

ABSTRACT

The statistical analysis was performed with STATA13 (StataCorp. 2011. Stata: Release 12. Statistical Software. College Station, TX: StataCorp LP).

RESULTS: The psychological condition of the patient improved after the prosthetic rehabilitation, irrespective of the stage of the study.

Total scores of the OHIP-49 questionnaire in the experimental stage are lower than total scores before the RPD insertion and in the control stage. Patients in the experimental stage had a better quality of life, from both a psychological and a functional point of view.

Despite there aren't statistically significant differences regarding problems during the two stages of the experimentation, these have occurred less frequently in the experimental phase, in particular regarding decubitus ulcers, additional controls and necessity of clasps adaptation. On the other side during experimental stage an increased loss of occlusal contacts was recorded.

The most important changes of the OHRQoL took place in the first three month after prosthesis insertion.

CONCLUSIONS: Although RPD requires longer period of adjustment compared to other types of rehabilitation, the partially edentulous patient obtains benefits from RPD's use.

Edentulism rehabilitation improves patient conditions, especially with the use of proximal plates, both from a subjective and clinical perspective.

The addition of proximal plates on the provisional RPD with wire clasps has a positive impact on denture's functionality and on OHRQoL.

For a restricted number of patients the rehabilitation with RPD has a negative effect on OHRQoL, recommending the use of different types of prosthesis.

Introduction of a system for choosing and placing the anterior teeth of complete dentures

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BACKGROUND: The correct choice and placement of artificial teeth play an important role for the success when a patient is rehabilitated with a complete denture; so most of the issue of the esthetics of a complete denture depends on the correct tooth position and the right choice of the artificial anterior teeth.

The aim of this poster is to introduce a new system, Dental Veneers Selection Form, (Dental VSF) (registered in: European Patent Bulletin. EP2759278 Device and methods for manufacturing dental prostheses. 31/2014: 204. Available at <https://register.epo.org/espacenet/regviewer?AP=14000336&CY=EP&LG=en&DB=R>) for choosing and positioning artificial teeth in the anterior region of complete dentures.

METHODS: The Dental VSF system is a system consisting of 18 maxillary and 6 mandibular anterior molds. The molds differ, exactly like the traditional ones present on the market, in size and shape. The peculiarity of the system is that the six teeth of each mold are represented by veneers, with intact incisal edges, and they are connected to each other on the lingual surface by a fiber that allows to each veneer some degree of movement. During the esthetic and phonetic test it's possible to choose the most suitable mold in size and form, and, after removing the anterior wax rim, from canine to canine, to place the chosen mold, to give the desired overjet and over-

bite, to change the tilt of a singular tooth for individualizing the denture with some characterization. After the aesthetic and phonetic test, the technician makes a silicon template in order to record all the information sent by the dentist and in order to be able to place the teeth of the dental mold corresponding to that chosen with the Dental VSF system.

RESULTS: The Dental VSF system allows the dentist to not delegate the choice of most suitable mold to the dental technician, but to choose it directly on the face of the patient, trying on the different ones without having to work the heated wax. Moreover, the system allows to involve directly the patient about the shape and size of the teeth, and also about the overbite and any individual characterizations. The use of the Dental VSF system may be extended to implant supported dentures and to CAD-CAM technology: the assembly may be scanned and the scanned image may be used to design a screw-retained denture or a Toronto bridge.

CONCLUSIONS: The Dental VSF can be an useful system to try simply the anterior maxillary and mandibular molds, different in shape and size, and at the same time to change the buccal-palatal inclination of each tooth.

Preliminary study about the efficiency of diode laser compared with retraction cords used for exposing the finishing lines of dental abutments before the optic impression

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BACKGROUND: Different tissue displacement methods have been used to expose the finishing lines before the final impression. Recently, the diode laser was proposed as an innovative instrument to achieve the conditioning of the gingival sulcus. The aim of this study was to evaluate the efficiency of diode laser to expose the finishing lines of dental abutments, comparing the results with the conventional impression technique with retraction cords before the optic dental impression.

METHODS: A group of 21 adult patients, 11 men and 10 women, requiring a tooth supported fixed partial denture, were enrolled at the Department of Surgical, Oncological and Oral Sciences of University of Palermo. The following inclusion criteria were observed: aged 18 to 75 years, no systemic diseases, no medical devices, no allergy to dental materials used, no pregnancy, good oral hygiene (no bleeding on probe, probing depth < 3 mm, no gingival recessions). All the enrolled patients underwent to an oral hygiene session 15 days before tooth preparation. Tooth abutments for complete crowns with iuxta-gingival chamfer finishing line were prepared; then patients were randomly divided in 2 groups to receive the final impression either with retraction cord technique (RCT) (12 patients, 18 abutments) or with diode laser technique (DLT) (9 patients, 16 abutments). For the RCT a not impregnated single cord (size 0, Ultrapak®, Ultradent, USA) was used. For the DLT a laser Epic 10 by Biolase® was used, the peak power was 1,8W, the impulse duration was 100 microseconds and the pulse interval was 200 microseconds with an average power of 0,9W. The tip used had a diameter of 300 microns. The amount of gingival retraction for exposing the finishing line were calculated measuring the differences in height of clinical crowns at 3 different times:

before the exposure procedures (T0), after the exposure of the finishing line (T1) and 15 days after the final impression session (T2). The height of the clinical crowns was measured in 3 points of the buccal surface: mesial, midline and distal. Each measurement was performed in a line from the more coronal part (mesial, midline and distal) to the gingival margin using a software (Exocad, Germany) on the acquired image of abutments (Dental Software Image) after the optic impression (CS3500, Carestream, USA). The differences in height of clinical crowns between T1 and T0 and between T2 and T0 were compared and analyzed. Moreover the required time for each technique was recorded.

RESULTS: The mean age of the enrolled patients was 59 yr (± 12.1 yr) (61.1 ± 0.7 for the RCT and 56.5 ± 3.5 for the DLT), 11 men (5 for RCT and 6 for DLT) and 10 women (7 for RCT and 3 for DLT). The mean of gingival retraction ($\Delta T1-T0$) was 0.68 mm (± 0.3 mm) and 0.61 mm (± 0.07 mm) for RCT and DLT, respectively. The mean of coronal heights differences between T2 and T1 was 0.05 mm (± 0.3 mm) and -0.02 mm (± 0.4 mm) for RCT and DLT, respectively. For the RCT the requiring time was 210 seconds (± 98 sec.), while for the DLT was 17.1 seconds (± 4.2 sec.).

CONCLUSIONS: This preliminary results showed that the diode laser technique efficiency is comparable to the conventional retraction cord technique for the exposure of the finishing line of dental abutments. Both of techniques did not cause clinical relevant gingival recession after 15 days. Moreover, the laser technique was faster than the conventional one.

Different designs of prosthetic solutions for implant positioning. Case series

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BACKGROUND: Rehabilitation of edentulous patients with implant-supported fixed dentures provides significant psychosocial achievements due to the reestablishment of dentate state. Nowadays, the various kind of implants, and the high number of hard and soft tissue augmentation techniques allow the placement of implants even in the most challenging sites and help the clinician in achieving an ideal implant placement. The prosthetic restoration of implants is often compromised, delayed or modified from the initial treatment plan due to a number of problems that may be encountered. These complications can be surgical or restorative in nature such as compensate atrophic third-classes or compensate loss of vertical height due to massive bone resorption. The purpose of this Case Series is to present the prosthetic solutions adopted in a series of complex implant cases, in which we tried to avoid complex pre-prosthetic surgery, which could expose the patient to increased risks. The data and cases in this Case Series will be obtained from the records of patients who underwent surgical and restorative implant treatment at the Department of Dentistry and Maxillofacial-Surgery in Verona.

METHODS: Five implanto-prosthetic cases rehabilitated were assessed and compared with different techniques and methods to reach the fixed prosthesis: prosthesis on noble-alloy bar, prosthesis on Chromium-Cobalt bar, prosthesis on Carbon

bar, fixed prosthesis made by Zirconium Prettau® and amov-inamovible prostheses. For each case it was analyzed the hardness of the material, his elasticity, his specific-weight, his cost, his workability and his aesthetics.

RESULTS: The clinical success and patient satisfaction was achieved with all the different methods analyzed. The Clinician's main task is to know the range of possible methods to rehabilitate different implanto-prosthetic cases, and his assessment about which prefer and choose must consider many parameters such as the aesthetic one, functional one, analysis of the cost and hygiene maintenance.

CONCLUSIONS: After seeing these cases, it can be concluded that the various prosthetic solutions should be considered case by case. Rehabilitation therapy must always take into consideration the anatomical condition of starting, that often forces the surgeon to an implants compromise position, where you do not want to resort to reconstructive or skeletal bases surgery. In general we would like to remember that it's critical to keep in mind the fundamental role that a proper hygiene of the prosthesis have on long-term maintenance of implants and prosthesis themselves.

Prosthetic rehabilitation with partial removable and aesthetic dentures (Valplast®) in a patient with recurrent right TMJ ankylosis: a case report

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BACKGROUND: Among Temporomandibular joint (TMJ) disorders, ankylosis is considered to be one of the most debilitating: is characterized by articular bony or fibrous tissue fusion. A limitation of mandibular function with a severe reduction of interinsical opening, mandibular asymmetry, hypomobility and subsequent retrognathia are all consequences of the dentofacial deformity.

TMJ ankylosis may have different causes: trauma, which is the most common, local infection such as otitis media and mastoiditis, or systemic infections such as tuberculosis, gonorrhoea, and scarlet fever. Ankylosing spondylitis, rheumatoid arthritis, and psoriasis are all systemic diseases implicated in its pathogenesis.

Several techniques have been described for the management of TMJ ankylosis, however none of them has been considered consistently successful: autogenous tissue grafting or total alloplastic temporomandibular joint replacement (TMJ TJR). Furthermore, prosthetic rehabilitation of these patients is a demanding challenge for prosthodontists, due to their severe limitation of mouth opening.

The aim of this paper is to present the case report of a 45 years-old woman (E.B.), suffering from recurrent right TMJ ankylosis resulting from a Car Accident Related Trauma, who was treated by patient-fitted TMJ prostheses and prosthetically rehabilitated by flexible, aesthetic removable partial dentures (Valplast, Wilocs, Rome, Italy).

METHODS: The patient came to our observation with a history of a car accident related trauma in 2010, managed in another hospital: the mandibular fractures were treated by open reduction and rigid internal fixation (RIF) with three