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When Things Do Not Go as Planned: Restorative Reconstruction Concepts to Solve a Surgical Dilemma

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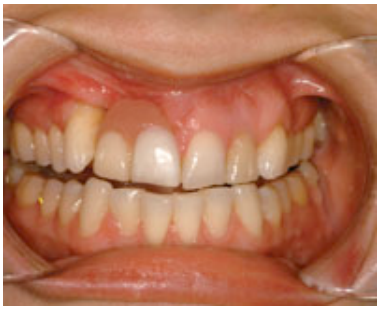
An old saying states, “people don’t plan to fail, they just fail to plan.” Taking that into consideration, there are times when all the planning in the world will not guarantee a desirable outcome. We as practitioners can often be faced with unforeseen complications and challenges. This might require us to change plans in the middle of treatment in order to provide an excellent final result. This case in point involves such a dilemma, and shows that with a little thought and diligence challenges that arrive in the office often can be overcome.

CASE REPORT



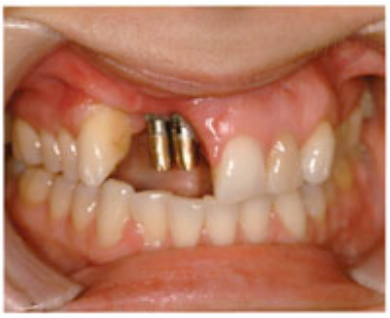
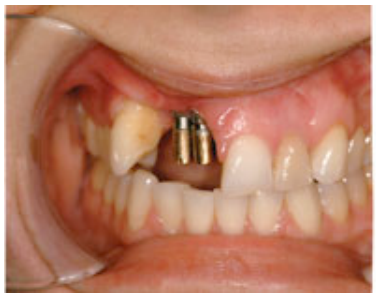


Figure 1. Preoperative view of patient.

Figure 2. Preoperative view with existing maxillary flipper partial.



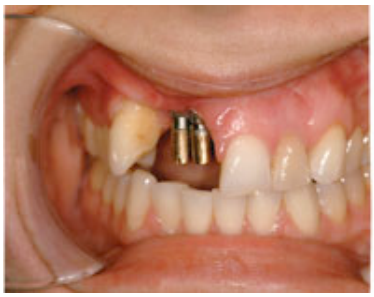
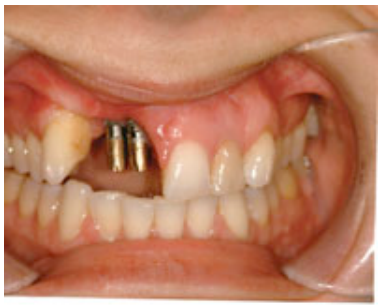


Figure 3. Preoperative view with existing root form implants.

Figure 4. Severe root exposure of tooth No. 6.



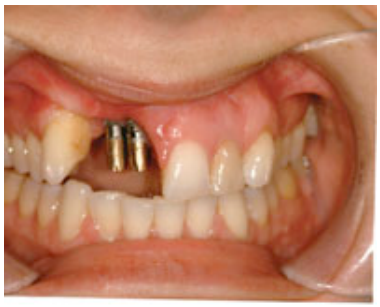


Figure 5. Tooth No. 10 discolored from previous root canal treatment.

Figure 6. Overview demonstrating closely aligned implants replacing teeth Nos. 7 and 8.

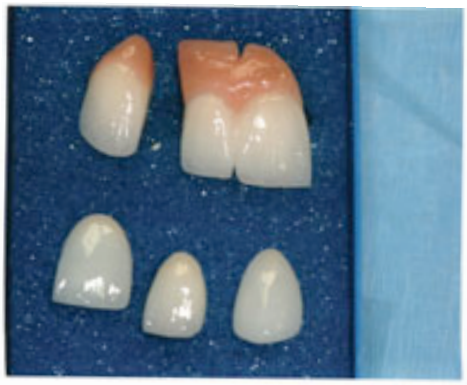


Figure 7. Teeth Nos. 6 to 8: porcelain-to-gold crowns. Teeth Nos. 9 and 11: porcelain laminate veneers. Tooth No. 10: zirconia crown.

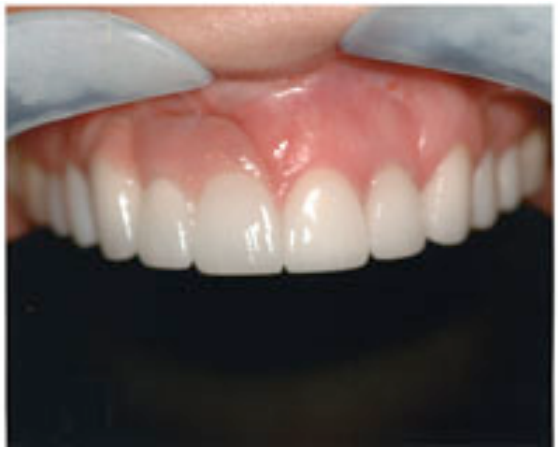


Figure 8. Figure 7 restorations placed in addition to direct bonded composite veneers on tooth Nos. 4, 5, 12, and 13.

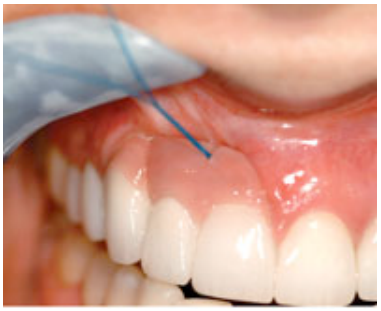


Figure 9. Floss threader that easily passes between teeth Nos. 7 and 8.

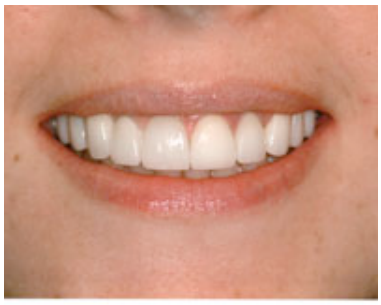


Figure 10. Virtual gingival line.

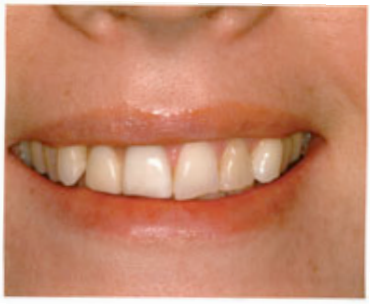


Figure 11. Before treatment.

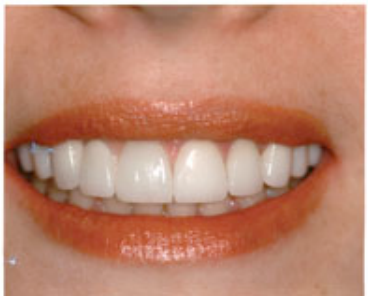


Figure 12. After treatment.

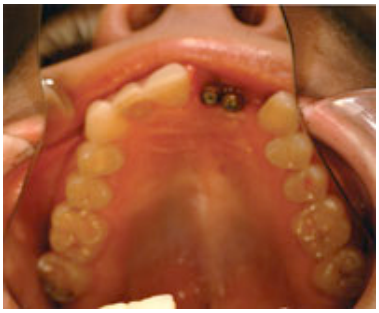


Figure 13. Occlusal view before treatment.

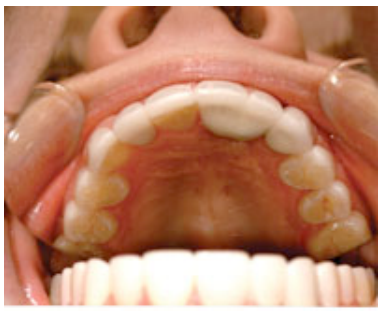
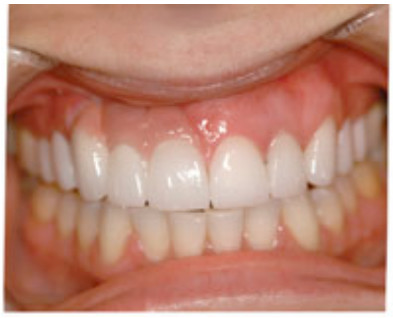


Figure 14. Occlusal view after treatment.



Figures 15a and 15b. Postoperative view of the patient.

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A 31-year-old female reported to my office seeking a cosmetic consultation (Figure 1). Three years ago, she had an odontogenic fibroma removed, along with teeth Nos. 7 and 8. At a subsequent surgery, she had 2 root form implants placed, along with bone grafting. The implants had been in place, along with a maxillary flipper partial, for about 2 years (Figures 2 and 3). She was unhappy with the appearance of her smile and wanted to rid herself of relying on a flipper. Tooth No. 6 had severe gingival recession from the surgery, and there was a lot of root exposed (Figure 4). Tooth No. 10 had an existing old root canal filling and was badly discolored (Figure 5).

Examination showed that the 2 implants replacing teeth Nos. 7 and 8 had drifted, and the surrounding tissue was not aesthetically pleasing (Figure 6). The alignment of the implants presented a challenge due to the angulation and close proximity to each other. The tissue around the implants was also not aesthetically acceptable due to lack of attachment.

One possible method to correct this could have been more surgery. Grafting could be done to improve tissue aesthetics. The implants could be redone to improve the angulation. Having already been through multiple surgeries, the patient was not receptive to either of the two possibilities. The patient's wishes were taken into consideration in the evaluation of her case for treatment modalities.

Radiographs of the implants revealed that they were indeed fully integrated, in spite of some of the cervical threads being exposed. The rest of the teeth in her smile line were functionally healthy, so I decided to handle the case restoratively.

I planned to do direct bonded resin veneers on teeth Nos. 4, 5, 12, and 13 and porcelain laminate veneers on teeth Nos. 9 and 11. I utilized pink porcelain to simulate the gingiva that was missing. A zirconia crown was planned for tooth No. 10, and a porcelain-to-noble-gold crown was planned for tooth No. 6. One final consideration was replacing the

flipper. After discussions with the patient I decided to do porcelain crowns along with pink porcelain to replace the large area of missing gingiva. I would join them together to stabilize the implants and also allow slight room between the porcelain and the mucosa (Figures 7 and 8). Since hygiene can be an issue around implants, this would allow the patient to floss under the pontics, which is very important for the longevity of the case (Figure 9).

I performed the restorative work with standard procedures, with the exception of the pink porcelain. In order to achieve a cosmetically and functionally acceptable outcome, a lot of thought was put into the placement of the “virtual gingival line” (Figure 10). Temporaries were fabricated to simulate the final restorations to give the patient time to evaluate the potential outcome. Once the patient accepted the temporaries, it was only a matter of having the laboratory fabricate the final restorations using my established guidelines (Figures 11 to 14).

The final result was aesthetically pleasing but also acceptable from a hygiene and functional standpoint. It shows what can be done with a little foresight and the ability to step back and re-evaluate. Even the best surgeons will occasionally have problems with implant placement. This case shows that sometimes all is not lost and the situation can be solved restoratively (Figures 15a and 15b). This is better for the patient and better for the dentist!

Acknowledgment
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Dr. Riley maintains a full-time practice in Houston, Tex, with special interest in aesthetic, restorative, reconstructive, and implant dentistry. She received her DDS from the University of Maryland in Baltimore and is a mentor in the Dr. Gordon Christensen Mentor Program. She can be reached at (713) 622-1707.