BIOLOGICAL INTEGRATION OF COMPLETE AND PARTIAL REMOVABLE THERAPEUTIC SOLUTIONS

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ABSTRACT

Aim of the study The purpose of this clinical study was to evaluate the frequency and type of biological complications caused by partial and complete removable denture. **Material and methods** The study group was represented by Mihail Kogalniceanu patients during the four years 2010-2014. **Results** Using data from the anamnesis and clinical examination the following distribution was obtained for intraoral complications related to the type of dentures, entering data into SPSS 14 showed a value of p <0.5 which shows the lack of statistical significance between type of dentures and number of complications. **Conclusions** The most common biological complication associated with the acrylic removable dentures is represented by traumatic ulceration caused by prosthetic instability, followed by prosthetic stomatopathy present in both types of dentures.

Keywords: removable partial dentures (RPD), biological complications of RPD

INTRODUCTION

Removable partial dentures are a way to keep the remaining teeth on the arches (De Van, 1952). Although, as many others restaurative procedures affecting periodontal tissues (Review-Leon, 1977), RPD may have an adverse effect on the structures that are design to be kept (Carlsson, Hedgegard & Koivuman, 1965; Rantanen & colab, 1971). Do RPD cause iatrogenic effects as some experts think? Are patients satisfied with RPD? What is the life of this type of dentures? Can these dentures be worn? These are questions that many authors have tried to respond by conducting longitudinal studies. There have been few such studies and were generally made shortly after the dentures were inserted into the oral cavity. However, some studies (Carlsson and Koivumaa Hedegaard, 1976, Bergman, Hugoson & Olsson, 1982 , 1995; Vermeulen et al., 1996) were carried out at an interval of 10 years or more.

AIM: The purpose of this clinical study was to evaluate the frequency and type of biological complications caused by partial and complete removable denture.

MATERIAL AND METHODS

The study group was represented by Mihail Kogalniceanu patients during the four years 2010-2014 who came in order to get specialized prosthetic treatment consisting of removable dentures partially or complete. The group consisted of 99 patients, 48 men and 51 women, aged between 25 and 77 years, mean age of 55.8 years. The study group was selected from patients already wearing

dentures for at least 4 years, which had various complications (table 1).

Table 1. Study group – age, gender

Patients	No	Average age
Women	51	54,8
Man	48	56,9

After clinical examination and clinical paper for each patient the patients were grouped as follows:

►complete dentures wearers (Figure 1)

Figure 1

►complete maxillary denture wearers and partial mandibular denture wearers (Figure 2)

Figure 2

►complete mandibular denture weares and partial maxillary denture wearers (Figure 3)

Figure 3

►partial maxxilary and mandibular denture wearers (Figure 4)

Figure 4

In clinical paper of each patient were noted general data: age, sex, address. Was also mentioned edentulousness age number of previous and existing dentures complications, then was examined dentures stability, abrasion or fracture of artificial teeth, degree of cleaning of dentures and dentures discoloration, cracks or fractures of dentures, which may induce complications on underlying tissue or in the remaining teeth.

They were also asked how many times they have been to a dentist since they were inserted dentures for the first time in the oral cavity or the number of times a year they go to the dentist to examine how their dentures had adapted, avoiding thus the occurrence of various complications

Complications of wearing dentures that were examined and recorded are presented in Figures 5 – 8.

Figure 5. Ulceration

Figure 6. Caries of abutments teeth

Figure 7. Stomatopathy

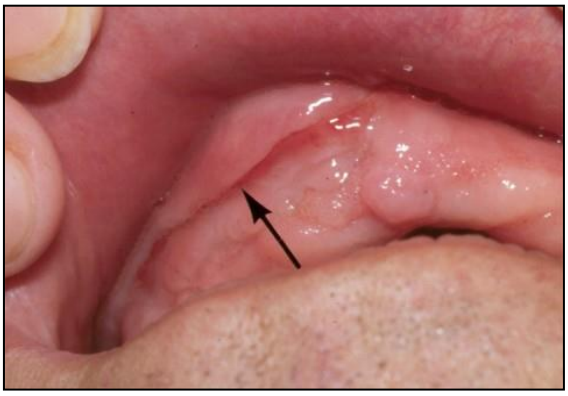
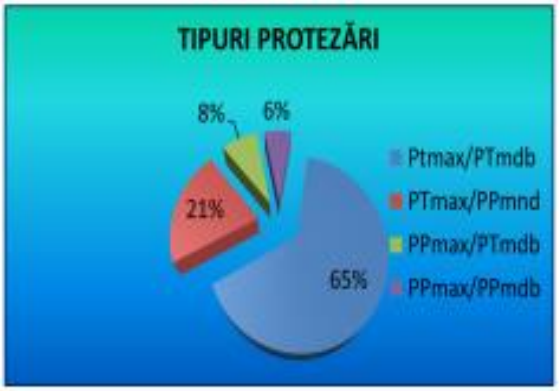


Figure 8. Epulis

RESULTS AND DISCUSSIONS

In the present study were evaluated 99 patients, men and women, wearing partial removable denture wearers and / or complete dentures for at least 4 years. Distribution of the group is shown in the chart below.

The distribution of patients on the type of dentures was as follows: 64 patients with maxillary and mandibular dentures (65%), 21 patients with complete maxillary denture and mandibular partial denture (21%), 8 patients with maxillary partial denture and complete mandibular denture (8%) and 6 patients with maxillary and mandibular partial denture (6%).



Distribution of patients by age, number of previous dentures, edentulous age and number of complications present in each patient are shown in the table below (Table 2).

Table 2. Distribution and type of dentures

General data	Min-Max	Average
Denture age	3-30	9,71
No of dentures	1-6	1,97
Edentation age	3-36	16,34
No of complications	0-2	1,13

The type and incidence of complications was shown in the table below (Table 3).

Table 3. Incidence of complications

COMPLICATIONS	Ulcerations	64
	Caries	47
	Stomathopaties	35
	Epulis fissuratum	5
	Hiperplazia	6

Dentures hygiene was evaluated as correct for 48.5% of cases, a percentage of 53.5% of the dentures had abrasion of artificial dental arches and 67.7% had discoloration (Figure 9).

Figure 9. RPD

Using data from the anamnesis and clinical examination the following distribution was obtained for intraoral complications related to the type of dentures, entering data into SPSS 14 showed a value of p <0.5 which shows the lack of statistical significance between type of dentures and number of complications (Table 5).

Table 5.

Complications	CE/CE	PE/PE	CE/PE	PE/CE	p
Traumatic ulcerations	40	2	14	8	.068
Caries	33	2	8	4	.643
Stomatopathy	17	3	12	3	.069
Epulis/ hiperplazions	6	1	2	2	.746

CONCLUSIONS

The main limitation of this study is the number of patients who addressed the clinic for prosthetic restoration, .For more accurately it should be corroborated with patients addressing private practice for removable prosthetic treatment. Given the limitations of this study relevant conclusions that can be drawn are:

1. The most common biological complication associated with the acrylic removable dentures is represented by traumatic ulceration caused by prosthetic instability, followed by prosthetic stomatopathy present in both types of dentures.
2. This study has brought to the fore conclusion, otherwise encountered in the literature, namely that there is no statistical significance between the type of dentures and the number of biological complications that may arise to the underlying support.
3. Also, the same was demonstrated also in terms of carious lesions present on the abutment teeth and there is no relevant connection between dentures type and number of cavities.
4. Another interesting aspect of this study is the lack of statistical significance between the type of dentures, the number of complications and their type. It is known that removable partial dentures usually have fewer complications than the complete removable due to the presence of teeth which ensures retention of the dentures much better than edentulous alveolar ridge.

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