

Full-Mouth Rehabilitation. Screw-retained MUA by XGATE

The key feature of this clinical case is the full-mouth rehabilitation of both the maxilla and mandible with fixed, screw-retained prostheses using two types of XGATE multi-unit abutments: D-Type and V-Type. The use of a titanium framework veneered with zirconia ensured both durability and high aesthetics. Additionally, implementing a digital protocol with an intraoral scanner allowed for a precise, passive fit and required minimal adjustments.

This case demonstrates a comprehensive approach to restoring function and aesthetics in a patient with a terminal dentition, utilizing modern digital and surgical solutions to transition to full-arch fixed prostheses.

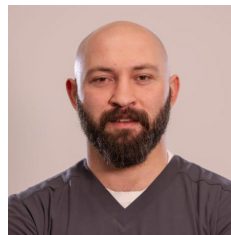
First, let's introduce the team responsible for the patient's treatment:



Dr. Nikoloz Tabatadze

Specialization:
Prosthodontist

Place of work:
Tbilisi, Georgia



Dr. Levan Sinatashvili

Specialization:
**Maxillofacial Surgery,
Implantology.**

Place of work:
Tbilisi, Georgia

Patient Summary

Male, 49 years old

General health is satisfactory.

The patient presented with functional and aesthetic concerns related to failing restorations supported by his natural teeth. Over time, the occlusion had failed, and the structural integrity of the abutment teeth was compromised.

A comprehensive clinical and radiographic examination, including a Cone Beam Computed Tomography (CBCT) scan, was performed. Based on the findings, a decision was made to extract all remaining teeth in the maxilla and mandible and rehabilitate both arches with fixed, screw-retained prostheses.

The clinical situation after removing the old restorations is shown below.



Treatment Planning and Implementation

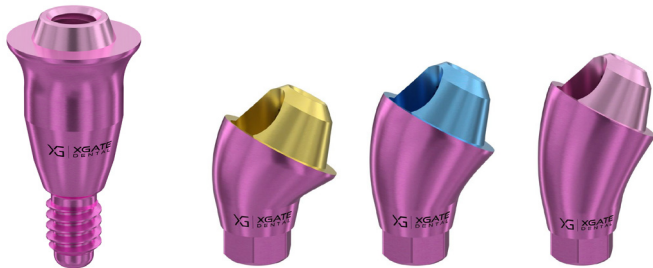
The CBCT analysis revealed that it was necessary to perform localized bone augmentation with InterOss osteoplastic material concurrently with implant placement.

A total of 12 Neobiotech IS-II Active implants were placed: six in the maxilla and six in the mandible.

Following the osseointegration period and soft tissue healing, the prosthetic phase commenced. Given the span of the restorations, screw retention was the only way to ensure a good passive fit.

In accordance with the patient's needs, the following two types of XGATE multi-unit abutments were immediately placed:

- **Angled D-Type 30°** – used in the upper jaw, available in heights of 1 mm, 2 mm, and 3 mm.
- **V-Type** – used in the lower jaw, with a height of 3 mm.



V-Type

D-Type

The active use of digital technologies, especially intraoral scanners, helped minimize the number of try-in appointments and adjustments.



The first stage involved planning and constructing a temporary prosthesis.

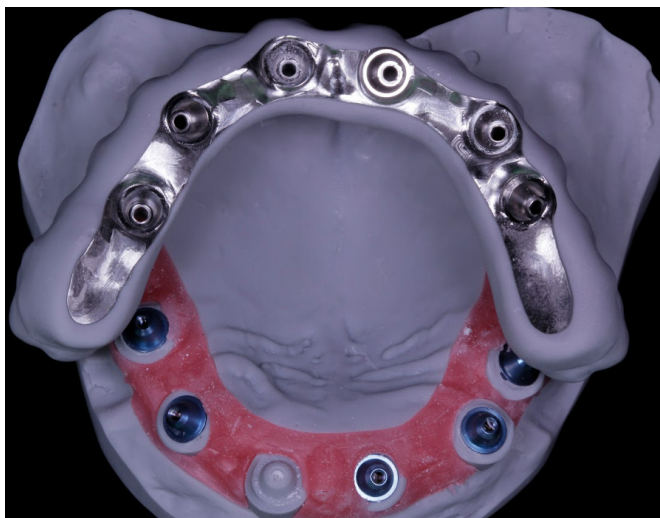
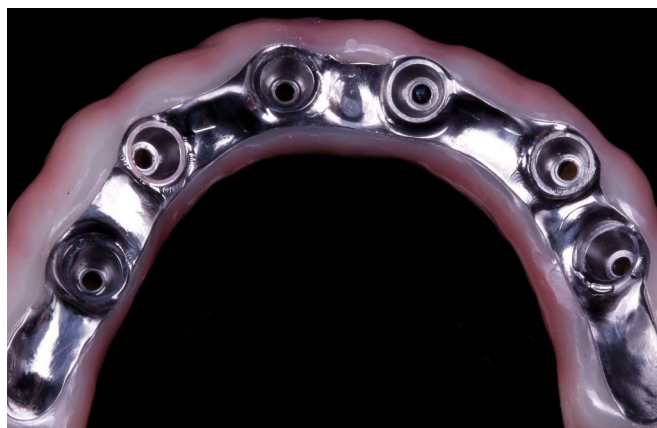
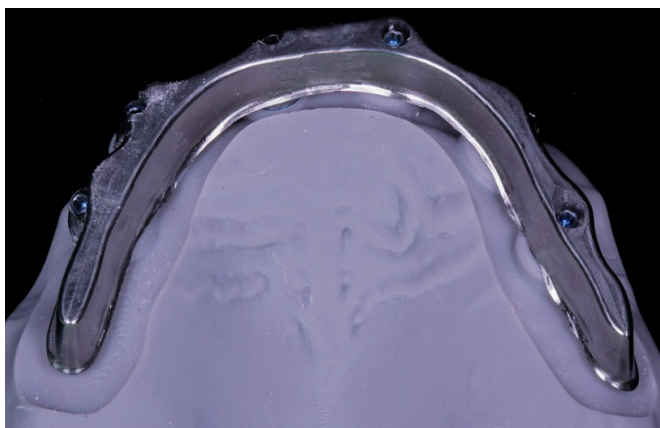


After try-in and adjusting the data, permanent full-arch prostheses with a titanium frame and zirconia dioxide coating were fabricated.

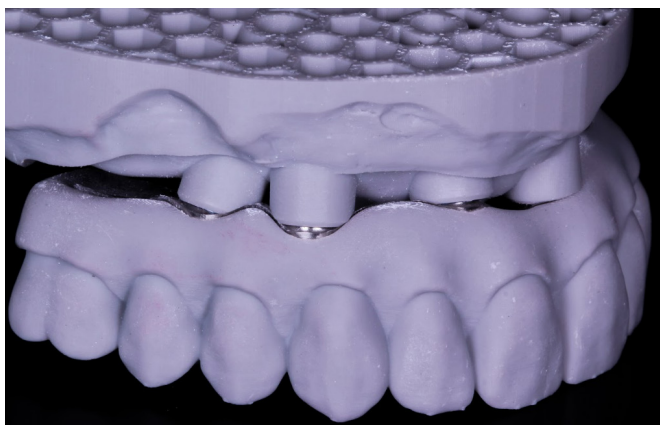


In this situation, the optimal solution was a prosthesis with a titanium frame and zirconium dioxide coating.

Multi-unit abutments made it possible to compensate for divergent implant angulations without additional processing.



The patient continues to be monitored; the restoration and surrounding tissues are normal, and no signs of inflammation have been detected.



We hope you found this clinical case interesting.

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