

Zygoma Concept for Severe Resorption

Dr. Davó avoided grafting in a severely resorbed maxilla and provided Immediate Function at the same time.

A popular lecturer and a gifted clinical researcher, Dr. Rubén Davó wrote his PhD dissertation on Immediate Function using zygoma implants in 2007. Devoted to spreading the word about his research, and with great experience in the treatment of dentofacial deformities, guided surgery, rehabilitation of patients with atrophied bones and quality of life issues, he shares a difficult yet increasingly common type of case with us here.

By Dr. Rubén Davó

The patient in the case depicted here from 2006 was a 60-year-old woman with severe bone resorption of the upper and lower jaw. When we first met, she wore a complete set of dentures.

Although her chief complaint was discomfort—the dentures were always causing her problems, she said—they were also decreasing her quality of life, not only from a functional perspective but also from a psychological and social point of view.

Looking for a better life

In order to improve her quality of life as soon as possible, the patient was looking for improved esthetics combined with Immediate Function. Because she was so eager for a substantial improvement in her situation, she was unwilling to consider a grafting procedure as an alternative form of treatment.



Figure 1. Intraoral frontal view of the patient without the prosthesis shows severe bone resorption of the maxilla. This is further confirmed via radiographic analysis.

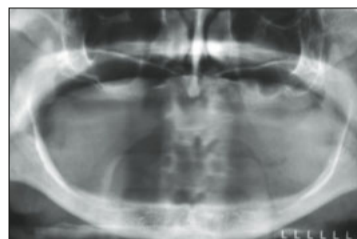


Figure 2. Radiographic analysis confirms the severe bone resorption of the maxilla, making it impossible to place standard implants in the posterior maxilla. The bone height was adequate for placing implants at the desired level in the anterior mandible.

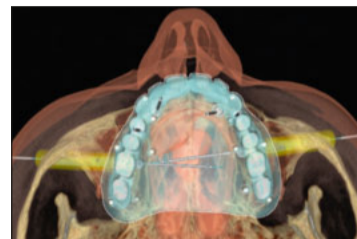


Figure 3. NobelClinician Software allows the preoperative tooth setup to be transferred virtually for prosthetic-driven planning of implant positioning for optimal engagement of residual bone. The choice of implants was made at this point (see details in the article).



Figure 4. The temporary fixed bridge with Immediate Function provided an immediate improvement in the patient's quality of life.

A good candidate

Despite the fact that the patient had been completely edentulous for ten years and displayed severe bone resorption, her overall health was quite good. She had no systemic illnesses, nor any allergies.

We proceeded to analyze the quantity and quality of the available bone with the help of NobelClinician Software, and decided to rehabilitate the maxilla using Brånemark System Zygoma and NobelReplace Tapered Groovy implants.

Step-by-step

For the mandible, we chose to use the All-on-4® treatment concept, basing it in this case on NobelReplace Tapered Groovy implants.

Precision-milled, fixed NobelProcera Implant Bridges were produced for the final prostheses in both the maxilla and the mandible. My colleague Dental Technician Juan Pedro Ramos then created the prosthetics depicted in the adjoining figures.

Based on the patient's request, an Immediate Function protocol was



Figure 5. Post-op radiograph with the fixed provisional prosthesis shows NobelReplace Tapered Groovy implants in the anterior maxilla combined with Brånemark System Zygoma implants in the posterior maxilla. In the mandible, the All-on-4® treatment concept with NobelReplace Tapered Groovy implants was used.



Figure 6. Occlusal view of the final maxillary screw-retained NobelProcera Implant Bridge, showing screw access emergence from the implants. Note the favorable posterior support provided by the Brånemark System Zygoma implants, placed as crestally as possible, thus making bone grafts unnecessary.



Figure 7. In the maxilla, a fixed NobelProcera Implant Bridge was used as a final prosthesis after six months, providing enhanced esthetics and strength, through the use of a biocompatible, precision-milled titanium implant framework.

implemented, and she remains very happy with the results today, nine years later.

The time for total treatment? The fixed provisional prostheses were provided within 48 hours, and the total treatment time amounted to six months. <

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Figure 8. After six months: For the sake of strength and ease of maintenance, a fixed NobelProcera Implant Bridge with acrylic teeth was used as a final prosthesis in the mandible.



Figure 9. Smile of the patient after placement of the fixed provisional prostheses showing good proportion and balance from an esthetic point of view.



Making decisions together. "I virtually became a part of the team," says Gerda Jacobs, seen here with Dr. Luc Vrielinck.

Comfortable and Confident, Every Step of the Way

Gerda Jacobs is a 62-year-old Dutch woman who had had problems with her gums since childhood. Last year she underwent a procedure with four zygoma implants that has changed her life. This is her first-hand story.

By Gerda Jacobs

Over the years, I learned to live with a removable denture, which worked fine until recently. I started to get frequent infections and

found myself in considerable pain when eating even simple foods, like toast. My gums were easily bruised and they were often swollen. It became impossible to brush my teeth without bleeding.

My dentist diagnosed me with severe periodontitis and referred me to Dr. Vrielinck. With the help of 3D imaging, he explained every detail of the implant-based treatment he was proposing and what other treatment options were available for me.

I chose the fixed denture option because I wanted to be presentable to my surroundings and to be able to

communicate properly. Both are important to me.

Working together with Dr. Tom De Wit, who ultimately fitted the prosthesis, Dr. Vrielinck did a marvelous job. Shortly after surgery, I had a fixed bridge in place. I can now speak clearly and feel much more confident interacting with people.

I'm getting older and I don't want to have to cope with major dental issues later in life. Taking this step at my age means that I should be able to avoid many potential problems in the future, and for now: I couldn't be more pleased with the results! <