



Clinical case

Full-Upper Arch Restoration with DESS® Conical BLT Implants

Prof. Fawaz Al-Qahtani presents a case featuring full-upper-arch restoration using **DESS® Conical BLT implants**.





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CASE PRESENTATION

The patient presented for full maxillary arch rehabilitation.

A 56-year-old female patient presented with multiple carious teeth and dental mobility.

A CBCT scan was obtained, revealing adequate alveolar bone volume for implant placement. Based on these findings, a full-arch maxillary fixed restoration was planned.

Six DESS® Conical BLT implants were placed as follows: 3.3 × 12 mm at site #23, and 4.1 × 12 mm at sites #16, 15, 14, 24, and 26.



Initial situation

Local anesthesia was administered, and all maxillary teeth were extracted.

DESS® Conical BLT implants were placed, alveoloplasty and major bone augmentation were performed using a cortico-cancellous allograft to optimize ridge contour and implant support



Figure 1 – X-ray image taken after implant placement and bone augmentation.



Figure 2 – Photo taken before second stage surgery

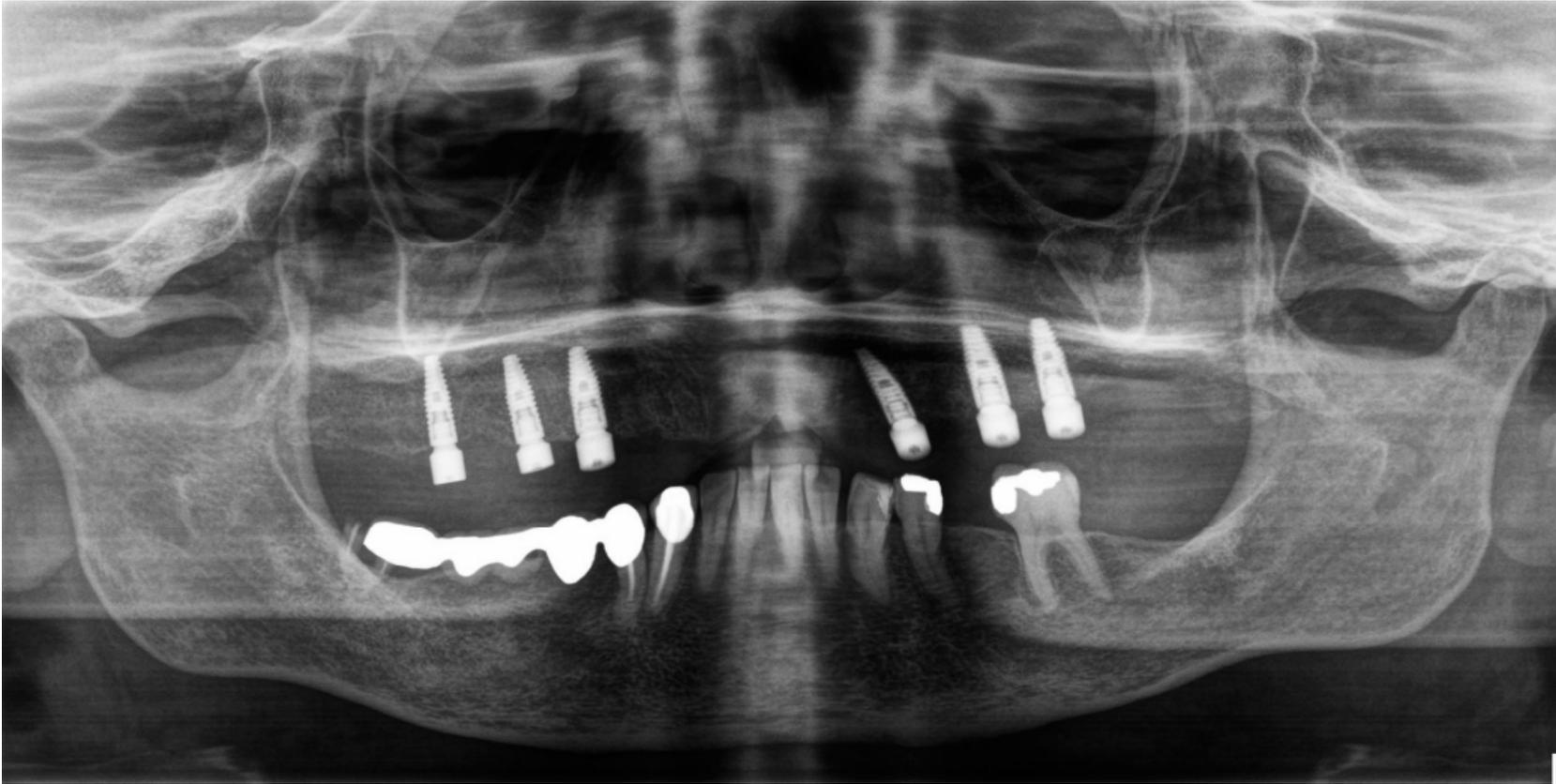


Figure 3 – Panoramic view X-ray taken after second stage with healing abutments.

Three months postoperatively, second-stage surgery was performed, and healing abutments were placed on all six implants.

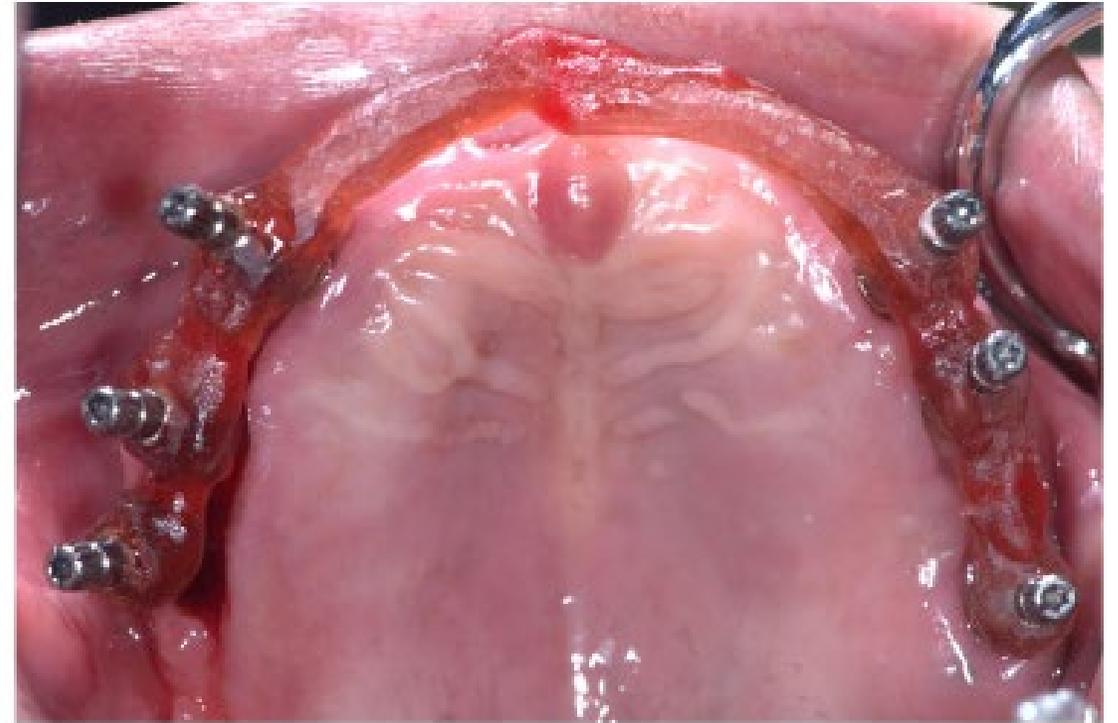
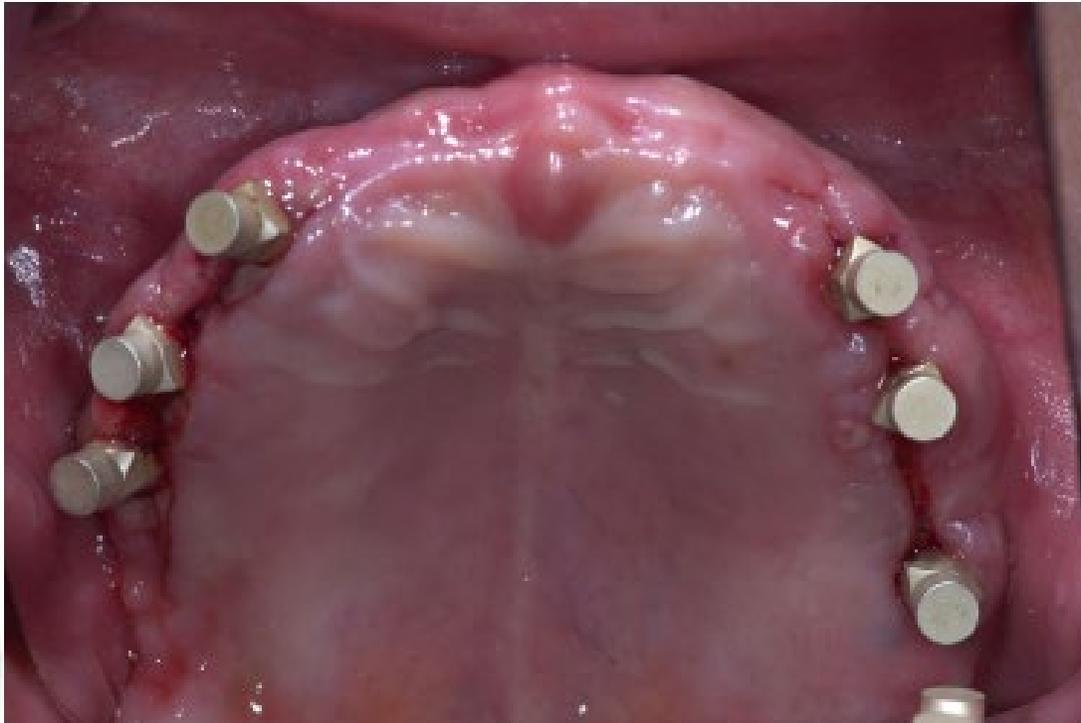
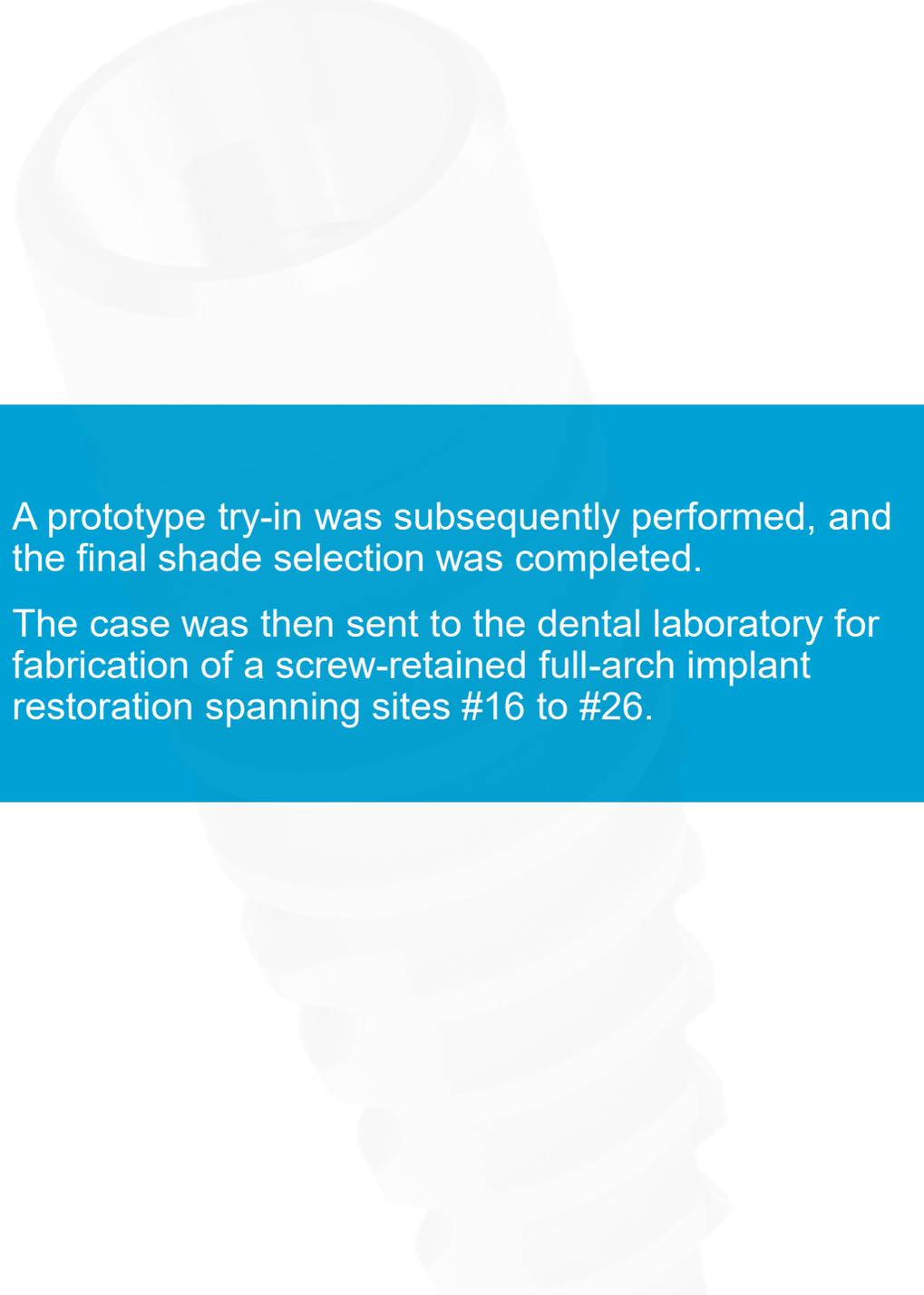


Figure 4 – Dess® Digital Impression (Left); Dess® BLT Conical Transfer with Jig for final impression (Right)

The primary impression was taken using DESS® digital scan body and DESS® Conical BL transfer, followed by a final impression with acrylic jig.

Jaw relation was recorded using a screw-retained record base to capture the accurate maxillomandibular relationship.



A prototype try-in was subsequently performed, and the final shade selection was completed.

The case was then sent to the dental laboratory for fabrication of a screw-retained full-arch implant restoration spanning sites #16 to #26.



Figure 5 – Prototype try-in photos



The final prosthesis was delivered, and the prosthetic screws were torqued to the manufacturer's recommended value.

The implant access channels were sealed with PTFE (Teflon) tape and composite resin.



Figure 6 – Interocclusal and occlusal photos after delivery

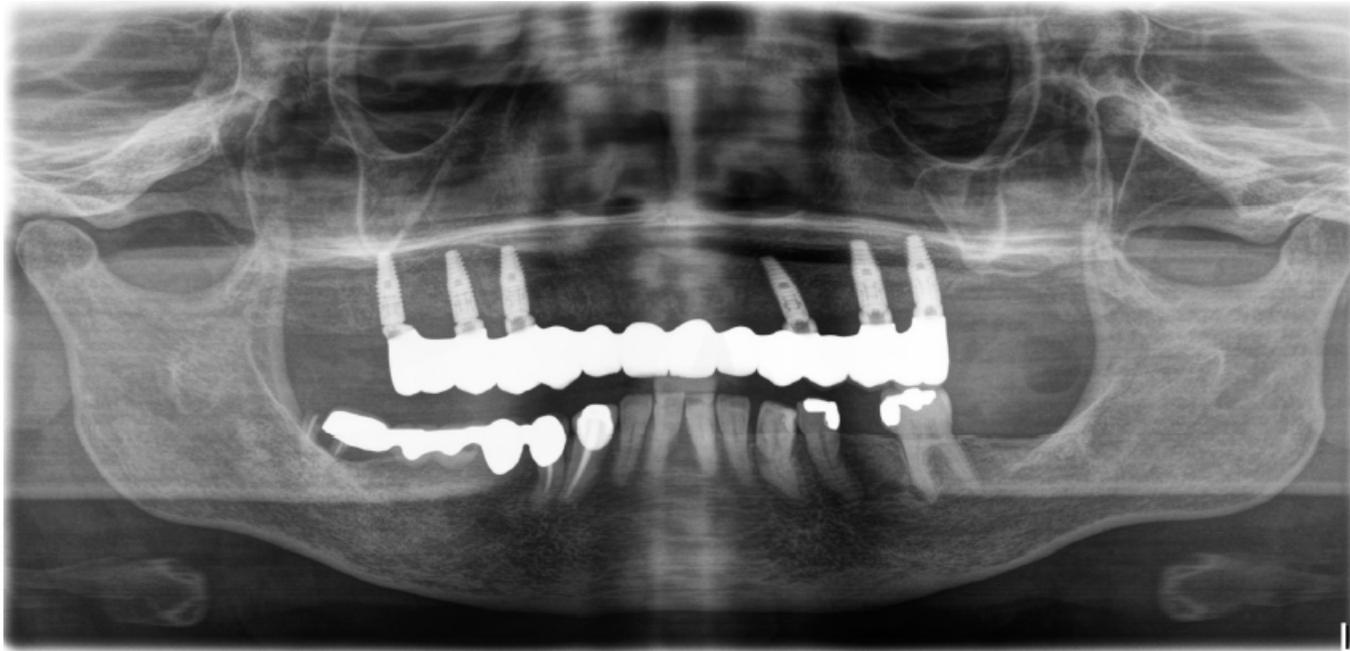


Figure 7– Panoramic View X-ray after final delivery of Implant restoration

CONCLUSION

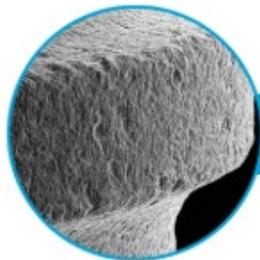
Dental implant rehabilitation must satisfy both functional stability and esthetic excellence.

Immediate implant placement following extraction demonstrated predictable outcomes despite the patient's age and compromised dentition.

Favorable bone adaptation was observed at the three-month evaluation. The prosthetic phase progressed uneventfully, resulting in a stable, esthetic, and functionally optimized full-arch restoration.

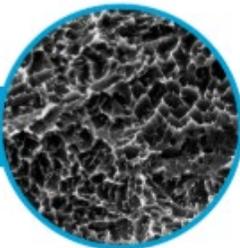


Double treatment of sandblasting and acid etch that assures **optimal bone growth**



x 250

Homogeneous treatment with big holes due to sandblasting



x 5000

Microroughness due to acid etching inside the holes

DESS® CONICAL BTL IMPLANT

The Optimal Bone Level Implant

Bone Level Tapered Implant Design

- Allows for maximised crestal bone preservation and micro-gap control
- Transmucosal or submucosal healing
- Less invasive and faster treatment



- ✓ Internal Conical Connection at 15°
- ✓ Reduced risk of Micromovements
- ✓ Reduced risk of Screw Loosening
- ✓ Easy Alignment
- ✓ Excellent Primary Stability
- ✓ Ideal for Soft and Low-density bone
- ✓ Tapered Apical design with Self-cutting Threads
- ✓ Osseointegration Surface Technology: OST by DESS®



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- 2002-2008 **Bachelor of Dental Surgery** (BDS), King Saud University, Riyadh, Saudi Arabia, GPA 4.31/5
- 2007-2008 **General Dentistry**, King Saud University, Riyadh, Saudi Arabia (Internship)
- 2009-2012 **Prosthodontic Residency Program**, UMDNJ–New Jersey Dental School, Newark, NJ
- 2012-2014 **Implant Fellowship (Full time)**, Loma Linda University, Loma Linda, CA
- 2008-2014 **Demonstrator**, Prosthetics Dental Sciences, Dental College, Salman Bin Abdulaziz University, Alkharj-KSA
- Since 2014 **Assistant professor**, Prosthetics Dental Sciences, Dental College, Prince Sattam Bin Abdulaziz University, KSA
- Since 2022- **Board Member** of the scientific committee of Prosthodontic Board, Saudi commission of health specialties, Saudi Arabia
- Since 2022- **Full professor**, Saudi Board of Prosthodontics, Saudi Commissions for Health Specialties, KSA

