# The optimalization of the prosthetic terapy using removable prosthesis

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## **Summary:**

The utilization of the removable prosthesis is very important because the principal cause of the hardships which can apear during the terapy of a possible complete edentation is assigned to the way how ensured "the passing" from partial to complete edentation, the reactions and the results which we obtain using the complete prosthesis depending in a great measure on the possibility of selection the type of the preceding deputy prosthesis.

In this paper we made a complex research about the correctness of using the removable prosthesis and the necessity to set up adequate preprosthetic treatments.

The correct utilization of the removable prosthesis offers a fast psycho - cortical adjustment through the achievment of the following objectives: the utilization of the recoverable remaining teeth, the integrity's morphological restoration of the dental arches in the functionality's use, the protection of the dento-periodontal and muco-osseus support and the parafunctions' moving off through reoptimization of the occlusal plane, too.

Key words: removable prosthesis, preprosthetic treatment, partial edentation.

#### Introduction

The partial edentation is the most dysfunctional state of dento-maxillary system accompanied by dental migrations, intermaxillary relationship's disorders in all the space's planes with articular results, muscular hyperfunctions with eccentric and painful tendencies, serious phonetical and physiognomical disorders – all of these requiring a preprosthetic terapy with functional recovery for what had remained, to prepare the "saved" status for an entirely new functional state and to assure a functional persistence [2, 4].

We studied aspects of the preprosthetic terapy because we observed a more reduced preoccupation for removing the inauspicious elements of the prosthetic field and the restauration's prognosis, expressed through the prosthesis' perfect integration in dento-maxillary system and longevity (reliability) is, because of the absence of the preprosthetic treatment made rigorous, reserved. So, it is necessary an active attitude of the doctor as early as the first stage of the contact with the pacient, starting with the anamnesis, continuing through the conceiving of the nespecific preprosthetic terapy's

plan (odontal, periodontal, surgical, orthodontic and of oral hygene) and finishing with preprosthetic preparation specific for the restauration using removable prosthesis (plastic surgery of the crown, optimization of the requirement of the recovered periodontium, optimization of the intermaxillary relationships) [4, 5].

### Material and method

We achieved a research on a group of 90 pacients with removable prosthesis or yielded to this type of terapy. In the *table 1* we showed the distribution of these pacients depending on the age.

Table 1

No of pacients	20-45 year old	45-60 year old	Over 60 year old
90	9	75	6
%	10	83,3%	6,6%

The assessment of the corectness of using removable prosthesis achieved analysing the specific features of the following parameters:

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- he analysis of teeth' periodontal status using like support for the anchorage
- the appreciation of the anchorage's methods which are used;
- he eficience of the prosthesis and overprosthesis methods:
- the functionality of the temporo-mandibular jaw [1, 3, 6].

At all the pacients, after appreciation of the general state, we trace out the detrimental elements of the prosthetic field to annihilate them through pre and proprosthetic methods related to the objectives of the utilization of removable prosthesis.

The clinical exam we completed with the radiological one through which we could appreciate the state of the teeth, periodontium and edentate crest.

These things permitted us to achieve a clinicostatistical research about the necessity of the pre and proprosthetic terapy and finally to present the elements of the strategy regarding this aspect of prosthetic terapy.

We followed, especially, the necessity to applicate the preprosthetic treatment at the cases with unsettled partial edentations and incorrectly settled establishing the procent of the cases with correctly settled partial edentations from the total number of 90 pacients.

The absence of the preprosthetic treatment shows in the most cases a neglect of the specific features of the prosthetic field, with negative effects upon the evolution and the prognosis of the treatment which we used.

We observe the highest rate in which we must use preprosthetic treatment (orthodontic, surgical, odontal, periodontal and occlusal rehabilitation) and the rate significant enough of the cases with unsettled partial edentations.

No of pacients	Partial unsettled edentations		Incorrectly settled partial edentations
90	39	30	21

The necessity to use preprosthetic treatment	Unsettled partial edentations	Incorrectly settled partial edentations
57	39	18
<del>%</del>	100%	85.7%

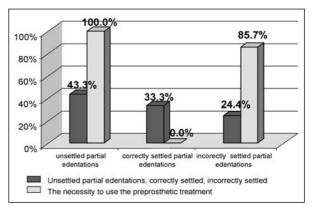


Table and graph 2. The numerical and procentual representation of the unsettled partial edentations, correctly settled and incorrectly settled parralel with the procent of the necessity to use preprosthetic treatment

## Results and discussion

From the *table 1*, we can observe that the age at which the partial edentation yielded to removable prosthesis appears is the most frequently between 45-60 year old. And this thing because at the younger people prevails the treatment using crown and bridge prosthesis and at the older people prevails the treatment using complete denture.

From the total number of 90 pacients, we identified a greater incidence of the partial edentation at the men because of the lower interest regarding prosthetic terapy Using the same graph, we represented parallel, depending on sex, the presence and the absence of the prosthetic treatment.

No of	Men	Women	Settled	Settled
pacients			men	women
90	54	36	24	27
%	60%	40%	44,4%	75%

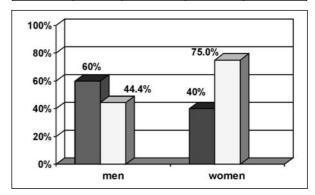


Table and graph 3. The numerical and procentual distribution of partial edentation, parallel with the procent of the pacients depending on sex

Further on, we made a statistical research about the incidence of the occlusal disorders, peri-

odontal problems, the state of bucco-dental hygene and the association of some general diseases, too.

No of patients	Occlusal disorders	Periodontal disorders
90	72	45
%	80%	50%

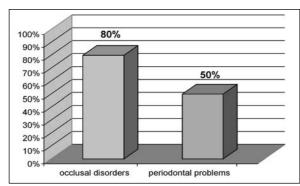


Table and graph 4. Representing occlusal and periodontal disorders at the cases with unsettled and incorrectly settled partial edentations

# 2. Bucco-dental hygene

No of patients	Scanty hygene	Satisfactory hygene	Good hygene
90	48	33	9
%	53,3%	36,6%	10%

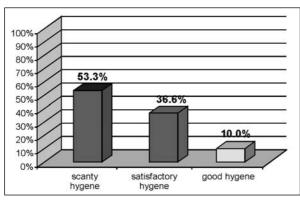


Table and graph 5 representing the pacients' concerns for hygene

3. Association of some general diseases (*Table and graph 6*)

#### References

- 1. Coca I., Coca V., Spring D. *Protezarea dentara mobilizabila*. Ed. Cerma, Bucuresti, 1995.
- 2. Dumitrescu S. *Restaurarea protetică mobilizabilă în edentația parțială*, Ed. Medicală, București, 1973.
- 3. Horga C. Diagnosticul ocluziei traumatogene cu evaluarea consecințelor nocive complexe asupra sistemului orofacial, Teză de doctorat, 2003, 78-86.

	Cardio- vascular diseases	Diabetes	Digestive diseases	Without general affectations
90	27	9	6	48
%	30%	10%	6.6%	53.4%

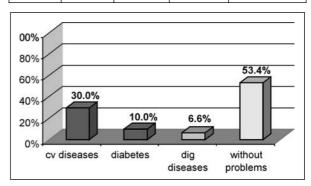


Table and graph 6 representing the association of some general diseases at the pacients with partial edentations

# **Conclusions**

- Although the utilization of removable prosthesis should be the privilege for the older people, we remarked the necessity to use it at the young persons;
- In the appreciation and the analysis of using the removable prosthesis we must take account of the time which had passed from the application in the buccal cavity, avoiding i fit is possible the prosthesis with muco-periosteal features;
- It is remarked the superiority of the composite skeletic prosthesis and of the overprosthesis, prefering to use specific methods of mentaining, support and stabilization;
- We must assure a great attention both to nonspecific preprosthetic terapy (odontal, periodontal, surgical and orthodontic) and specific preprosthetic preparation (plastic surgery of the crown, optimization of the requirement of the recovered periodontium, optimization of the intermaxillary relationships), correlating these treatments with the general state of the pacient.
- 4. Ionescu A. Tratamentul edentației parțiale cu proteze mobile, Ed. National, Bucuresti, 1999.
- 5. Ioniță S. Pregătirea preprotetică în tratamentul edentației cu ajutorul punților dentare, Revista Stomatologia, 1996, nr. 3, 4.
- 6. Suciu M., Ieremia L. Elaborarea unui ghid codificat în scopul stabilirii prognosticului pilierilor dentari de susținere ai supraprotezelor, ca formă de terapie a edentației parțiale întinse și subtotale. Stomatologia Mureșeană, 2000, 1(3-4): 77-85.

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