

Replacement of a Removable Denture with a Permanent Implant-Supported Restoration: Screw Retention on MUA V-Type XGATE Dental

This clinical case, presented by Dr. Sergey Goykhman, is notable not only for combining implants and abutments from different manufacturers but also for demonstrating the importance of standardization and precision in the fabrication of implants and superstructures.

First, let's get acquainted with the doctor:



Sergey Goykhman

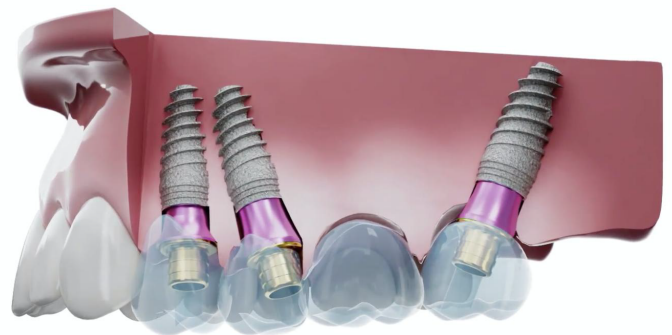
Specialization: Oral Surgery, Orthopedics, Restorative Dentistry, Soft Tissue Management

Experience: 16 years

Place of work: Israel, Netanya, Obol Dental Center

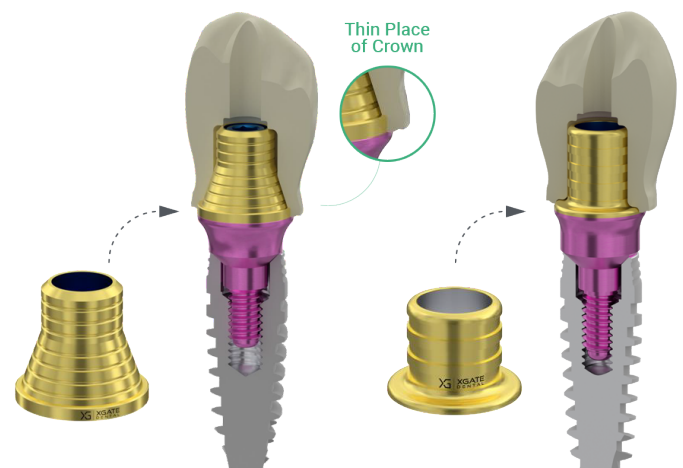
The key objective of this case is to illustrate the creation of aesthetically elegant and high-quality restorations using low-profile V-Type abutments, which offer enhanced versatility even in cases with limited space.

Use small cone straight MU to correct angulation up to 40° between two adjacent implants



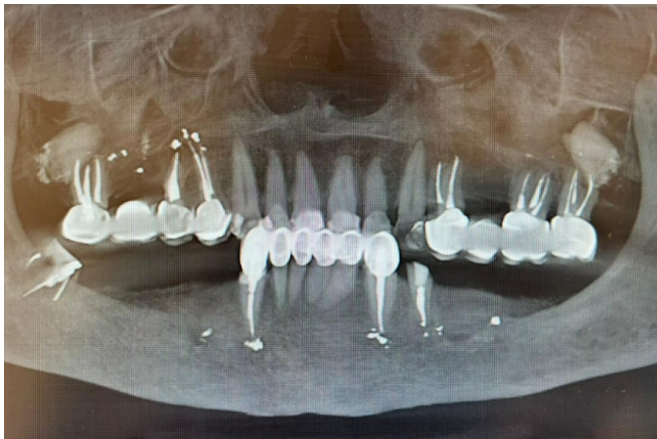
Small cone provides more space for the restoration material

The use of MUA V-Type in this clinical case eliminated the need for angled abutments and provided increased restorative space. Since the final prosthesis was fabricated from zirconium dioxide, special attention was paid to maximizing the material thickness around the retention points to ensure the restoration's high strength and durability.



Patient Summary

An 80-year-old female patient presented with complaints about poor quality of life due to an old clasp-retained removable denture on the mandible that required replacement. She also reported issues with the remaining compromised teeth (#34 and #48). Her general health was satisfactory, and no contraindications or limitations for implant surgery were identified. The preoperative condition is clearly visible in the provided radiographs.



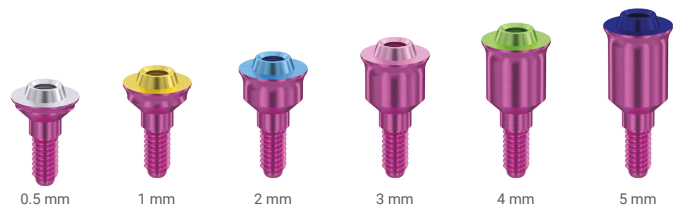
Treatment Plan and Execution

During the diagnostic phase, radiographs and an intra-oral scan of the patient's mandible were obtained. Based on the digital scan data, a surgical guide was fabricated for implant placement.

In the first stage, hopeless teeth #34 and #48 were extracted. Immediate implant placement was performed: six implants were placed, three in the third quadrant and three in the fourth quadrant. A surgical guide was used to ensure precise implant positioning. The implant-abutment interface utilized a standard Internal Hex connection.

Immediately following implant placement, V-Type Multi-Unit Abutments were placed, and healing caps were secured onto them. The abutment cuff height was selected based on mucosal thickness and alveolar ridge anatomy. XGATE, a company specializing in innovative prosthetic solutions, incorporates digital height markings on V-Type abutments (see illustration below).

V-Type MUA



The image below, taken after soft tissue healing, clearly displays the placed V-Type Multi-Unit Abutments (MUA V-Type) and their respective positions:

- Position 34: **MUA - 3 mm**
- Position 35: **MUA - 2 mm**
- Position 37: **MUA - 1 mm**
- Position 44: **MUA - 1 mm**
- Position 45: **MUA - 2 mm**
- Position 47: **MUA - 2 mm**



The mandible, with the healing caps placed during the healing period, appeared as follows:



During the soft tissue healing and osseointegration period, the patient adhered to a soft diet. Upon complete healing and re-evaluation of all clinical parameters, zirconium dioxide bridges were fabricated and delivered.

The outcome is satisfactory from both functional and aesthetic perspectives.



The patient is currently under regular follow-up and attends maintenance visits. No complications have been observed.

We hope you found this clinical case interesting.

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