

ORAL REHABILITATION THROUGH COMPOSITE PROSTHESIS

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Abstract: The paper presents the clinical case of a patient who needed oral rehabilitation through composite prosthesis (mobilizable, adjunct framework prosthesis and metal-ceramic fixed part) with special support and stabilization systems of extracoronar attachment type.

Keywords: framework prosthesis, composite prosthesis, metal-ceramic attachment.

Rezumat: Lucrarea prezintă cazul clinic al unui pacient care a necesitat reabilitarea orală prin protezare compozită (proteză scheletată mobilizabilă, adjunctă și parte fixă conjunctă metalo-ceramică) cu sisteme speciale de menținere sprijin și stabilizare de tipul culiselor extracoronare matrice-patrice. Am evidențiat superioritatea acestui tip de protezare din punct de vedere biofuncțional și biomecanic comparativ cu restaurările clasice parțiale acrilice.

Cuvinte cheie: proteză scheletată, protezare compozită, punte metalo-ceramică

INTRODUCTION

The therapy of the partial edentation through mobilizable prosthesis is most of the times required in the third age patients. The different clinical forms of edentations, as well as the prosthetic field of the patients made different practitioners accomplish composite prosthetic pieces with an optimum functionality and with a profound prophylactic character for the odonto-paradontal remaining units and the muco-osseous support.(1)

Composite prosthesis supposes the attachment of the adjunct mobilizable prosthesis to the fixed prosthesis, through certain special support and stabilization devices (especially, extracoronar attachments).(2,3) In this manner, one can obtain an efficient retention and a favourable aesthetic aspect, as well as the optimum repartition of the mastication forces, bringing about the prophylactic advantage of the soft and hard support tissues of the mobilizable work.(4,5,6)

The favourable consequences of this type of prosthesis are mainly due to the way in which the individual biomechanical, biomorphological and psychical conditions are optimized, taking into account a series of factors, such as: the number of edentations, length and location of breaches, the functional value of the remaining teeth, their position and the status of the

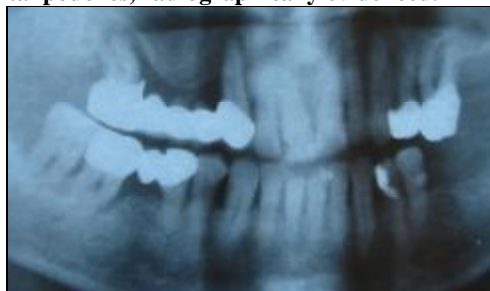
muco-osseous support, antagonists type, occlusion nature, psychical condition of the individual. (7,8)

MATERIAL AND METHOD

The paper presents the clinical case of a patient who came to our specialised setting, accusing strong pains in the right mandibular region for almost one year. Following the clinical examination, we put the diagnosis of dental abscess starting from tooth 46. We accomplish the emergency treatment and during the following session, we drew up a medical record for the restoration of the functions of the dentomaxillary apparatus.

Due to the fact that the patient presents old unfunctional attachments, not adapted marginally, we decided to remove them surgically. We eliminated the infection sources represented by the parodontal pouches at the level of teeth 16,13, 25, 26, 46, 47, which also registered a 2 and 3 degree mobility. (Picture no. 1). Due to physiognomic and socio-economic reasons, as well as with a view to heal the extraction sites, the patient worn two acrylic partial prostheses for a period of six months.

Picture no. 1. Osseous reabsorbtion and the parodontal pouches, radiographically evidenced.



After this period of time, we decided to accomplish the oral rehabilitation through two mobilizable prostheses, bearing two metal-ceramic fixed elements, in order to entirely rehabilitate the functions of the dentomaxillary apparatus.

The upper frontal group was strengthened through a five-element metal-ceramic bridge anchored on the remaining teeth, 1.2-2.3, which required pulp devitalisation (pictures 2 and 3). On the teeth around the limits of the edentation, extracoronar attachments within the support and stabilization systems were assembled.

CLINICAL ASPECTS

Picture no. 2. Aspect of the maxillary prosthetic field before polishing.



Picture no. 3. Maxillary stumps before impression.



Picture no 4. Mucosal face of the maxillary prosthesis and the fixed part with the special systems attached towards the distal



Picture no. 5. Matrix-patrix junction on the mucosal face



Picture no. 6. Oral face of the framework prosthesis



Picture no. 7. Metallo-ceramic fixed part cemented in the oral cavity (with extracoronary attachments distally present)



Picture no. 8. Final aspect of the composite prosthetic restoration, intraorally inserted.



After the cementation of the fixed part within the maxillary framework prosthesis, we trained the patient with a view to the insertion and desinsertion of the maxillary prosthesis, explaining the correct hygiene techniques and methods.

Regarding the inferior maxillary, we wished to accomplish a framework prosthesis similar in terms of anchorage systems to the maxillary one. Due to the fact that on this arch, the teeth of the frontal teeth are integral (picture no. 9), and that the premolars area was affected by profound decay areas, we decided to prepare them for polishing, view a view to use them as anchorage teeth for the fixed part of the prosthetic system.

Picture no. 9. Biterminal, mandibular edentate prosthetic field.



Due to the large coronary destruction of tooth 3.4, we decided to accomplish a corono-radicular device on this one. The teeth 3.5, 4.4, 4.5, which represent the anchorage teeth for the fixed part of the prosthesis required devitalisation. (Picture no. 10)

CLINICAL ASPECTS

Picture no. 10. Premolars ready for impression and the DCR cemented on tooth 3.4.



Mandibular framework prosthesis has a special support and stabilization system, of matrix-patrix type, and a main connector of lingual bar type. (Pictures no. 11-14)

Picture no. 11. Mucosal face of the mandibular prosthesis and the extracoronal attachments on the distal faces of the microprostheses from premolars no. 2.



Picture no. 12. Anchorage special system – mucosal face



Picture no. 13. Oral face of the prosthetic ensemble



Picture no. 14. Mandibular prosthesis inserted on the prosthetic field and the fixed cemented elements



For the protection of the inferior frontal group, respectively for the protection of the natural teeth from the night bruxism, the patient had developed in time, we decided to make a plastic groove.

At the end of the treatment, the patient was very pleased by the result obtained through this type of prosthetic restoration in comparison with the acrylic partial restoration, noticing the physiognomic improvement and phonation and especially regarding mastication. (Picture no. 15 a and b)

Picture no. 15. a and b: Occlusion aspect before and after the oral rehabilitation



CONCLUSIONS

This form of treatment of partial edentation induced the following results:

- The composite prosthesis system proved to be benefic due to the fact that it offers an optimum functionality of the mobilizable component part and the amplification of the mastication efficiency, as a result of the association with the fixed part, which holds the rigid anchorage support;
- Through the suppression of the hooks, a very pleasant physiognomy can be obtained;
- The biological tolerance and the psychocortical assimilation of the adjunct prosthesis is very facile

and rapid, offering an incomparable comfort as against the classic acrylic prosthetic piece.

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