

COMPARISON OF ORAL IMPACTS ON DAILY PERFORMANCE OF CLEFT LIP AND PALATE PATIENTS WITH OR WITHOUT SECONDARY BONE GRAFTING

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ABSTRACT

Introduction People who have a cleft lip and/or palate (CLP) experience cosmetic, speech, hearing, and dental problems. **Aim** To appreciate the oral impact on daily performance of cleft lip and palate patients with or without secondary bone grafting. **Material and method** The study was performed on 68 individuals with cleft lip and palate. The subjects were divided into two main groups: 34 patients with secondary alveolar bone grafting and 34 without. **Results** Questionnaire analysis by OIDP showed significantly higher impacts on daily performance in cleft lip and palate patients without secondary bone grafting. **Conclusions** The study underlines the importance of good oral health in cleft patients and their psychosocial integration.

Key words: *OIDP, cleft, secondary bone grafting*

INTRODUCTION

The overall figure for Orofacial cleft prevalence world wide is approximately 1 in 700 live births with considerable ethnic and geographical variation. In Europe the mean is 1.36/1000 births.¹ In Republic of Moldova the incidence of face congenital malformations is 1,06 : 1000 births. Lip and palate cleft prevalence is 36.89% from all maxillo-facial clefts, the mean is 0,37/1000, the correlation between unilateral cleft and bilateral is 1,89 : 1.² Review of the literature yields conflict report on oral and dental health of patients with cleft lip and palate. Several studies have reported that patients with cleft lip and palate with secondary bone grafting had higher OIDP levels then the patients without secondary bone grafting.^{3,4} People who have a cleft lip and/or palate (CLP) experience cosmetic, speech, hearing, and dental problems. A multidisciplinary

approach to their management has become more prevalent in recent years.⁵

AIM OF THE STUDY

Was to appreciate the oral impact on daily performance of cleft lip and palate patients with or without secondary bone grafting, seen between 2011-2014 in the Clinic "Emilian Cotaga", Department of Paediatric Oro-Maxillo-Facial Surgery, Paedodontics and Orthodontics, USMF "N. Testemițanu", Chisinau, Republic of Moldova.

MATERIALS AND METHOD

A case control study was approved by the ethics committee for research from the State University of Medicine and Pharmacy. The study was performed on 68 individuals with cleft lip and palate. The subjects were divided into two main groups: 34 patients with secondary alveolar bone grafting (for the implant based prosthesis recovery) and 34 without (traditional method, only soft tissue surgery, only removable o bridge

prosthesis) they were distributed by age, gender and educational level. All the participants were interviewed using the Oral Impacts on Daily Performance (OIDP) questionnaire about frequency and severity during the activities: Eating, Speaking,

patients were recruited from the Department of Pediatric Maxillo-Facial Surgery. All Cleaning, Sleeping, Smiling, Emotional, Work or Social Role, Contact People in the last 6months. A statistical analysis was carried out with One-way ANOVA.

Frequency by Gender			
	Nr	%	SE
Masculine	29	42.6	6.0
Feminine	39	57.4	6.0
Total	68	100.0	

Frequency by Education Level			
	Nr	%	SE
Gymnasium	25	36.8	5.8
Lyceum/College	33	48.5	6.1
University	10	14.7	4.3
Total	68	100.0	

Table 1,2 Sample distribution by gender and educational level



Fig 1,2,3,4: Cleft Lip and Palate patients after secondary bone grafting and without

		Age: 15-25 y	OIDP %
Cleft lip and palate patients with secondary bone grafting	Nr	34	34
	Minimum	15	0.0
	Maximum	25	17.5
	Mean	19.2	5.5
	SD	2.77	5.29
	SE	0.48	0.91
Cleft lip and palate patients without secondary bone grafting	Nr	34	34
	Minimum	15	4.0
	Maximum	25	73.0
	Mean	19.3	40.1
	SD	2.67	18.07
	SE	0.46	3.10
Total	Nr	68	68
	Minimum	15	0.0
	Maximum	25	73.0
	Mean	19.3	22.8
	SD	2.70	21.88
	SE	0.33	2.65

Table 3 Means, Standard Deviation, Standard Error, Confidence interval of OIDP according to treatment method

Results of Anova test for the influence of Cleft Without Grafting, Cleft with Grafting status, age and OIDP						
		Sum of squares	Degree of freedom	Mean Square	F	P value
Age: 15-25 y * Group: Cleft Without Grafting, Cleft with Grafting	between the groups	.235	1	.235	.032	.859
OIDP % * Group: Cleft Without Grafting, Cleft with Grafting	between the groups	20389.798	1	20389.798	115.087	.000

Table 4 OIDP levels in accordance to the cleft with and without secondary bone grafting group

RESULTS

The patient ages were from was 15-25 years old, mean age \pm SD: 19.3 \pm 2.7 years. 34 patients with cleft lip and palate without and the control group was cleft patients with secondary bone grafting. Questionnaire analysis by OIDP showed significantly higher impacts on daily performance in cleft

lip and palate patients without secondary bone grafting; cleft without grafting: 40.1 \pm 18.07; cleft with bone grafting: 5.5 \pm 5.29. The difference between two groups is statistically significant. F=115.09, p<0.001.

CONCLUSIONS

The presence of the alveolar bone defect negatively affected the oral health related quality of life compared to a control group and has a significant negative impact on OIDP. This is greatest for the psychological

discomfort domain. Younger people and those with a university education report higher levels of impact. The study underlines the importance of good oral health in cleft patients and their psychosocial integration.

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