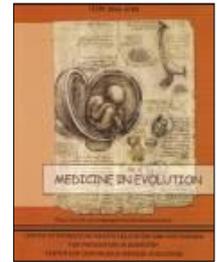


ETIOPATHOGENIC STUDY ON INCIDENCE AND PREVALENCE OF PROSTHETIC TREATMENT IN CHILDREN



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ABSTRACT

Therapeutic complexity of young edentulous patient approach consists of a plurality of factors and etiopathogenic individualization of each flank, corroborated with each case's particularity, that results in an aimed therapeutic approach.

Correlation of clinical examination with paraclinical evaluation, preponderantly anchored in the non-invasive and minimally invasive sphere, distinguishes the triggering causes of edentulous condition's whole pathogenic arsenal, the prevalence of this type of affection being constituted in a frequently found clinical reality in our practical activity.

The age group between 0-25 years of age consists of a patient lot with morphofunctional particularities that decisively put their mark upon the therapeutic approach in edentulous condition's territory, aspect that includes the correlation of these parameters with the general condition.

Keywords: prosthetic treatment, young edentulous patient.

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INTRODUCTION

Therapeutic complexity of young edentulous patient approach consists of a plurality of factors and etiopathogenic individualization of each flank, corroborated with each case's particularity that result in an aimed therapeutic approach. Correlation of clinical examination with paraclinical evaluation, preponderantly anchored in the non-invasive and minimally invasive sphere, distinguishes the triggering causes of edentulous condition's whole pathoge-

nic arsenal, the prevalence of this type of affection being constituted in a frequently found clinical reality in our practical activity.

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AIMS

This study had as objective the evaluation of the implications of the general condition, dento-periodontal and bone-mucosa status in the young patient, of the installed complications and

restorative treatments that were present during the break out of signs and symptoms of this clinical entity with profound implications for the oral equilibrium.

MATERIALS AND METHODS

After the application of inclusion and exclusion criteria, our work group was formed of 827 subjects. From the proposed research point of view, clinical data, with paedodontic importance, from the analysis of the observation chart were gathered and also data from complementary examination (study casts, panoramic X-ray). The study protocol for this group's patients contained data concerning the age, sex, background, socio-economic status, early loss of molars.

The group's structure based on age, dichotomises patients into three categories, which are: children, adolescents and youth, categories that will be taken into consideration as nominal or grouping variables in this paper's intercession. A percentage of 62% is showed in figure 1, of young patients with a need for prosthetic treatment, an important aspect because on specific psy-

chosomatic particularities for this category, a complex oral pathology begins to graft, at the border between juvenile dentistry and adult dentistry. For this period of time, therapeutic solutions are minimally invasive, both at the dento-periodontal support and also bone-mucosa support. Concerning the layout of the lot on sexes (fig.2), a higher percentage of female patients is observed for all age groups taken into account with this study, except adolescents, where the percentage is higher for male patients with 6% than for female patients. Within this research, specific testing was applied for different types of analysed data, like *Chi square Test*, *ANOVA* and *Pearson*, and after their application the main interest parameters were taken into consideration for discussion, for which, according to their values, the conclusions of the analysis were established.

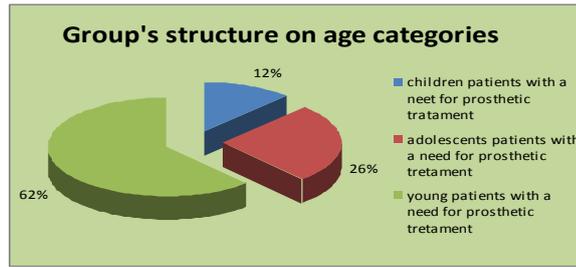


Fig. 1 Group's structure on age categories

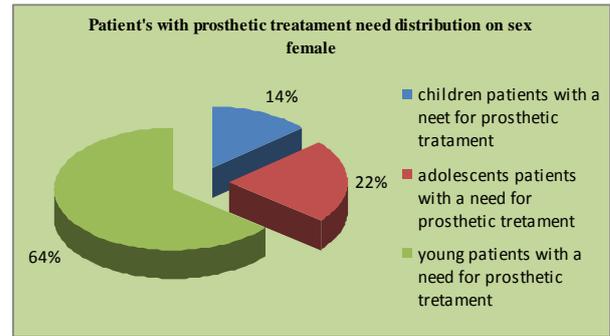
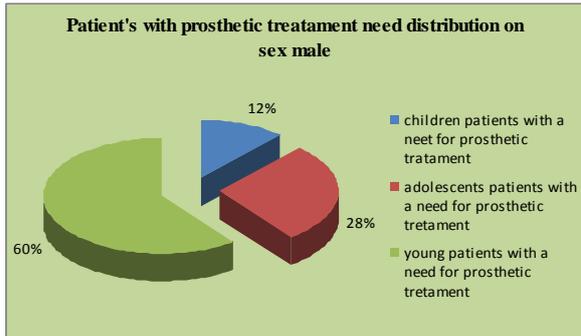


Fig. 2 Patient's with prosthetic treatment need distribution on sex and age categories

Application of Chi-square test shows a correlation between male and female

variables, in their quality of nominal variables, or grouping, as follows:

Table 1.

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
SEX * Age	827	100.0%	0	0.0%	827	100.0%

Table 2.

SEX * Age Crosstabulation						
SEX			Age			Total
			Children	Adolescents	Youth	
Male	Count		62	149	320	531
	% within SEX		11.7%	28.1%	60.3%	100.0%
	% within age		60.8%	69.3%	62.7%	64.2%
	% of Total		7.5%	18.0%	38.7%	64.2%
Female	Count		40	66	190	296
	% within SEX		13.5%	22.3%	64.2%	100.0%
	% within age		39.2%	30.7%	37.3%	35.8%
	% of Total		4.8%	8.0%	23.0%	35.8%
Total	Count		102	215	510	827
	% within SEX		12.3%	26.0%	61.7%	100.0%
	% within age		100.0%	100.0%	100.0%	100.0%
	% of Total		12.3%	26.0%	61.7%	100.0%

Table 3.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.423(a)	2	0.181
Likelihood Ratio	3.471	2	0.176
Linear-by-Linear Association	0.167	1	0.683
N of Valid Cases	827		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 36.51.

It is observed that the estimate value of Chi-square statistic is not significant because the Asimp. Sig value is > 0,01. As a result, the null hypothesis is not rejected, which means the two grouping variables are not significantly associated. A possible explanation could be that this symptomatology is not connected to patient's sex, but only to the age group that he fits in. A new testing is being imposed, using the ANOVA Test. R Squared value of 0.968,

close to 1, means that both the sex variable and also the age criteria variable have a high explicative power.

Just like for the adult patients, the main factors involved in the etiology of frontal edentulous condition are: dental caries, trauma, anodontia, inclusions and periodontal lesions. The difference consists of different percentages of these factors in the etiology of situations that impose prosthetic treatment for the child and adolescent.

Table 4.

Tests of Between-Subjects Effects					
Dependent Variable: Frec					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8108774.834(a)	3	2702924.945	8421.863	0.000
Intercept	9369108.860	1	9369108.860	29192.581	0.000
SEX	2077477.793	1	2077477.793	6473.074	0.000
Age	6215374.132	2	3107687.066	9683.035	0.000
Error	264134.804	823	320.941		
Total	43524773.000	827			
Corrected Total	8372909.637	826			

a R Squared = 0.968 (Adjusted R Squared = 0.968)

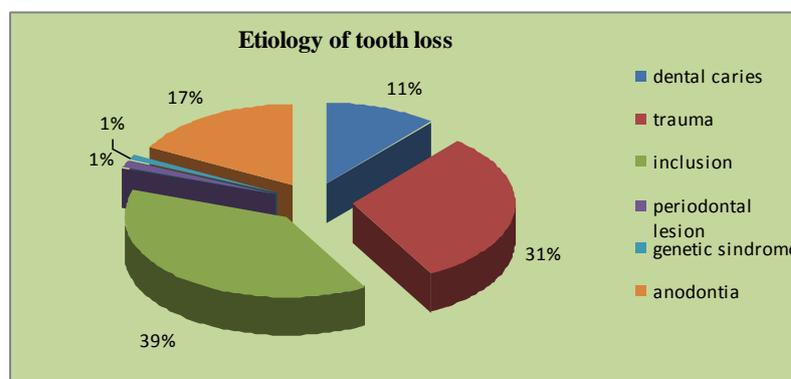


Fig. 3 Distribution of causes for prosthetic treatment need

The causes that stand at the origin of the appearance of prosthetic treatment necessities for the child and adolescent were represented by inclusions with a percentage of 39%, followed by trauma with a percentage of 31%, anodontia with a percentage of 17%, dental caries with a percentage of 11% and the rest were dental dystrophies (fig.3).

Prosthetic treatment for the child and adolescent takes the most diverse forms, due to particularities of the dento-maxillary apparatus at this age. It is pointed out that the end of development at certain stages allows the application of long-term prosthetic treatment methods, and treatment application is done individually. As edentulous conditions treatment methods,

the most frequently used was the traditional bridge with a percentage of 82%, followed by adhesive bridge with a percentage of 9%.

The implant-prosthetic treatment represents the third dentition, that has the objective to morphofunctional restore the SS in order to maintain the health state of the patient, assure his comfort and improve the quality of life.

It was observed that fixed prosthetic restorations have an overwhelming weight of 54% , unlike the other categories of prosthetic restorations; although in the contemporary society and in civilized countries in particular, treatment with implant-supported restorations is the most popular.

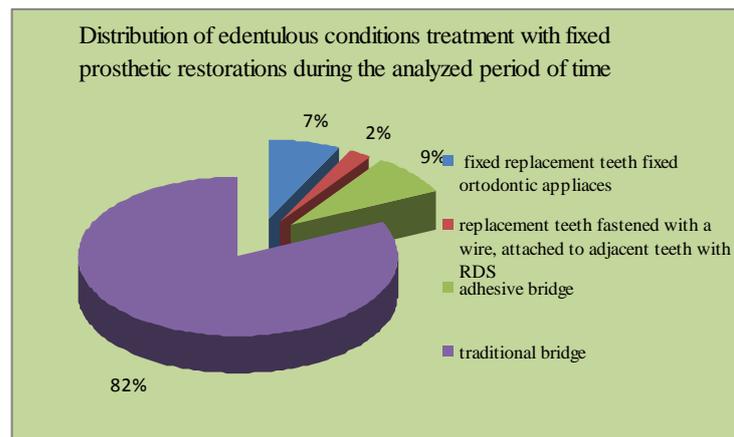


Fig. 4 Distribution of edentulous conditions treatment with fixed prosthetic restorations during the analyzed period of time.

CONCLUSIONS

1. The election therapeutic solution is in full accord to the particularity of the clinical case;
2. The final therapeutic solution represents the sum of clinical and biological indices that resulted from the clinical and para-clinical examinations correlated to the general state and socioeconomic conditions;
3. The prevalence of the edentulous condition etiology was represented by inclusions with a percentage of 39% , followed by trauma with a percentage of 31%, anodontia with a percentage of 17%, dental caries with a percentage of 11% and the rest were dental dystrophies that give definite particularities to the prosthesis-bearing

- area that underlie the choice of the election therapeutic solution;
4. Out of the therapeutic solutions area for the analyzed lot we established the 54% prevalence of fixed restorations;
 5. The growing interest of patients for modern dental treatments was observed;
 6. Edentulous conditions are more frequent on the maxilla than on the mandible, the lower dental

- arch benefiting from the protective role of the saliva against cariogenic factors;
7. The statistic studies that were presented in this article have the purpose of quantifying the relationship between the edentulous condition type and the chosen therapeutic solution, a big part of this scope falling upon fixed, mobile and mobilizable prosthesis.

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