

CS 9300 System

CBCT Scan Reveals Previous Unsuccessful Bone Graft

Craig Misch, D.D.S., M.D.S., P.A.

Case Overview

A healthy male patient presented at my office seeking an implant to replace the maxillary left central incisor (# 9). His general dentist had extracted the tooth and performed a socket bone graft and the patient



felt more comfortable having a specialist place the implant. The patient was eager to begin treatment and was confident he had enough bone. Indeed, the initial clinical exam also gave me the impression of plenty of bone (Fig. 1).

Fig. 1

Although it initially appeared that there was adequate ridge width, a computed tomography (CT) image (Fig. 2) revealed that the ridge was deficient; it was resorbed and too palatal. A cone beam computed tomography (CBCT) image captured with the CS 9300 confirmed that the previous socket bone graft was unsuccessful, leading to vertical and horizontal bone deficiency (Fig. 3).

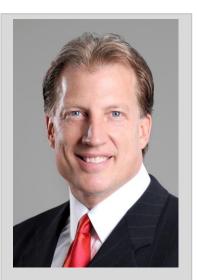


Fig. 2



Fig. 3

The extracted tooth crown had been bonded to the adjacent teeth by the general dentist. Also, the bonded crown had a portion of the root included, making it too long.



Craig Misch, D.D.S., M.D.S., P.A.

Dr, Misch practices as a dual specialist in prosthodontics and oral and maxillofacial surgery in Sarasota, Fla. He is a clinical associate professor at the University of Florida and the University of Alabama, Birmingham in periodontics and prosthodontics. Dr. Misch serves on the editorial boards of the International Journal of Oral Maxillofacial Implants, International Journal of Periodontics and Restorative Dentistry and Implant Dentistry. He has published numerous articles and several textbook chapters on bone grafting, dental implants and prosthodontics.





Treatment

The defect was exposed (Fig. 4) and the site grafted with autograft harvested from the site with an AMC bur (Fig. 5). The area was then augmented with BioOss (Fig. 6) and the site was covered with Ossix Plus collagen membrane (Fig. 7). A post-op cone beam CT scan was taken to confirm the success of the graft (Fig. 8). The graft healed very well and the patient was pleased with the results. So pleased, in fact, that he posted a rave review on the practice Facebook page.



Fig. 4



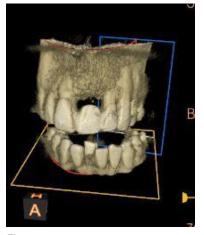
Fig. 5



Fig. 6



Fig. 7



Testimonial

This is the perfect example of how invaluable CBCT can be to an oral surgeon. The patient arrived in my office mentally prepared for an implant, yet the CBCT scan revealed a significant defect in the area, requiring a much more involved procedure than the patient had anticipated. Without that CBCT scan, I would not have been prepared to handle the case appropriately. Conventional X-rays may have hinted at a small amount of bone repair, when, in fact, this case turned into an autogenous procedure that was actually quite complex. Cases like these happen a lot. Thankfully, CBCT gives me all the information I need to make the best recommendation for treatment.

Fig. 8

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