Case Study: Maxillary Torus No Match For Implant Retained Denture

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The patient was a healthy 82 year-old female. Following extensive periodontal surgery, six maxillary and teeth #’s 18, 20-28 and 30 were maintained for well over 25 years. A maxillary swing lock appliance replaced teeth #’s 2,3,4,5,12,13,14 and 15. A conventional mandibular partial denture replaced teeth #’s 19, 29 and 31.

A large maxillary torus prevented the possibility of fabricating a conventional maxillary complete denture after it was determined that teeth #’s 6-11 were no longer adequate abutments. Removable of the maxillary torus could be a complicated procedure for this patient. The patient was insistent that she be restored immediately with some appliance following extraction of the periodontally involved #6-11.

Surgical Placement

It was decided that dental implants would be surgically placed in the maxillary arch. Because of the large torus, a horseshoe shaped transitional denture was fabricated for the patient during the integration process. However without a retentive mechanism this denture would have no viable stability and the use of denture adhesive during initial healing is contraindicated. Tapered 4.7 mm X 13 mm Screw-Vent implants were conventionally placed in the #4, 8,9, and 13 areas and 4.7mm X 16mm implants placed in the #6 and 11 areas.

Second phase healing collars were threaded into the implants and
the tissue allowed to heal around them. To improve initial stability and retention of the interim denture, IMTEC 15mm small diameter implants were immediately placed in the #5, 7, 10 and 12 areas and a 13mm IMTEC implant placed between implants #8 and 9. The surgical procedure was completed without complication and the patient tolerated the placement of the implants well.

**Provisionalization**

Upon placement of the dental implants and exposed small diameter implants, the transitional, horseshoe shaped denture was delivered using a soft liner. The small diameter implants worked well in stabilizing the denture, adding needed retention during the entire healing process.

A conventional mandibular partial denture was fabricated replacing teeth #’s 18, 19, 23, 24, 25, 26, 29, 30 and 31. After approximately two months, three of the anterior small diameter implants were removed and O rings placed in the posterior ones. The transitional denture was lined again.

**Hadar Bar**

After three months of integration, conventional implant impression techniques were used to fabricate a master cast for a new implant retained bar and Hader clip maxillary prosthesis. The remaining two small diameter implants were removed prior to final seating of screw retained bars. Six Hader clips were used to create adequate retention.

The patient was thrilled with the final esthetic and retentive prosthesis. A quality of life was restored after a relatively short period of time.
again proved to be an outstanding treatment option in an unusual situation.

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Figs 11-12 - Final prosthesis in place.