic complaint of recession involving maxillary anterior teeth. Treatment was rendered with a single procedure utilizing a donor tissue allograft.



50 year old female with esthetically compromising gingival defect involving tooth #9. Shallow root caries is also noted. Treatment options include a class V composite that would not address the gingival asymmetry, or a connective tissue graft that can cover the root after caries removal and also establish proper gingival esthetics. A palatal graft was utilized for this case.



54 year old female with a chief concern of progressive gingival recession. Traumatic toothbrushing was suspected and addressed with oral hygiene counseling. A tissue allograft was utilized for this case placed under a coronally advanced flap. *Note the full interproximal papillas and lack of interproximal bone loss. Note also the residual cervical defects #12 & #13 represent enamel lost from cervical abfraction.*



When attached gingiva is completely absent, a traditional gingival graft is still the treatment of choice to prevent further attachment loss. In some cases, such as the one shown here, root coverage can be achieved with a gingival grafting procedure. Other times, root coverage is not possible.



Many patients have a lack of attached gingiva across the mandibular arch - especially in the anterior segment. Partial root coverage was achieved in this case with a traditional gingival graft while also making the biotype of the entire segment much thicker and less prone to future attachment loss.



**- Featured Article -**  
*(continued from page 1)*

The dosage regimen of the Amoxicillin and Metronidazole varied slightly between the studies for the treatment groups, but is most often prescribed as 250mg every 8 hours for 7 days, beginning 1 day prior to treatment (*for both antibiotics*).

The measured outcome variables (*pocketing, attachment levels, bleeding, suppuration and culturable bacteria*) were positive for the groups receiving the Amoxicillin and Metronidazole and root planing compared to the control groups (*root planing alone*) in nearly all the studies. The differences were statistically significant for reductions in probing depth (improvement average of 0.43mm per site) and attachment gain (improvement average of 0.21mm per site) between the two groups in favor of those receiving antibiotics with root planing.

The conclusions of this study are that the adjunctive use of Amoxicillin and Metronidazole may enhance the benefits of traditional non-surgical root planing.

**Personal Comments**

*Within my own practice, I limit the use of systemic antibiotics for those patients with aggressive or severe disease that present with pockets  $\geq 7$ mm, suppuration and abscess formation. Antibiotic treatment is always utilized in addition to some form of mechanical debridement. Without the mechanical disruption of subgingival biofilms, the benefits of an antibiotic would likely be very minimal. Most commonly, I use Amoxicillin and Metronidazole when utilizing antibiotics in conjunction with mechanical therapy. Long term, patients are always reminded that their compliance with daily plaque control, regular supportive maintenance and smoking cessation will far outweigh the benefits of any periodic antibiotic therapy.*



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## Customized Impression Copings

This is a new service provided by our office for those clinicians that would prefer to take the final abutment-level impression in their office. This protocol is also ideal for cases where tooth-supported restorations such as crowns or veneers are to be fabricated at the same time as the final implant restoration – when a single master impression is needed to transfer both the implant position and the adjacent prepared teeth to the lab.

As in the past, our office still provides the final customized implant abutments torqued to place (*Zirconia or Titanium*) with a provisional restoration. The custom impression coping is also provided that is CAD/CAM milled to precisely fit on the final abutment. This same piece must be utilized by your lab as the wax-base / burn-out coping to ensure an extremely accurate final restoration.



**Tooth #8 removed due to periodontal abscess associated with a radicular groove. Dental implant was placed immediately with a custom healing abutment to support the soft tissue contours during healing.**



**Custom Zirconia abutment with ideal contours and margin position is torqued to place and a lab-fabricated provisional restoration is seated in our office.**



**A custom impression coping (also made via CAD/CAM) can now be provided for an abutment-level impression by the restoring clinician. This gives the restoring dentist more control of the final impression process and eliminates the need for any torque wrenches or placement of subgingival components.**