

FOLLOW UP OF THE PATIENTS WITH REMOVABLE PARTIAL DENTURES-TECHNOLOGICAL ASPECTS

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ABSTRACT:

Partial removable dentures are solutions commonly used in practice, whether it is acrylic or cast prosthesis. The aim of our study was to follow the evolution of the oral health status after the prostheses application.

The study was conducted over a two-year period and 65 patients with removable partial dentures were examined. They came themselves to the dental office for regular check-ups. Ten of the dentures were represented by metallic removable partial dentures and 40 were acrylic and 15 were elastic dentures.

We analyzed the oral hygiene, the decay incidence on the remaining teeth, the integrity of the elements of the prosthetic appliances, the aspect of the prosthetic base and of the oral mucosa on the edentulous area, the presence or the absence of the prosthetic stomatitis.

INTRODUCTION

Removable partial dentures are a commonly used treatment for patients over 50 aged, with partial edentulous. These patients are a well-defined category in which dispensarisation is essential, even indispensable, to prevent local and loco-regional complications [1].

Our study aims to evaluate oral tissue damage on patients wearing removable appliances, quantifying the risk of prosthetic stomatitis. These diseases are inflammation of the oral mucosa, that comes into contact with the prosthesis, the most affected area being the

hard-palate mucosa. The mucosal irritation is caused most of the time by microbial adhesion to inner denture surface. Epidemiological studies report that approximately 70% of removable denture wearers suffer from denture stomatitis, *Candida albicans* being regarded as essential prerequisites for denture stomatitis [2,3]

The factors that determine the presence of prosthetic stomatopathies are local and general.

The local factors are represented by the duration of wearing the denture, the hygiene status, the type of prosthetic removable denture and longevity of the denture.

The general factors are represented by diabetes, nutritional disorders, excess of carbohydrates, immune deficiencies, chronic drug use [4]. In this study we focused on local factors, being selected patients with a good general condition, without chronic diseases.

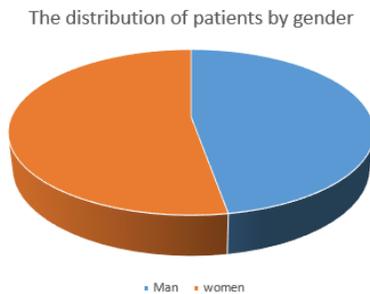


Fig.1 The distribution of patients related to gender

We appreciated the oral hygiene, the decay incidence on the remaining teeth, the integrity of the elements of the prosthetic appliances, the aspect of the prosthetic base and of the oral mucosa on the edentulous area, the presence or the absence of the prosthetic stomatitis.

The clinical categories were: Class I (bilateral free ended partially edentulous) 40 patients, class II (unilateral free ended partially edentulous) 15 patients, class III

MATERIAL AND METHODS

The study was based on a group of 65 patients, 35 men and 30 women (fig.1), aged between 54-70 years (fig.2), wearing removable prostheses for at least 3 years.

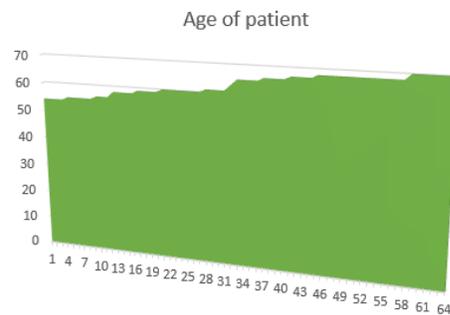


Fig.2 The distribution of patients related to age

(unilateral bounded partially edentulous 10 patients (fig.3).

The purpose of this analysis was to systematize the factors that cause the most frequent stomatitis and to better prevent the occurrence of oral cavity affections in removable prosthetic wearers.

Data centralization will also help us to identify certain measures in order to prevent the oral diseases.

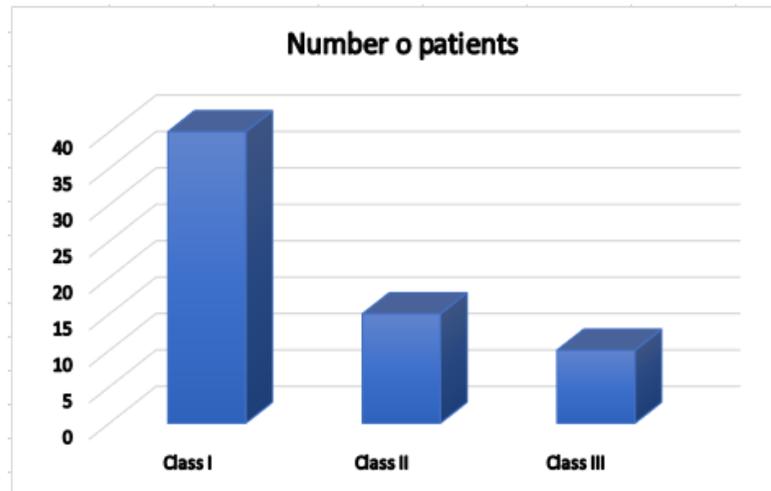


Fig.3 The class of edentations

Ten were represented by metallic removable partial dentures, forty were acrylic and 15 were elastic dentures.

First step consisted into the analyze of the patient's oral hygiene status. We registered 15 persons with good hygiene, 30 with medium oral hygiene and 20 with poor hygiene (fig.4).

RESULTS AND DISCUSSION

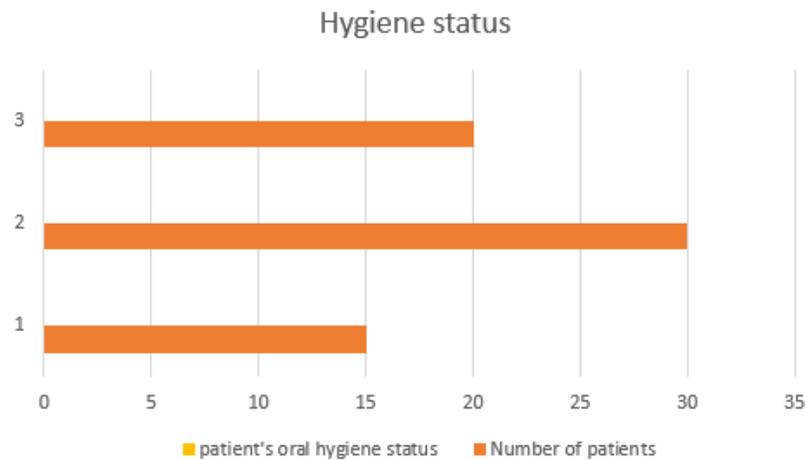


Fig.4 Oral hygiene status

The second step was a follow up of the changes present on the abutments teeth, in contact with the clasps and other prosthetic elements [5]. Decays were present in a larger number in case of acrylic prostheses, an aggravating factor being the poor oral hygiene status and the larger contact of the prosthesis elements with the teeth. Also, there was an increasing number of cavities at the root surfaces, as a result of the teeth overloading and their periodontal damage.

We analyzed the integrity of the prostheses and found a number of 22 altered prostheses : 15 prostheses had fractures of the clasps (removable cast dentures, 4 elastic partial denture and 8 acrylic partial denture), 3 had fractures of the artificial teeth and 4 prostheses needed relining.

Regarding the quality and the aspect of acrylic resin we found the following modifications:

- 20 patients presented no changes of the color and appearance of the base
- 23 patients presented wear of the resin
- 5 patients had important occlusal changes, as a result of teeth abrasion
- 7 patients with color changes of the acrylic resin and of the teeth
- 10 patients presented fractured and repaired prostheses

Examining the appearance of the mucosa we found that 34 patients did not had inflammation, 25 patients exhibited mild or moderate inflammation and 6 patients had severe signs of oral inflammation. The most frequent inflammatory manifestations were found for the patients with elastic prostheses (fig.5).

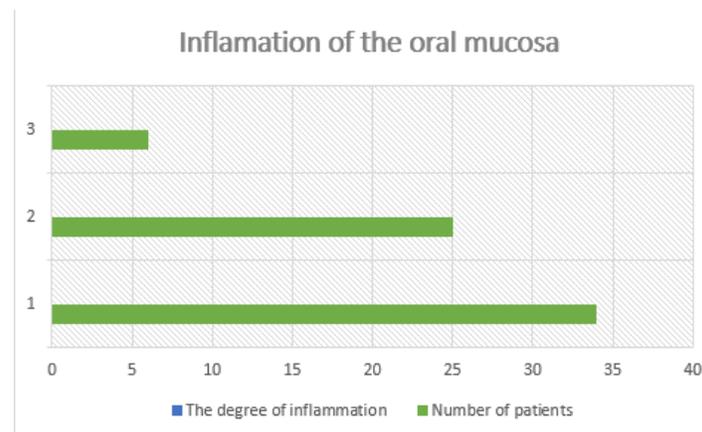


Fig.5 Inflammation of the oral mucosa

Following this analysis, we noticed that a fairly large number of patients wearers of removable partial dentures exhibited inflammation of the oral mucosa. Epidemiological studies report that approximately 70% of removable denture wearers suffer from denture stomatitis, *Candida albicans* being regarded as essential prerequisites for denture stomatitis. The elderly patients with removable acrylic prosthesis present difficulties on keeping the denture clean.[6-7].

That is why we have established a series of measures to prevent these diseases; first of all, a more careful patient education on oral health, and the implementation of some measures for a basic precautions that people can take in order to stop the occurrence of complications, such as: using an antiseptic and non-alcoholic mouthwash, using a soft toothbrush, maintaining proper nutrition and hydration, treating chronic dry mouth, more frequent presentation at periodic dental checkups [8]. The dentist and the patient share responsibility for the ultimate success of a removable partial denture and therefore,

collaboration must exist throughout the treatment, but also after it is completed.

CONCLUSIONS

The follow up is indispensable to patients with removable partial dentures. Oral inflammation occurs when the oral cavity or denture is not properly cleaned; maintaining an adequate oral hygiene can be prevented post-prosthetic complications.

The patient must have the knowledge for a correct use and maintenance of the denture and to ensure appropriate oral hygiene, in order for the prosthetic treatment to be a long term success.

The objectives of oral rehabilitations will be compromised without the patient's cooperation in oral hygiene and regular maintenance visits. Patient education should begin at the first appointment and should continue during the therapeutic steps; also, the treatment plan and prognosis are discussed, so that the patient understands the benefits and limits of prosthetic restoration and to assume responsibility for it proper maintenance.

The success of the prosthetic therapy mainly depends on the optimal collaboration

between the dentist, the dental technician and the patient, and only in this way a long-term result can be thought out and complications can be prevented.

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