

STUDY REGARDING FACTORS INFLUENCING THE TREATMENT DECISION WITH CAST METAL REMOVABLE PARTIAL DENTURE

Florinel Cosmin Bida^{1*}, Norina Consuela Forna¹

¹“Gr. T. Popa” U.M.Ph. - Iași, Romania, Faculty of Dentistry, Implantology, Removable Dentures, Dental Technology

* Corresponding author: Bida Florinel Cosmin *e-mail*: drcosminbida@gmail.com...

ABSTRACT

Aim of the study. This study aims to analyze the main parameters that influence the treatment type and its variations, depending on the type of patients. Material and methods. The study was conducted on a group of 43 patients, 18 men and 25 women aged 42-80 years, the mean age being 63.2 years who were treated in the Faculty of Dental Medicine in Iasi. All patients participating in the study received prosthetic treatment with cast metal removable partial denture, taking into account both the particularities of the prosthetic field and the existing local, loco-regional and general diseases. Results and discussions. Following the analysis of the results, it was found that the main factor influencing the choice of the treatment with cast metal removable partial denture is the quality of the prosthetic field in proportion of 58,6%, followed by the patients attitude towards mobilizable dentures in proportion of 27,4%, the technical endowment of the laboratory in proportion of 9,3%, and the last parameters being considered are the loco-regional and general diseases, in proportion of 4,7%, because they do not have a major influence on the prosthesis itself but rather on the contraindications regarding the pre-prosthetic preparation of the prosthetic field.

Conclusions. The study shows that the main element taken into account when choosing prosthetic therapy with cast metal removable partial denture is the quality of the prosthetic field, a parameter surprisingly followed by the patients attitude towards mobilizable dentures and not by general conditions or technical equipment of the laboratory.

Key words: *cast metal removable partial denture, prosthetic field, prosthetic treatment*

INTRODUCTION.

The choice of a prosthetic therapy most of the time depends on more factors than we think, which is quite difficult to quantify from a statistical point of view, because we can encounter situations in which less objective parameters, such as the attitude towards mobilizable dentures of patients, may influence the choice of treatment. [1].

Most of the time we have to take into account the fact that most treatment plans in order to be implemented must meet some essential parameters, followed of course by parameters that can be taken into account and can influence in one way or

another the result of the prosthetic treatment. [2,3].

When considering the dental rehabilitation of a patient with cast metal removable partial denture, it is important to have a prosthetic field that allows us to use such a prosthesis, but at the same time we must consider the general conditions of the patient. These conditions can influence the stages preceding the treatment because cardiovascular diseases or some syndromes may be contraindications, and if for the realization of the cast metal removable partial denture additional maneuvers are needed, such as surgical ones, we are unable to choose such a treatment. [4,5].

PURPOSE.

This study was conducted to highlight the importance of the criteria taken into account when deciding to rehabilitate a prosthetic field with a cast metal removable partial denture. Moreover, through this study we tried to find out the correlations between the factors that influence the type of treatment and the interrelationships between them.

MATERIAL AND METHOD.

The study was conducted on a group of 43 patients, 18 men and 25 women aged 42-80 years, the mean age being 63.2 years who were treated in the Faculty of Dental Medicine in Iasi. All patients participating in the study received prosthetic treatment with cast metal removable partial denture, taking into account both the particularities of the prosthetic field and the existing local, loco-regional and general diseases. [6].

In conducting this study we considered elements such as: prosthetic field main features, general conditions of patients that could have contraindicated a certain therapeutic choice, the technical equipment of the dental laboratory and the availability of patients to wear removable prostheses.

Data from patient records related to the interview with the attending physician were used to quantify the results. At this interview, after explaining the therapeutic possibilities, patients were asked which is their attitude towards mobilizable dentures, an important factor considered in this case was whether patients had mobilizable dentures in the past or not.

At the same time, the best therapeutic possibilities were correlated with technical possibilities in the dental laboratory, because there were 4 cases in which the technical possibilities of the laboratory could not meet the complexity requirements of the cast metal removable partial denture needed[1-3].

RESULTS AND DISCUSSION.

Following the analysis and centralization of the results we found that the main parameter taken into account when

making cast metal removable partial dentures was the quality of the existing prosthetic field, the remaining teeth on the arch and the patient's requirements regarding the functions required to be performed by the future prostheses.

In both men and women, the features of the field dictated the therapeutic choice. For the best quantification of the parameters, in this study we discussed 3 particularities of the field: the degree of resorption of the edentulous ridge, the integrity of the remaining teeth on the arch and the presence of other pathological elements in the oral cavity.

In 4 cases we identified a severe atrophy of the ridge, in 18 of them an average atrophy and in 21 of the cases a minimum degree of atrophy with well-defined ridges, rounded, with dimensions over 6 mm. [chart1].

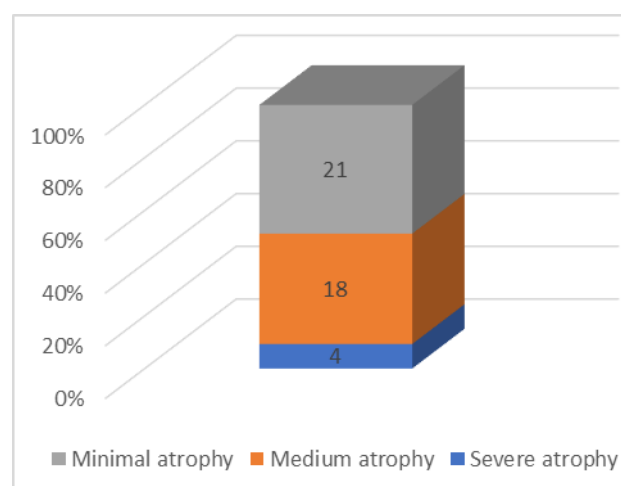


Chart 1 - Atrophy of the edentulous ridge

For the second parameter discussed, we identified the following: 10 of the patients had between 16-12 healthy or treatable teeth present on the arch, 19 patients had between 12-8 healthy or treatable teeth present on the arch and 14 patients had less than 8 healthy or treatable teeth present on the arch. [chart 2].

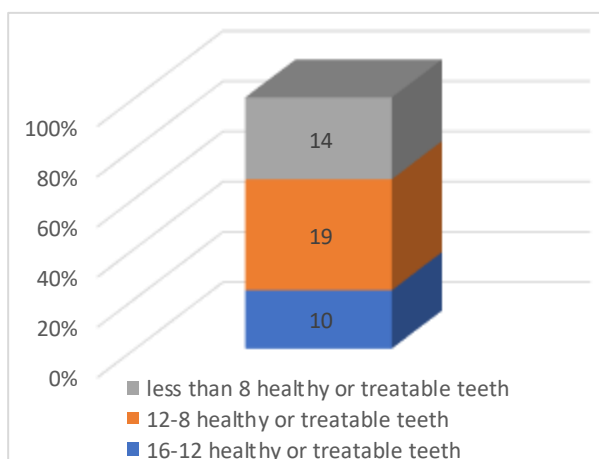


Chart 2 - integrity of the remaining teeth on the arch

Regarding the presence of pathological elements that could have hindered or prevented the therapy with cast metal removable partial dentures, lesions resulting from wearing poorly adapted old prostheses or irritative inflammatory formations were identified in 6 cases.

The attitude of patients towards mobilizable dentures was extremely different for men than for women. For men in a majority proportion (13 out of 18 patients) the most important parameter that prostheses should have met was that the mastication should be as good as possible. For women on the other hand (19 out of 25 patients) the most important parameter that prostheses should have met would have been the parameter related to physiognomic function. The prosthesis should have as few visible elements as possible (attachments, connectors etc.) and should be as stable as possible when performing physiological functions. [chart 3].

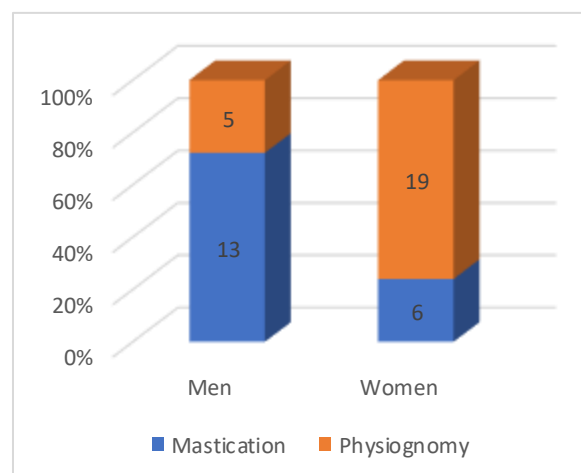


Chart 3- attitude towards mobilizable dentures

Another important thing to consider when choosing the type of therapy performed in the patients studied was the endowment of the dental technique laboratory. This parameter influenced the therapeutic decisions in 4 of the cases because the laboratory where the works were performed did not have the technical possibility to meet all the requirements for 4 of the cases. So we had to choose a simplified therapeutic option in order to achieve a correct oral rehabilitation. [chart 4].

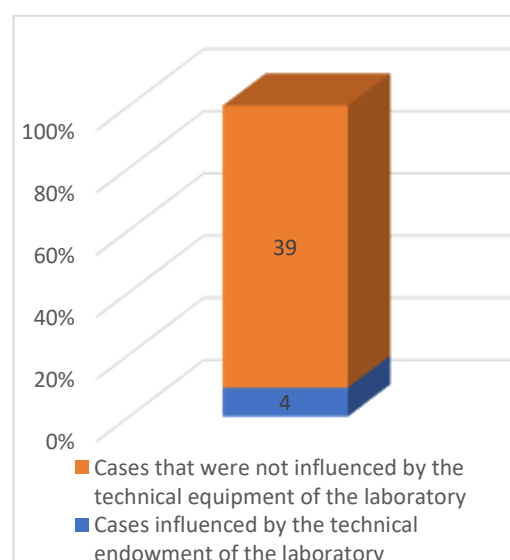


Chart 4- The influence of the technical endowment of the dental technique laboratory

The last parameters being considered are the loco-regional and general diseases because they do not have a major influence

on the prosthesis itself but rather on the contraindications regarding the preprosthetic preparation of the prosthetic field.

Out of all the patients participating in the study, 2 patients were identified with a history of pathologies that did not allow surgery to be performed in order to rehabilitate the field. One of the patients had suffered a heart attack earlier than 6 months and the second had a chronic treatment with bisphosphonates which determined the choice of therapeutic variants that did not involve previous surgeries. [chart 5].

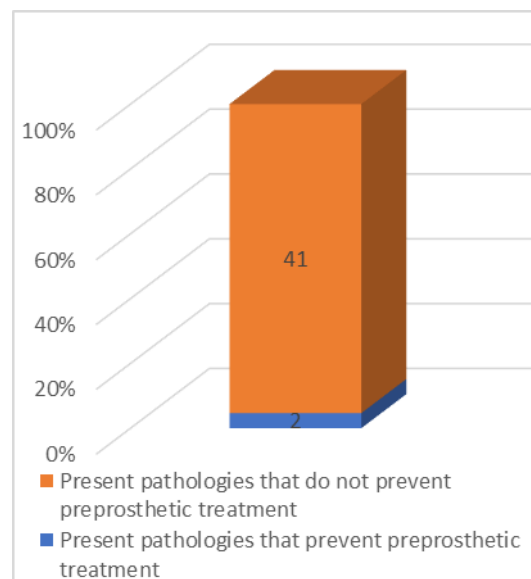


Chart 5- Present pathologies that influence preprosthetic treatment

CONCLUSIONS

The study shows that the main element taken into account when choosing prosthetic therapy with cast metal removable partial denture is the quality of the prosthetic field, a parameter surprisingly followed by the patients attitude towards mobilizable dentures and not by general conditions or technical equipment of the laboratory. [2,7, 14-16].

Following the analysis of the results, it was found that the main factor influencing the choice of the treatment with cast metal removable partial denture is the quality of the prosthetic field in proportion of 58,6%, followed by the patients attitude towards mobilizable dentures in proportion of 27,4%, the technical endowment of the laboratory in proportion of 9,3%, and the last parameters

being considered are the loco-regional and general diseases, in proportion of 4,7%, because they do not have a major influence on the prosthesis itself but rather on the contraindications regarding the preprosthetic preparation of the prosthetic field. [9-10].

Therefore, when performing oral rehabilitation of a patient with cast metal removable partial dentures, we must consider many more factors than the particularities of the prosthetic field and at the same time pay attention to patients expectations, because they can significantly influence the success of treatment.

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