The Patient as a Team Member—On the Receiving End

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It all began one Thursday evening in October Midway through dinner he bit down on a piece of bone and after hearing a snap began to experience discomfort in the maxillary left premolar region. Exploring the teeth one by one with his tongue it became obvious that the second premolar had fractured since there was no restoration in that tooth. The following day a periapical radiograph was obtained and confirmed the examining prosthodontist's diagnosis that, indeed the coronal part of the tooth had fractured through the central groove up to the root bifurcation. Inasmuch as there was no salvage, extraction was imminent

The decision now facing the treatment team involved the choice of replacement for the soon to be missing tooth in an otherwise intact natural dentition. Adjacently the first premolar was a virgin tooth and the first and second molars had been restored 50 years ago with Class I amalgams. Diagnostic casts confirmed that the Opposing occlusion involved an unrestored premolar and molar with a gold overlay restoration. Thus the choice a three-unit fixed partial denture or an implant-supported cast crown restoration. Because only a small occlusal amalgam restoration was present in the potential molar fixed partial denture abutment, the implant approach was selected. The remaining question was whether the implant could be placed at the time of tooth removal.

The surgeon answered that question soon after the odontectomy began. After draping the administration of a local anesthetic agent, and forceps removal of the coronal portion of the tooth, the preoperative prediction was realized. The roots of both the first and second premolars had 45-degree bends in their apical one third and despite the surgeon's skill and expertise, by the time the second premolar roots were retrieved, the alveolus was not an ideal site for implant placement. The wound was closed and left to heal for a better day

In June of the following year the operative site was well healed and a new radiograph revealed bone of quantity and such quality to prompt stage I implant placement. Having not previously experienced implant surgery especially in the second premolar area with the anterior wall of the maxillary sinus quite evident, the patient was a bit apprehensive. However with the radiographs the surgeon and prosthodontist were both reassuring in estimating that a 10- or 13-mm implant could be placed in the edentulous space and sinus buttress without exposing the sinus cavity

While the surgery was performed in an outpatient operatory, the sterile procedures employed were impeccable. Conditions were as in the hospital surgical suite and following an oral lavage with disinfectant by the scrub nurse,

administration of local anesthetic and draping the patient was in a secluded, dark environment to experience only the feel, sound and smell of the operating procedures. The mucosal incisions were painless and after the bone was properly exposed, preparation of the implant site began. First the round bur, then the spiral, and ultimately the tapping instruments were employed. While there was maxillary vibration, careful manipulation to assure guided handpiece direction, and the constant "slurping" sound of the aspirator tip picking up the copious flow of saline coolant, there was no pain

As the apical extension of the preparation was approached and the aspirator tip was inserted farther, the patient experienced a "fluttering" of what apparently was the sinus membrane... no pain, but a definite sensation and some apprehension as he thought of what might happen if the sinus was entered. However the surgeon and attending resident reassured the patient as they proceeded by informing him of the type of bone encountered, favorable angulation and length for the implant, and position of the threaded cylinder relative to the anterior sinus wall. The bone tapping procedure went slowly, but no feeling of cutting or gouging materialized. Only the "beeping" of the instrument panel when the handpiece was in reverse broke the relative silence of the scene, the same as when the surgical mount carried the 13-mm implant to place in the tapped site. The final hand torquing of the implant to place produced some feeling of "bone pressure" but no pain.

A cover screw was placed over the implant and the soft tissues were sutured. Following the placement of a sponge pack and Upon receipt of instructions for oral care, a prescription for 14 days of antibiotics, and follow-up appointment card, the patient was dismissed after the 1⁄-hour operation. Some 5 hours later, the patient had dinner With friends. The sutures resorbed and self-destructed within 8 days, so no immediate return visit was necessary. Second stage surgery was planned for later in the year providing, at least 6 months for maxillary healing.

As planned stage 2 surgery for abutment connection took place in December. Following administration of the local anesthetic agent, the surgeon used a punch procedure to expose the implant and permit the removal of bone that had overgrown a portion of the cover screw. With a clean seat for abutment attachment (as planned with the prosthodontist), a temporary healing abutment with length dictated by the adjacent mucosal thickness was connected to the implant. No further surgical treatment was required following a 2-week healing period.

After consultation with the patient to describe treatment options, the prosthodontist removed the healing abutment, placed a transfer coping on the implant, and made impressions for fabrication of the crown restoration. A ceramometal crown designed for cementation was the prosthesis of choice to accommodate implant alignment and facilitate maintenance. However provision was to be made during cementation to permit abutment screw access in the event crown removal was ever necessary. The crown casting was seated and metal occlusal

anatomy was adjusted to provide adequate clearance in eccentric positions before completing the ceramic procedures. Following crown cementation and sealing of the screw access with light-cure resin, the patient was dismissed with instructions for follow-up in 6 months, or earlier if problems occurred.

In June now 12 months following implant placement and 6 months following restoration loading, the patient returned for examination. He had known the advantages of gradual, selected loading and was aware that pin-prick-like sensations could occur early during chewing as a result of microfractures at the bone-implant interface (to be resolved during bone remodeling). The latter had not occurred nor had any sinus symptoms appeared during the subsequent 6-month loading period. New radiographs and clinical examination revealed less than 1 mm horizontal bone loss and no evidence of pathosis.To date the restoration has been successful!

Why all of this verbiage for the readers of this journal? By now you must be aware that the patient is *me* and my intention is to share my reaction to implant placement and restoration with those of you who have not experienced the procedure. If this event had to occur, it would have been more professionally advantageous for me to have experienced it more than a decade ago when I began treating patients with the implant modality. Certainly I would have been more profound and assured in my decision making and discussions with patients. I could have more adequately anticipated questions and better informed them in what to expect. However I was most fortunate to have knowledgeable surgical and prosthodontic colleagues who also have more expertise and have become more skilled as the result of their 10-plus years of additional clinical experience. As the *most important* member of the treatment team, the patient has and continues to benefit from significant advances in modern implant technology, availability and applications that have occurred since the early 1980s. I can personally attest to that!