

Variations in Designing: Simple Prosthetic Solutions, in Complex Cases, for a Successful Overdenture



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The placement of dental implants with surgical guides, allows the Denturist and surgeon to rehabilitate the patient respecting the biomechanics and aesthetics basic rules.

However it is not always possible to insert the fixtures in places or with the inclinations we desire, without resorting to surgical techniques of bone augmentation, in those long term edentulous patients or in those who have a strong functional remodeling of the alveolar processes due to a mucous supported prostheses.

In these cases the clinician may have to make a choice: the first is to undertake more or less complex restorative procedures; the second is to insert the implants where he finds sufficient and quality bone and suitable appliances while trying to avoid future prosthetic issues.

We will discuss a peculiar case in which we had to “upgrade” a rather new prosthesis that was well constructed, with the placement of implants and attachments, in a very unfavorable anatomical situation and without doing any major reconstruction.

The patient a woman, 60, non-smoker in good general health is a long term denture wearer.

Recently, new complete maxillary and mandibular dentures were delivered. Both well designed and constructed and aesthetically well-accepted by the patient. Unfortunately there were complaints about a certain lack of stability.

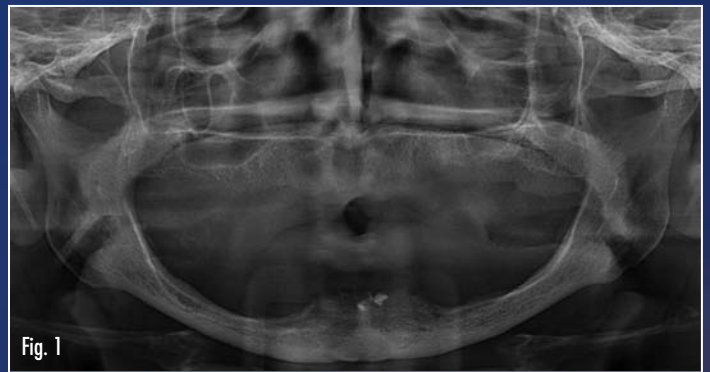


Fig. 1



Fig. 2



Fig. 3

The patient then decides in favour of the placement of two implants. A procedure that she had previously refused to face.

The anatomical conditions were rather unfavorable; the mandible is severely atrophic in the posterior regions and atrophy in the interforaminal area, with the complication of a third skeletal class. (Fig.0) (Labat where is Fig 0)

During the first surgery the surgeon proceeded with a full flap and once the ridge was reduced to find adequate thickness he inserted two implants in a very small area where he found sdequate bone with good thickness, height and proper consistency.

We chose a two stage surgical technique with the submersion of the implants to ensure the osseointegration without any occlusal trauma.

At the unveiling of the implants, once we positioned the healing abutments, we began the evaluation of the prosthetic spaces.

The mandibular implants were placed where there was adequate bone. Unfortunately this resulted in the implants being placed slightly too far labially and into the vestibule. To the point that they emerge completely within the vestibular resin flange (Fig.1).

Due to the small thickness and the consequent fragility of the labial flange individual locator or ball abutments would of resulted in a total failure in the aesthetics (Figure 3).

We opted therefore for the construction of a bar with UCLA abutments and castable low profile attachments Ot Equator, considered to be the only viable solution by virtue of the extremely reduced space available. (Fig.4-5)

The silicone mock-up of the previous prosthesis was necessary and helpful in order to better evaluate the available spaces.

The use of castable attachments allows us to increase the stability of the future mandibular denture, and their positioning creates a "stability area"; this can be seen in joining the attachments with a virtual line (Fig.6-7).

Once the bar was casted we are in effect half done (Fig.8). We also decided to provide a reinforcement structure in the resin with the castable prefabricated components, manufactured directly on the master model, all with the aim to take advantage of all the space available, up to last tenth of a millimeter.

With the use of block out wax we eliminated all the undercuts of the metal containers plugged onto the Ot Equators (Fig.9), in order to obtain more room to bond passively the retentive caps were cast into the framework. The structure covering the whole bar was completed in resin. (Fig.10-11).

We put a opaque pink over the metal structure and then put it inside the prosthesis (Figs.12-13); once the prosthesis

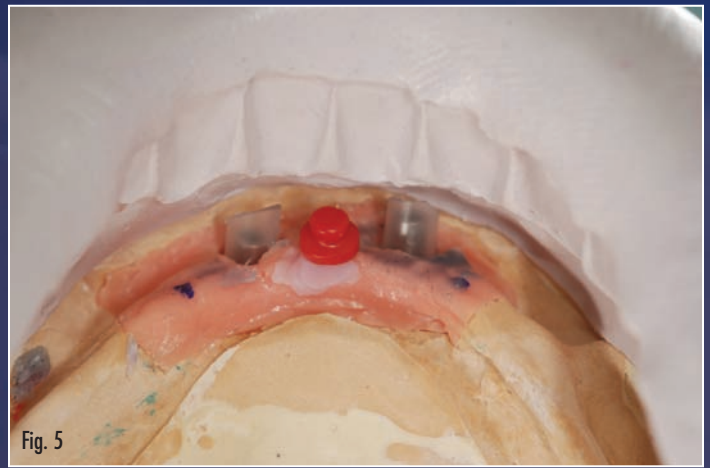




Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13

existing denture (Fig. 19) to the complete satisfaction of the patient.

This mutual satisfaction is the goal of our work. To get there we have to choose and use the best materials on the market. Our experience, our competences will advise us which project is the best, without forgetting that communication with the patient is mandatory and is the base of every project. There is no ideal, generic treatment plan for all edentulous patients but there is an ideal treatment plan for "that" single edentulous patient. ■



Fig. 14



Fig. 15



Fig. 16

finished and polished we replaced the black laboratory processing caps with the suitable ones in accordance of the prosthetic retention we desired (Fig.14).

Comparing the initial situation (no bar Fig.15) with the final (with bar and Fig.16) it is clear that we obtained a good result with extreme simplicity; we provided a robust, stable prosthesis with good aesthetics. We managed to draw back the attachments to the center ridge, despite the vestibular emergence of the implants (Fig. 17-18), while maintaining the

About the authors

Emiliano Ferrari, MDS, was born, studied, lived and worked in Bologna. He received his dental maturity at the institute L. Dehon Bologna in 1991 with the vote of 60/60. He graduated in dentistry from the University Bologna in 1996 with the vote of 110/110. He attended the annual courses and advanced courses in Italy and abroad with Dr. A. Fonzar, T. Testori, A. Scipioni, R. Baron and C. Clauser, U. Covani, P. Malo, S. Wallace, D. Turnow. In the period 2010/12 he attended an advanced course at New York University (New York, NY) and in June 2012 achieved "the American postgraduate certificate in implantology and oral rehabilitation". It is currently tutor for the program at the New IANYUP York University. He



Fig. 17

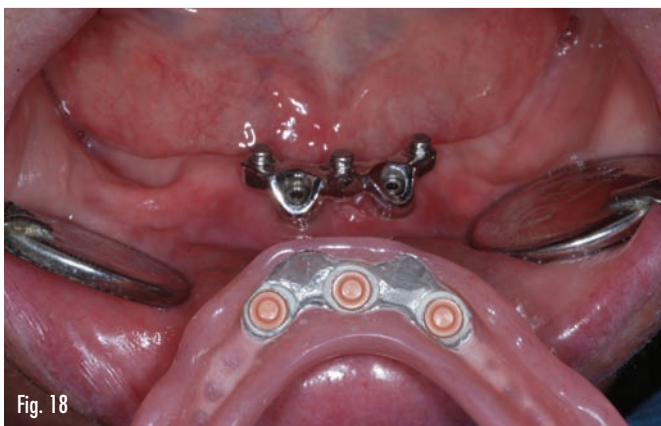


Fig. 18



Fig. 19

works in Bologna and province dealing mainly with surgery and prosthetics.

Gianni Storni, MDT, was born in Bologna, where he lives and works. He graduated in 1985 at the school for dental technicians' Village of the Child "of Bologna. 1985/1986 advanced course of English at "British School" of Bologna. 1986/1987 He worked at the dental laboratory "Character Bologna, one of the largest laboratories in the city, where you It manufactures all types of prostheses. Log in now to Rhein83 1987/1988, producing attacks of new conception for those times, castable with a system retention given by spheres and retentive elastic caps. She directs the laboratory of Rhein83, where collaborating other 2 dental technicians are proposed along with him to the disclosure of system. 1987/2000 has participated in numerous conferences in Italy (ANTLO of Vicenza, Friends of Brugg of Rimini, Dental Colloquium Brescia, Milan and other Dentaltechnica) and as rapporteur as auditor, to keep abreast of new techniques sector. The main courses held are as follows: at laboratories in Italy and in many European countries (Greece, Turkey, U.K. Germany) and outside Europe (Israel, South Africa, Korea, Australia, Taiwan, USA) organized by distributors of products Rhein'83 courses that contributed to divulgarsi products Rhein'83. In particular he taught at the University of Seoul, Korea, at the school for dental technicians in South Africa.



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