Case report: Immediate loading of intraorally welded implants

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_The 'Auriga Protocol'

_Dr. Luca Dal Carlo developed the "Auriga Protocol" for general dentists and specialists. The Auriga technique is indicated for implant rehabilitation in edentulous patients.

The purpose of the Auriga technique is to facilitate treatment from the partially or completely edentulous state to a full-arch fixed implant-supported restoration. There is no down time when the patient has a removable prosthesis. Through all phases of the Auriga treatment technique, the patient has fixed teeth. The Auriga protocol can also eliminate costly and complicated sinus augmentation procedures. Auriga protocol can be used for lower jaw rehabilitations as well.

This technique was presented for the first time in 2007 at the seventh AISI International Implant Congress in Bologna, Italy, and has been improved upon throughout the years.

Ten-year statistics for 14 full-arch cases with 121 implants and 193 prosthetic teeth, completed by the authors of this article, confirm the validity and reliability of this procedure.

No failed cases were observed during this time period.

_Advantages of the Auriga Protocol for the clinician

The need for a provisional denture, either complete or partial is eliminated. A maxillary sinus grafting procedure is unnecessary. Occlusal function will be restored with the benefit of a complete posterior tooth arrangement.

_Advantages of the Auriga Protocol for the patient

All of the advantages of a fixed prosthesis as compared to a removable prosthesis apply, including primarily the added comfort and experience of not having to function with a removable appliance.

The need for a maxillary sinus augmentation

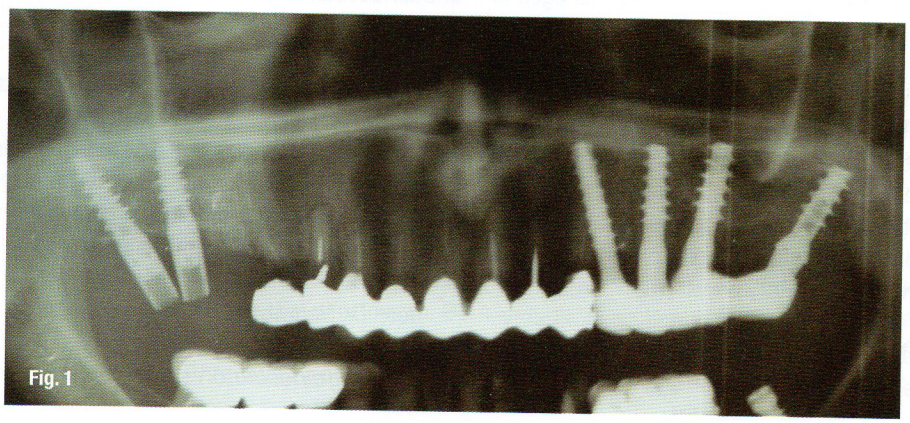
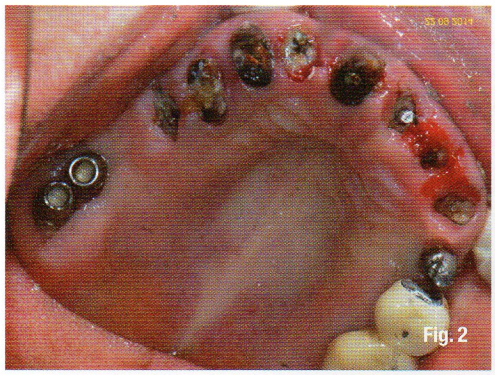
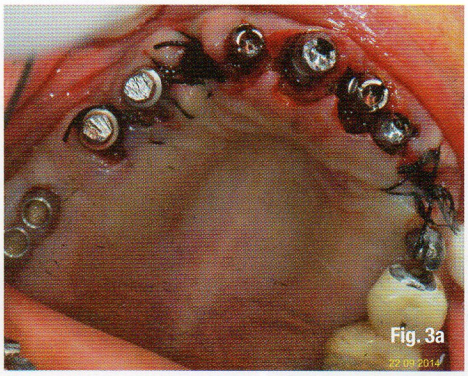
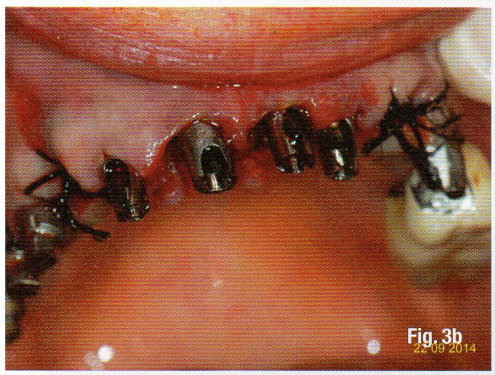
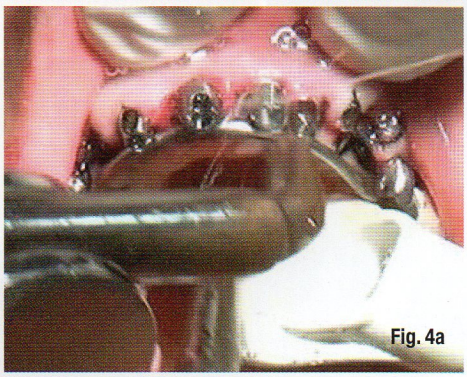


Fig. 1_Radiograph after implant placement in the upper right tuberosity region. (Photos/Provided by Dr. Shulman)









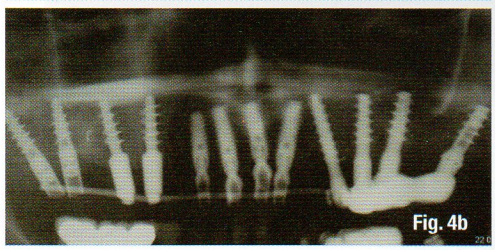


Fig. 2_ Intraoral photograph showing implants placed in the upper right tuberosity region.

Figs. 3a, 3b_Six new implants are placed immediately after extraction of the remaining teeth.

Fig. 4a, 4b_New implants welded with the titanium bar to the existing implants.

Fig. 5_A provisional fixed prosthesis is immediately cemented with temporary cement at the time of the surgery.

with its cost, possible discomfort and potential complications are eliminated.

Additionally, advantages include a restored physiological occlusion with improved masticatory efficiency results.

_Technical procedures

The Auriga technique consists of placing one piece of submerged screw implants in the right and left tuberosity regions. After four to six months, the patient's remaining periodontaly involved teeth are extracted and replaced with implants.

All of the implants are stabilized by means of intraoral welding to a titanium bar and a provisional prosthesis cemented with temporary cement. There is no need for a removable interim prosthesis.

The definitive fixed prosthesis is fabricated and inserted after the implants' integration.

_Case report

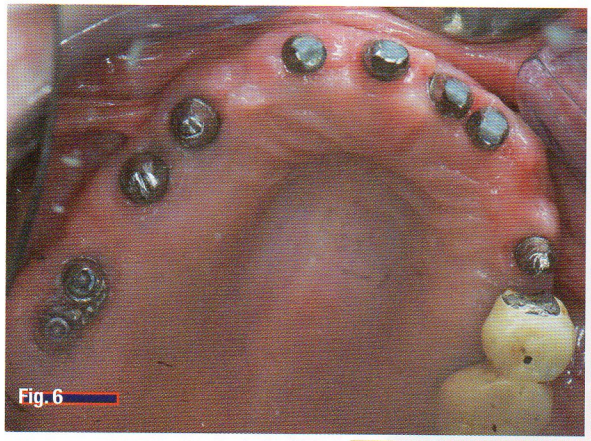
A healthy 63-year-old Caucasian woman presented for treatment at the office of one of the co-authors (LDC) with a metal-ceramic fixed prosthesis supported by natural teeth on the upper center right side and an implant-supported prosthesis on the left side.

All of the teeth supporting the prosthesis had massive secondary decay and endo/perio problems. Patient's remaining teeth were non-restorative.

The first step of the Auriga technique involved the insertion of endosteal implants in right maxillary tuberosity region (Figs. 1, 2).

After allowing for six month of healing, all remaining natural teeth were extracted along with the fixed prosthesis. Six root-form titanium implants were inserted immediately after extractions (Figs. 3a, 3b) and welded with the existing implants to a titanium bar (Figs. 4a, 4b.). A provisional prosthesis was cemented with temporary cement (Fig. 5).

By inserting a prosthesis with adequate retention and stability the same day as the surgery, patient complaints and discomfort can be avoided or substantially reduced. The instantaneous sta-



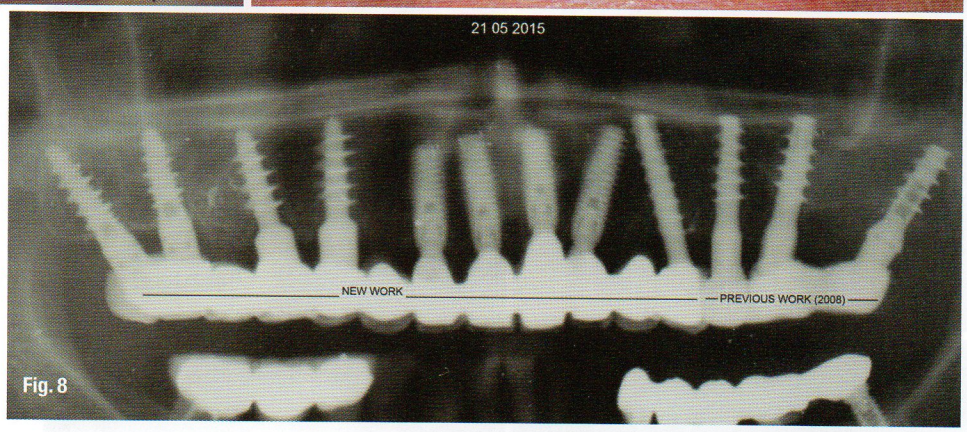


Fig. 6_ Titanium bar removed, implants reprapped, final impression taken and ready for definitive prosthesis cementation.

Fig. 7_ The fixed prosthesis cemented.

Fig. 8_ Panoramic radiograph taken after insertion of the definitive prosthesis.

bility that results from the splinting can reduce the risk of failure during the healing period.

After the implants integrated, the titanium bar removed implants were ready for the impression. (Fig. 6).

Fixed prosthesis was fabricated and cemented (Figs. 7, 8). A lingualized (lingual contact) scheme of occlusion was selected.

An adequate horizontal overlap was included to guard against interference within the functional range; the amount was determined by the jaw relationship. A vertical overlap was used for appearance.

_Conclusion

The Auriga technique, which includes intra-oral welding, allows immediate loading of entire arches. Among the advantages are immediate stabilization of the implants, immediate provisionalization, reduced risk of failure during the healing period, elimination of errors caused by unsatisfactory impression making and a potential reduction in patient complaints and discomfort.

Overall, the Auriga technique is a viable treatment protocol for bilateral as well as unilateral situations._

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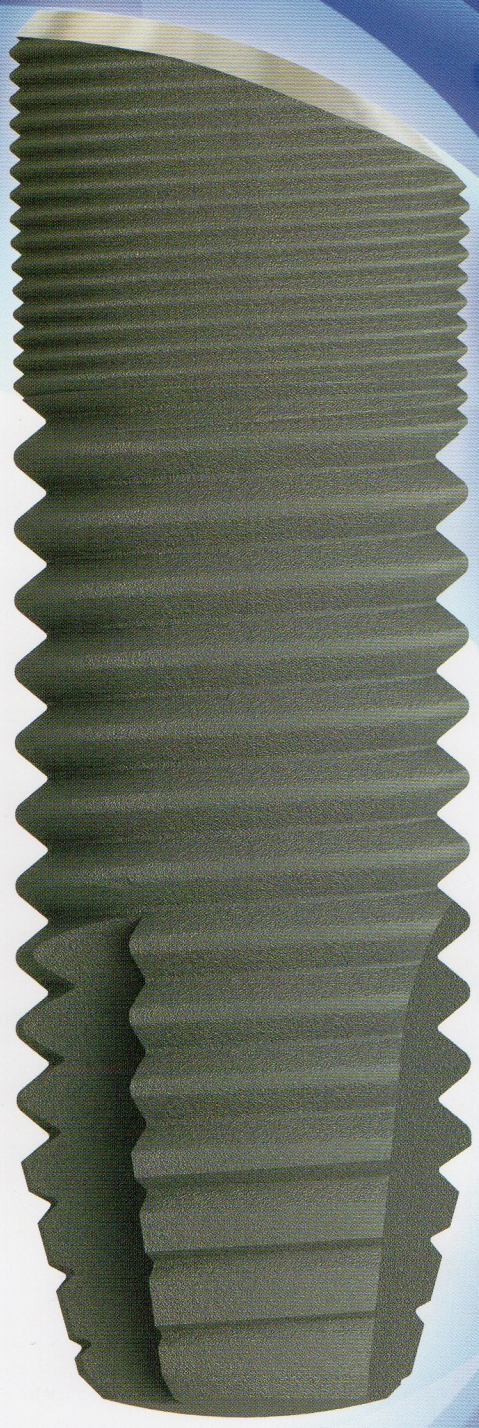

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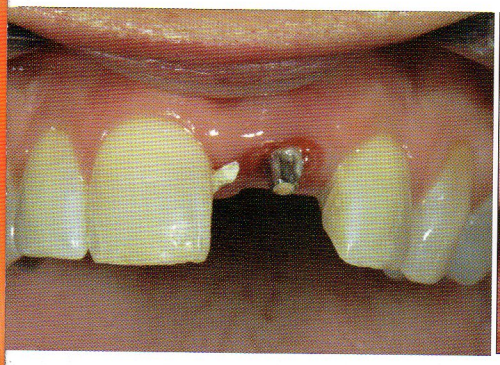

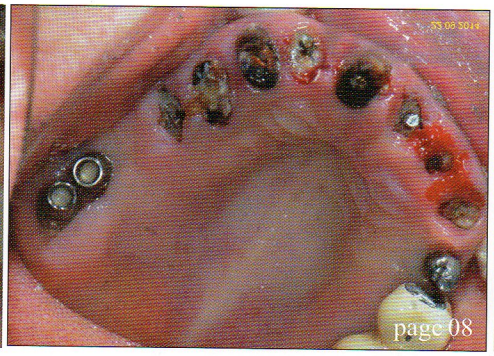

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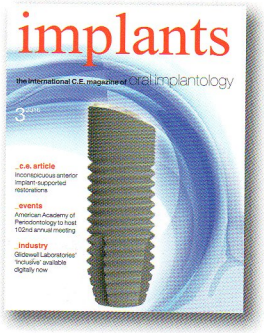

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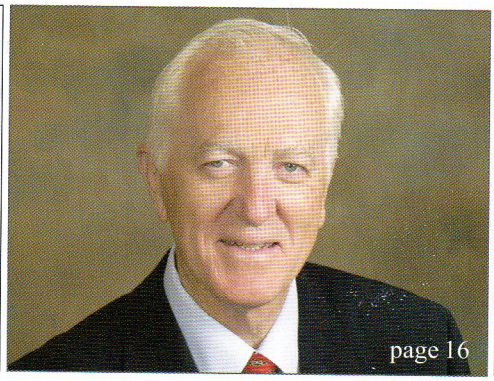

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