DESS

Clinical case

Full-Lower Arch Restoration with DESS® Conical BLT Implants

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

Prof. Fawaz Al-Qahtani
Saudi Arabia

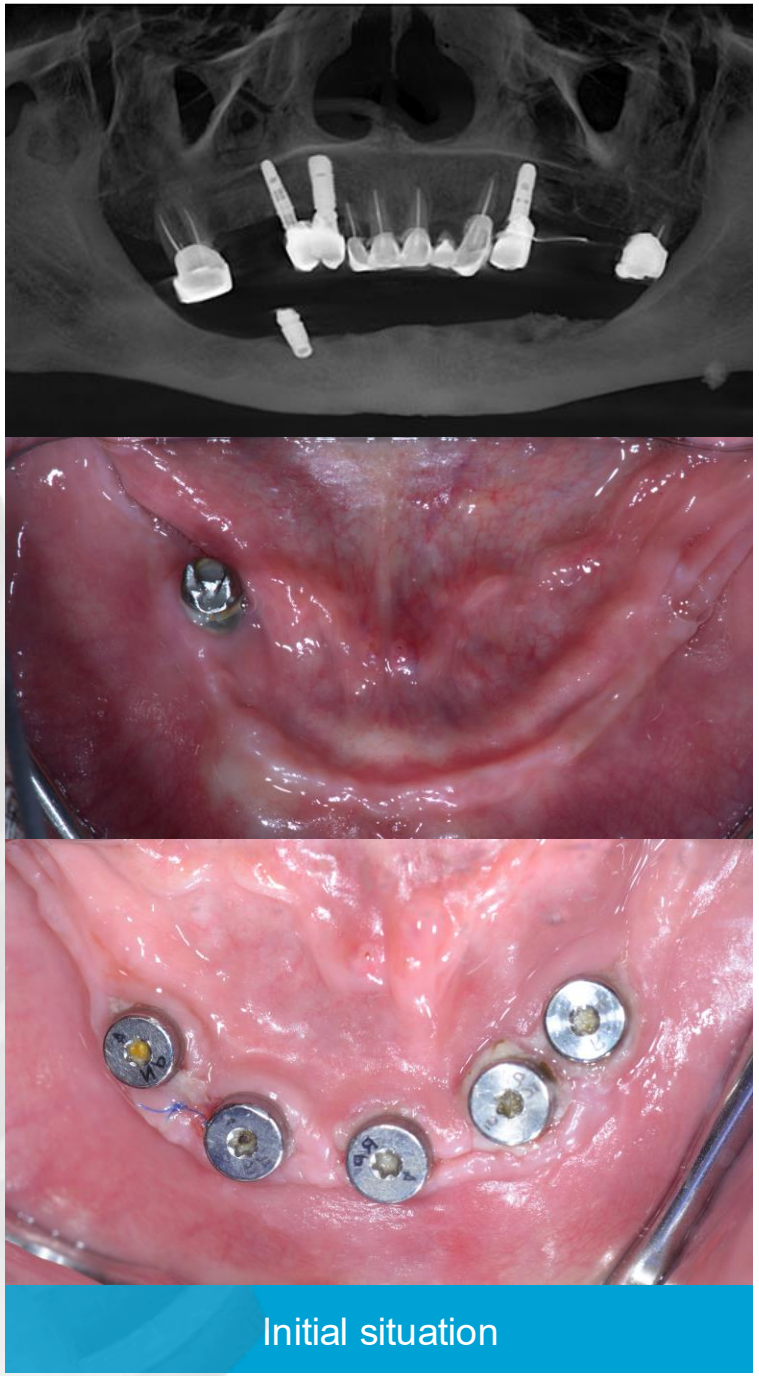
CASE PRESENTATION

The patient presented for full lower arch rehabilitation.

An 82-year-old male patient presented with edentulous lower arch with one implant on area of #46.

A CBCT scan was taken and evaluated, revealing adequate anterior bone volume for implant placement. Based on these findings, a full-arch lower fixed restoration was planned.

Five DESS® Conical BLT implants were placed as follows: 3.3 × 10 mm at site #34 and 4.1 × 10 mm at sites #33, 32,42 and 44.



Initial situation

Local anesthesia was administered, and existing implant was extracted.

Five DESS® Conical BLT implants were placed, major bone augmentation was performed using a cortico-cancellous allograft to optimize implant support

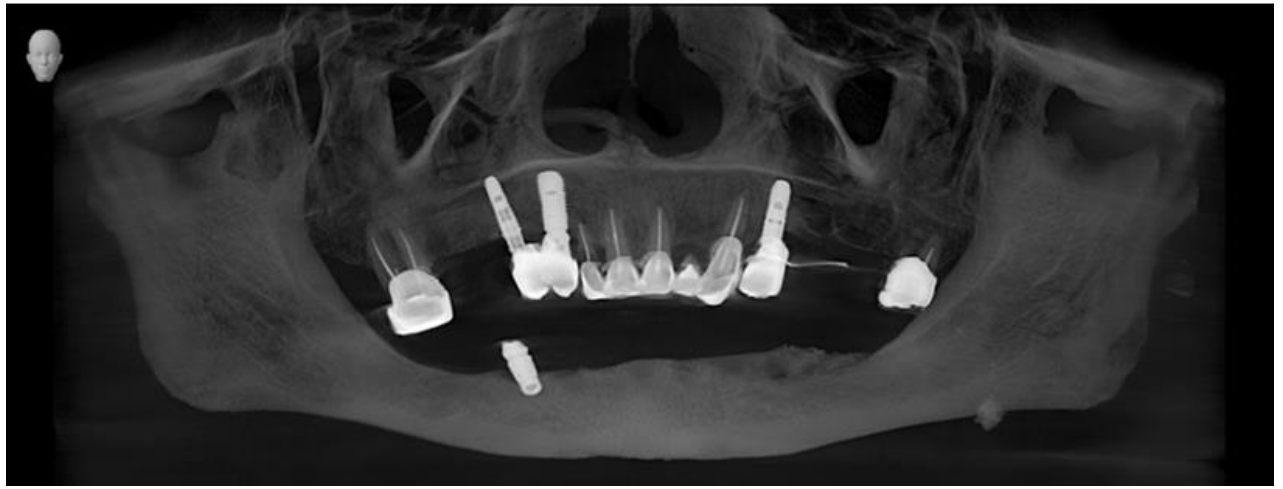


Figure 1 – CBCT image upon initial assessment.

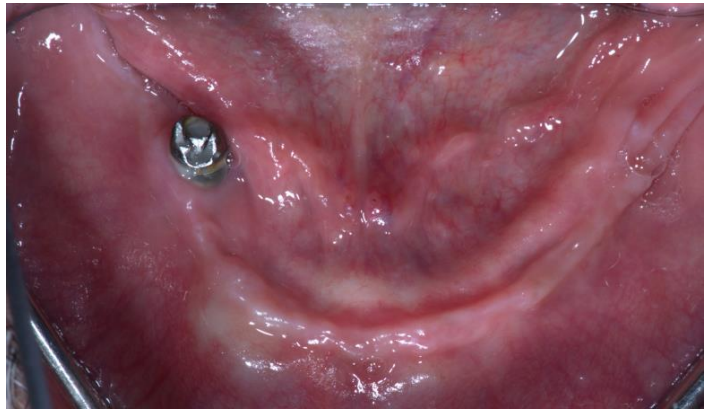
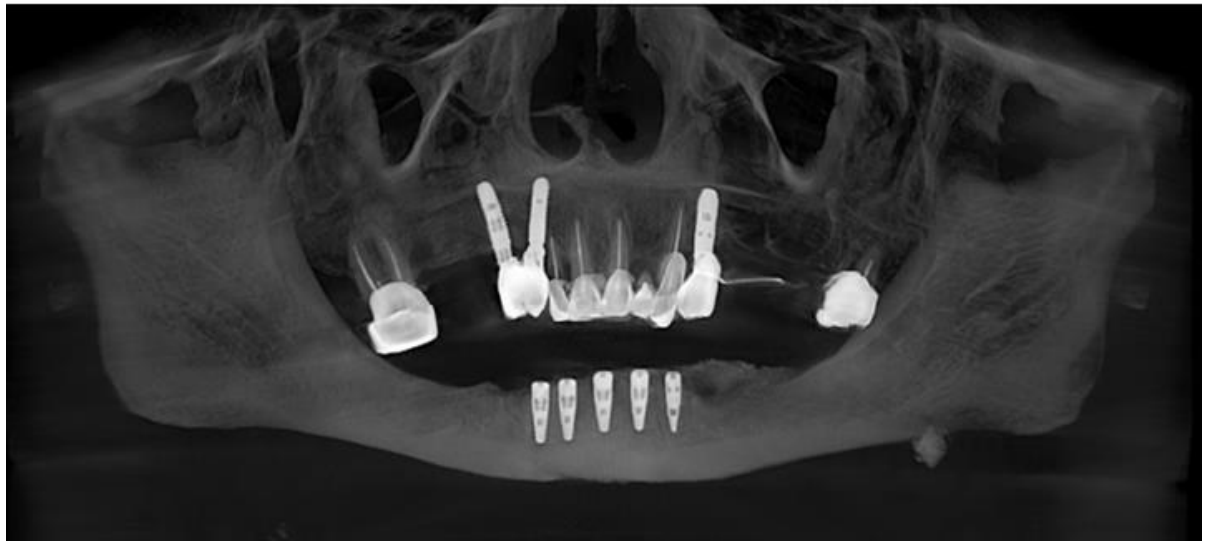


Figure 2 – Initial photos pre-surgery

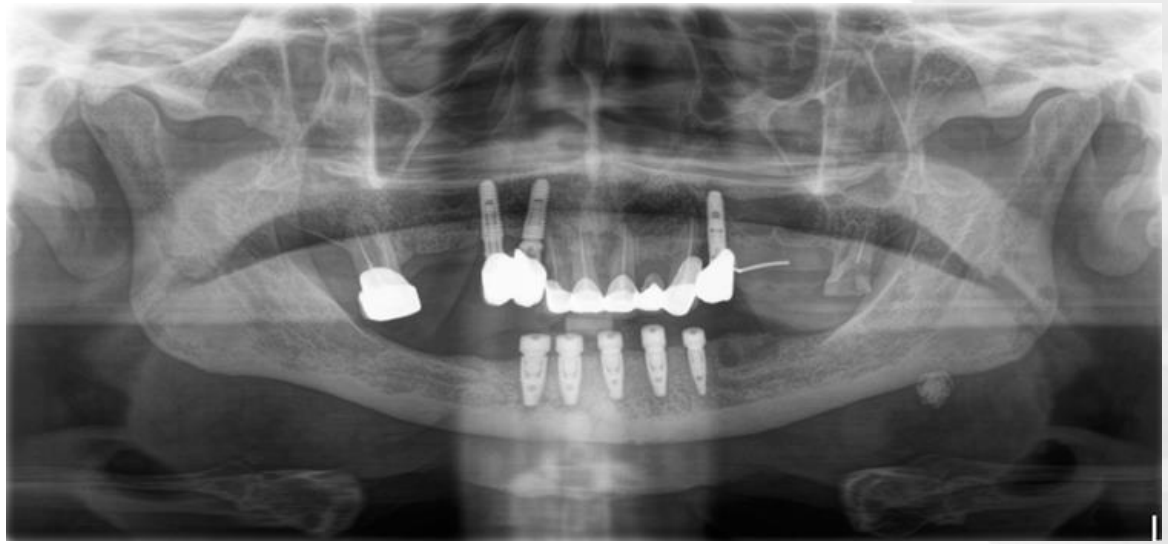
Double treatment of sandblasting and acid etch that assures **optimal bone growth**

DESS® CONICAL BTL IMPLANT

- ✓ 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®



X-ray image taken after implant placement and cover screws (first stage surgery) and bone augmentation.



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

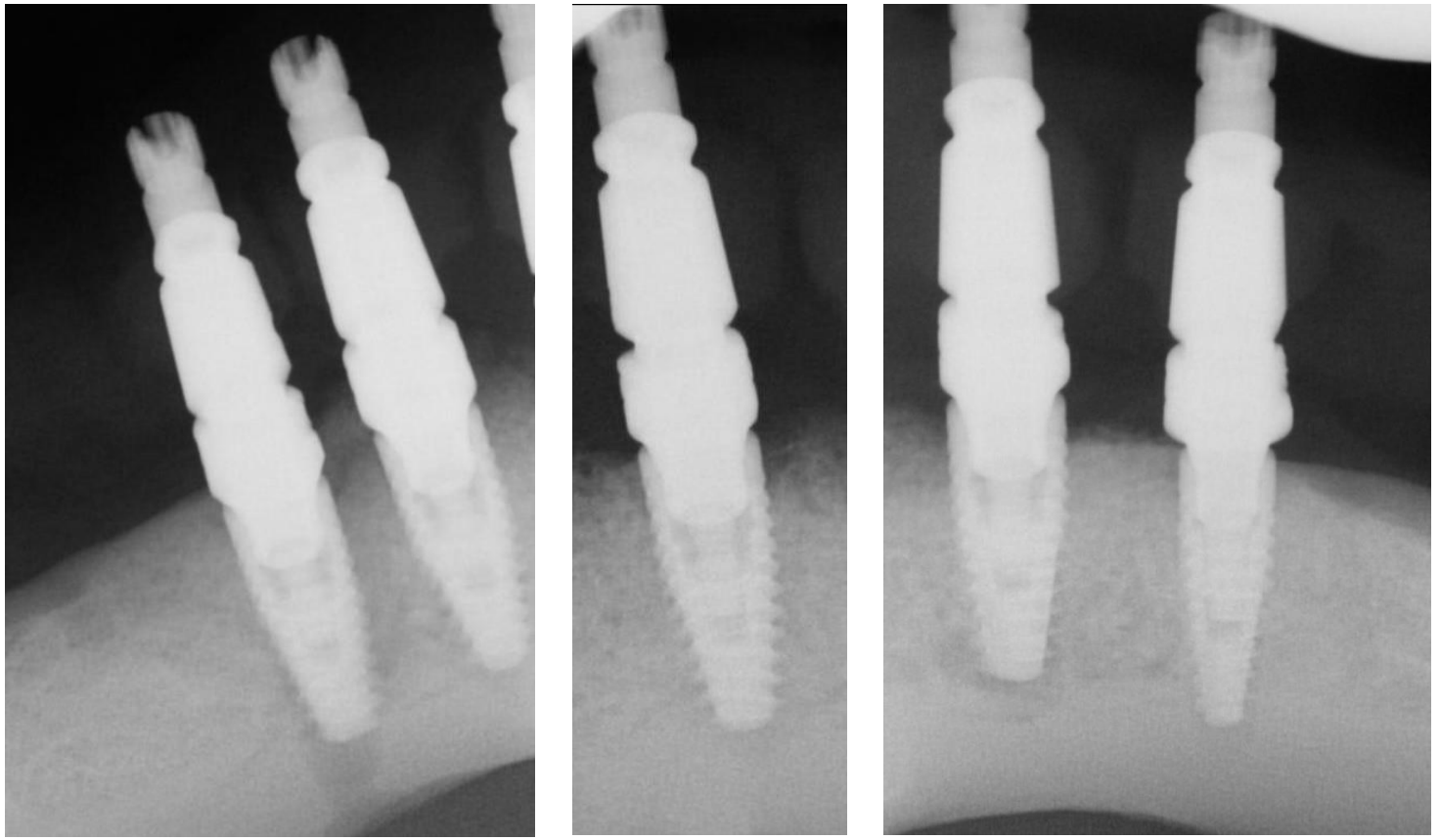


Figure 3 – X-rays of final impression using Dess® Conical BLT transfer

The primary impression was taken using DESS® Conical BLT transfer, followed by a final impression with acrylic jig. Jaw relation was recorded using a lower screw retained record block to obtain patient's bite registration.

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 #35 - 45.

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 4 – Interocclusal and occlusal photos after delivery.

Conclusion

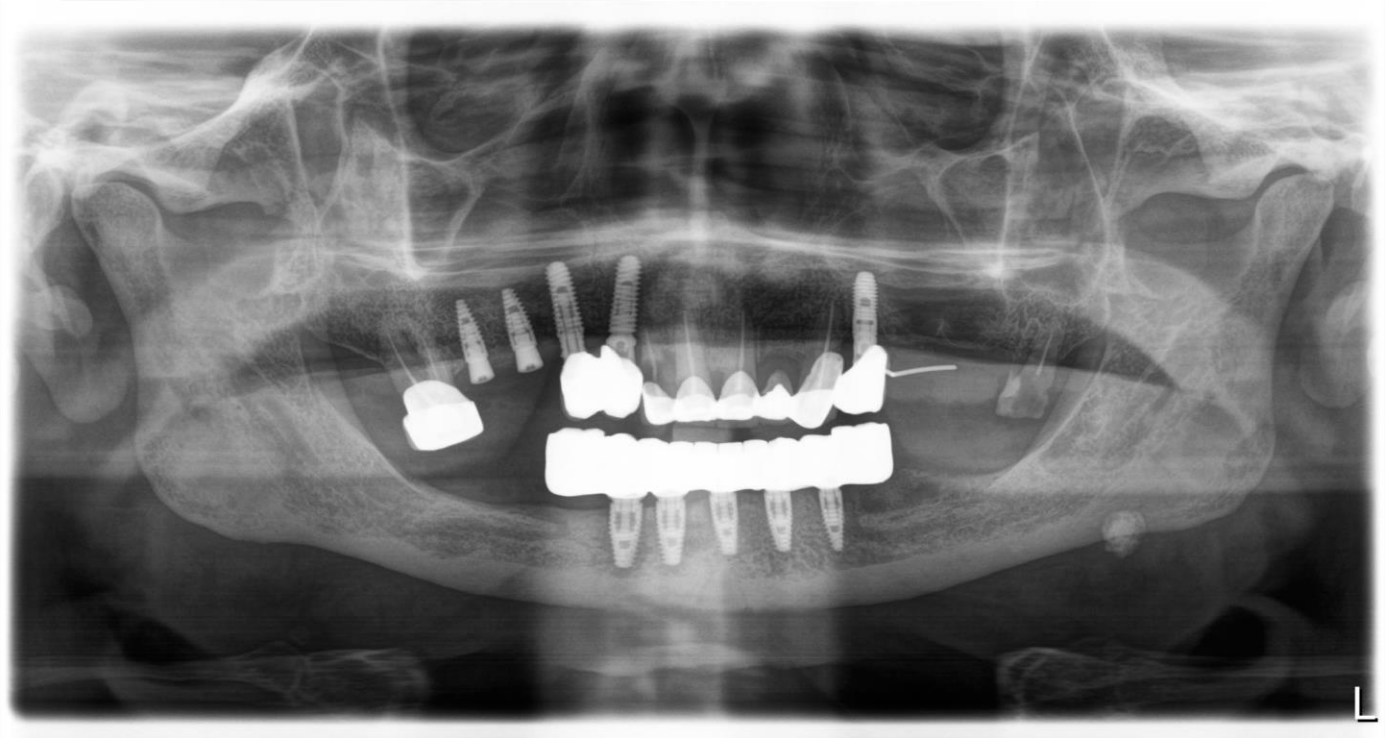


Figure 5 – Panoramic View X-ray after final delivery of Implant restoration

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

The placement of the implants into edentulous full arch areas showed a good success rate given the patient's age and overall dental health.

The implant's bone adaptation observed in this patient after three month period is satisfactory. The prosthetic restoration process for the full lower arch restoration was also completed in a smooth and timely manner resulting to functional and esthetic results.

DESS

Prof. Fawaz Al-Qahtani

Saudi Arabia

- 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

DESS


DESS