November 2, 2002

In this newsletter I will review: (1) the **evolution of periodontal practice**, (2) **periodontal disease risk assessment**, (3) **critical factors in implant placement**, and (4) the **need for effective communication.**

The evolution of periodontal practice: Twenty years ago, gum grafts could not cover roots and implants were experimental. Now we predictably cover wide, tall recessions to the CEJ, and implants are as successful as crown and bridge. **What are we saying today?**

- "You can't grow papilla." (Currently grafting works only with wider, interproximal spaces. Papilla become larger if grafting is followed by moving roots together orthodonticly.)
- "Bone grafts don't work in furcations." (some success with Emdogain and flowable membranes)
- "Physicians are not referring patients with diabetes, pregnancy, or heart disease to their dentist for periodontal evaluation." (Over the next year I will send letters to OBs, etc. justifying referral.)

In September 2002 a committee of respected periodontists presented, **"A vision for periodontics in 2020."** They predicted continued periodontal disease treatment because people will be more health oriented and have longer life expectancies. They said that periodontics will evolve to an oral medicine model of practice. Physicians will refer to oral health care professionals. Periodontists will especially treat higher risk patients. The committee envisioned periodontists as the premier providers of oral plastic surgery, regeneration, tissue engineering, and implants.

In years past we have treated people as though all were equally susceptible to perioodontal disease. **Now we try to identify host characteristics associated with increased susceptibility.** Six mm pockets should not be ignored in anyone, because 6 mm pockets are not cleansible by the patient and are therefore anerobic and potentially pathologic. **A 35-year-old with 6 mm pockets is much more difficult to treat predictably than a 60 year old with 6 mm pockets.** Periodontal disease in a highly susceptible individual justifies: full mouth debridement within 48 hours, systemic antibiotics for 14 days, then Periostat tablets b.i.d. for 3 months, more effective daily site specific plaque control, a longer healing period, then microbial analysis (to insure that the microbial etiology is eliminated). **To the younger person with "aggressive periodontitis" we say,** "If a less susceptible person does half of what we ask, his gum disease is likely controlled; if you are less than 6 days a week with your home care, do not go subgingivally with your oral hygiene tools, or even miss one site consistently, you will likely have progressive disease."

On my examination form I have a section, **"Host factors".**
We check off the "Risk factors for periodontal disease" that pertain to that patient:
__Early onset __Very edematous __Smoking __Diabetes __Compromised host response __Microorganisms __Poor oral hygiene __History of periodontal disease __Occlusal trauma __Hormone deficient __Medications __Poor nutrition __Osteoporosis __Stress
At the end of the examination we summarize the patient's overall predisposition to periodontal disease by rating them 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 1 is "Very susceptible." 5 is "Average susceptibility." 10 is "Very resistant". Patients with higher genetic predisposition and more significant systemic or environmental risk factors have more demanding diagnostic and treatment requirements. At some point in susceptibility or severity of damage the determination needs to be made for referral to a periodontist. I appreciate these referrals.

Critical factors in implant placement:

- Implant placement in 3 dimensions should be **restoratively driven**.
- An **implant surgical guide,** with plastic teeth in the correct functional and cosmetic positions, guides the surgeon.
- **Computerized tomography** reveals bone in 3 dimensions in relationship to the final crowns (Oral & Maxillofacial Imaging Center, 7001 S. 900 E., $140 for 1 tooth + $30 per additional tooth, cash.)

- Adequate preclinical methods of diagnosis/prognosis/treatment planning can help us **avoid most compromised esthetic or functional restorative implant outcomes**.
- Identify **patient expectations** in advance and be sure they are realistic.
- The esthetic zone **goals should be the same for implants and other restorative options**. For example, gingival margins and gingival papilla around implants should be at the same level as on contralateral teeth. Thin, highly scalloped tissues around triangular teeth with high contact points are more challenging with implants. Choose the restorative option that best meets the goals.
- Before extracting a tooth verify that the **bone on the adjacent natural tooth** is not more than 5 mm from the apical edge of the contact area in order to predictably have a good papilla between implant and tooth. If greater than 5 mm consider supraerupting the natural tooth and the hopeless tooth orthodonticly to bring the bone down with the teeth. Another option is to make a temporary bridge so that the papilla is immediately supported by an ovate pontic.
- Ideal **placement of an implant in the esthetic zone:**
  Vertical: 2 to 3 mm apical to the faciogingival margin of the surgical guide (final crown)
  Mesiodistal: Not closer than 1 to 1.5 mm to a natural tooth or the papilla will be compromised.
  The smallest lateral incisor implant should be 5.5 mm diameter (1 + 3.5 + 1 mm).
  A smaller implant leaving more room for tissue favors a better papilla.
  Buccolingual: palatal to incisal edge
- Avoid **adjacent implants** in the esthetic zone. One implant and 1 ovate pontic indented into the ridge provide better esthetics. If it is necessary to do adjacent implants, they should be 3mm apart, or the papilla decreases.
- To place **an immediate implant** in an extraction socket the facial wall must be intact and 1+ mm in thickness. Methods are available to remove teeth without loss of bone. Although facial tissue is not reflected, one millimeter of facial tissue is lost. Often 1 mm can be taken off the contralateral tooth.
- The majority of implants require no **site development**. If site development is necessary it is best done before implants are placed. Predictability goes down as complexity goes up.
- It is ideal to create 25% more tissue than is needed. Horizontal **site development** is much easier than vertical development. The tools of site development-- bone blocks, particulate grafts under GBR membranes, and connective tissue grafts, have been the subjects of previous newsletters.
- Locate the **mandibular nerve** accurately and stay 2 to 3 mm away from it.
- If there is 5 mm of bone below the sinus, both **implant placement and sinus grafting** can be performed in the same surgery.

The **visual aid I am providing this year** is designed to help our patients understand the **challenges of placing implants in the maxillary posterior and mandibular posterior areas**. Included will be sample tomographies of these two areas.

As patient treatments become more complex, our communication becomes more valuable. **Upon referring a patient I am asking you to ask yourself, "Is there anything I need to communicate?"** Perhaps no note is necessary in the case of simple pocketing and bone loss, or recessions and tissue grafting. Then again, if you root planed the upper right quadrant before the referral, that would be valuable for us to know. The triplicate post card I have provided is probably the simplest means of communicating what we should know. **Please help us know how best to serve you and your patients by completing and sending to us the enclosed Referral Survey.**

Visit our new office any time. You and your staff are invited to the Holiday Openhouse of Redwood Dental Specialty Plaza, Wednesday December 11 from noon to 2:30 p.m.

Happiness is periodontics and implants!
Gerald (Jerry) Summerhays DDS, MS