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Case Presentation Made Easy

Cosmetic dentistry can be rewarding emotionally and financially. Patients don't always walk through the door requesting a cosmetic procedure; however, most practices see patients with posterior amalgams that are deteriorating, broken, or causing pain. Although a good amalgam does not need to be removed, if the amalgam is breaking down or causing problems, the patient should be evaluated to determine the cause of the problem. The most challenging part can be explaining the problems to patients in a way that they can understand and agree to the needed treatment. This article will describe

camera and an anatomical model work well for presenting dental conditions to patients. I use an intraoral camera (Reveal, Welch Allyn, Inc, Skaneateles Falls, NY, www.welchallyn.com) and an anatomical patient education model I created (DemoDent, DemoDent Inc, Troy, Mich, www.demo-dent.com).

Educating the Patient

Start by capturing an image of the tooth in question with an intraoral camera. The operatory should have a monitor where the patient can see it easily. Be sure the image captures the problem area—the occlusal cavity, the chip, or the failing amalgam restora-

tion, ask the patient how long ago it was placed.

Using the patient education model, show the patient the portion of the model that corresponds to his or her tooth. Then, have the patient hold it. With the DemoDent, the size of each segment (3.5 in) is large enough for the patient to grasp to better visualize his or her dental condition. In the author's experience, when most patients hold a piece of the model, they feel free to inspect it and ask further questions. In other words, they seem to get more involved with the codiagnosis process. If using the DemoDent, the instruction manual suggests patient-friendly words that can be used to describe conditions and their recommended treatments. Ask the patient what he or she may be thinking and if your explanation was clear. Review your recommendations for treatment and have your front desk coordinator schedule them for treatment.

“An intraoral camera and an anatomical model work well for presenting dental conditions to patients.”

the materials and methods the author has used to achieve higher case acceptance and patient understanding.

Many patients seem to think that if they have no pain, they do not have a problem. As dental providers our goal is to help patients understand their dental conditions so that they can be addressed before further problems develop. Pictures can be very persuasive when presenting dental problems and treatments to patients. An intraoral

camera and an anatomical model work well for presenting dental conditions to patients. I use an intraoral camera (Reveal, Welch Allyn, Inc, Skaneateles Falls, NY, www.welchallyn.com) and an anatomical patient education model I created (DemoDent, DemoDent Inc, Troy, Mich, www.demo-dent.com).

tion. Make sure the image is well focused and clear. After the image is captured and displayed on the screen, don't say anything for a moment. Let the patient look at it and see if he or she says anything. Usually the response is something like, “Is that my tooth?” Ask the patient if he or she noticed their dental condition before seeing it on the screen or if he or she felt anything different or unusual with the tooth. If a restoration is present in the

Case Study Presentation

A woman presented with discomfort in the upper right region of the mouth. Clinical examination and radiographs revealed that tooth No. 4 had a large amalgam restoration that was fractured with recurrent decay beneath the restoration extending near the pulp (Figure 1). The patient complained of discomfort on biting hard foods and

occasional sensitivity to cold. After displaying the intraoral images of the failing amalgam restoration on the monitor, I asked the patient how long ago the amalgam restoration was placed. The patient answered that it was hard to remember exactly, but she thought it

followed my suggested script to present the clinical information in a patient-friendly manner. I explained:

“Nothing lasts forever, especially when it is subject to the harsh conditions in the mouth, such as exposure to hot and cold foods and beverages,

reaches the nerve of the tooth. Our experience with replacing cracked fillings has shown that it is best to remove the filling and clean out the decay before the nerve is affected. If there is enough tooth structure remaining after the clean out, then a new filling material can be placed. If there is little tooth structure remaining after clean out, then the tooth may need a core and crown to restore it to proper form and function.”

After explaining the situation using the image on the screen and the anatomical model, the patient better understood her dental condition and was eager to start treatment.

Treatment

After the patient agreed to the recommended treatment, she was scheduled for the procedure. All the risks, benefits, and alternatives were discussed with the patient. The patient was anesthetized and a dental dam was placed on tooth No. 4. Amalgam removal was achieved using a Barracuda bur (Kisco Dental Products, Wichita, Kan, www.kiscodental.com). Recurrent decay was present underneath the restoration as had been suspected (Figure 3). An intraoral picture was taken to illustrate to the patient exactly how deep the caries had extended underneath the previous restoration. Using the DemoDent model, the progression of decay through the layers of the tooth was further described. Further clean out of decay using a No. 6 round bur revealed that decay had progressed into the pulpal area of tooth No. 4 and that root canal treatment would be required to properly restore the tooth (Figure 4). After root

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was placed more than 20 years ago. Using the DemoDent patient education model (Figure 2), I described her dental condition and what can happen to a tooth when a restoration starts to fail. I

biting forces, chewing, and acidic challenges. Your filling appears to be cracked, allowing bacteria to leak underneath your filling. Often, there are no major symptoms until the decay



Figure 1—Preoperative view of the failing amalgam restoration in tooth No. 4.



Figure 2—The DemoDent anatomical model can be used for patient education.



Figure 3—The recurrent decay evident after amalgam removal.



Figure 4—Decay extending into the pulpal area.

canal therapy was completed, a titanium alloy post (ParaPost, Coltène Whaledent Inc, Cuyahoga Falls, Ohio, www.coltenwhaledent.com) was cemented using an opaque shade of self-etch, self-adhering resin cement (Maxcem, Kerr Corp, Orange, Calif, www.kerrdental.com) and the core was built-up using a dual-core material

(CosmeCore, Cosmedent, Inc, Chicago, Ill, www.cosmedent.com) (Figure 5). Using an LED curing light (L.E.Demetron II, Kerr Corp), the core was cured for 25 seconds. Then the tooth was prepared for a full-coverage crown. Because margins need to be on solid tooth structure and the decay had spread below the gingival

margin, the crown margins were extended subgingivally. A gingival retraction paste (Expasyl, Kerr Corp) was used to control the bleeding of the gingival tissues (Figure 6). After hemostasis was achieved, an impression was taken using a polyvinylsiloxane material (Take 1, Kerr Corp).

Two weeks later the patient returned for placement of the porcelain-fused-to-metal crown. The provisional restoration was removed and the preparation was inspected for final cementation (Figure 7). After a bitewing x-ray was taken to confirm full seating of the crown and the contacts and margins verified, the crown restoration was cemented (Maxcem, Kerr Corp). The patient was very pleased with the final restoration (Figure 8).

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Figure 5—Placing the post and core.



Figure 6—Gingival retraction paste was placed to control bleeding of the soft tissue.



Figure 7—Clinical view of the final preparation at the re-evaluation appointment.



Figure 8—Final porcelain-fused-to-metal restoration.

Conclusion

There are many ways to educate patients so they understand their dental concerns and get treatment. In the author's opinion, one of the most effective methods is to show patients what is going on in their mouths and then describe the condition and its effects using an anatomical model. Anatomical models allow patients to visualize the tooth 3-dimensionally. When patients understand their conditions, they value the importance of treatment necessary to restore their mouth to proper function and health. In return the dental provider can feel confident that he or she completely educated and served the patient. 

Disclosure

Dr. Nazarian is the creator of the DemoDent patient education model system.