

**PP10: PREVALENCE OF TOOTH AGENESIS IN NON-SYNDROMIC OROFACIAL CLEFTS: ASSOCIATIONS WITH CLEFT TYPE AND SEX**

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**AIM:** The aim of this study was to investigate the prevalence of tooth agenesis in association with sex and cleft type in a spectrum of non-syndromic orofacial cleft patients.

**MATERIALS AND METHOD:** Intraoral records and radiographs of 183 orofacial cleft patients (115 males and 68 females) were examined for tooth agenesis. All records were obtained from the Graduate Clinic of the Departments of Orthodontics and Pediatric Dentistry of the School of Dentistry of the National and Kapodistrian University in Athens, Greece. The statistical analysis included Fisher's exact tests as well as logistic regression to assess any mutual effects of sex and cleft type on tooth agenesis.

TEETH	CLP (N=45)	CLPL (N=72)	CLPR (N=44)	CP (N=16)	Total (N=183)	p value
11	2 (4.4%)	0 (0.0%)	2 (4.5%)	0 (0.0%)	4 (2.2%)	0.149
12	15 (33.3%)	10 (13.9%)	17 (38.6%)	2 (12.5%)	44 (24.0%)	0.006
13	1 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0.593
14	2 (4.4%)	1 (1.4%)	0 (0.0%)	0 (0.0%)	3 (1.6%)	0.593
15	4 (8.9%)	5 (6.9%)	2 (4.5%)	1 (6.2%)	12 (6.6%)	0.872
16	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
17	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.2%)	1 (0.5%)	0.090
21	3 (6.7%)	1 (1.4%)	0 (0.0%)	0 (0.0%)	4 (2.2%)	0.223
22	17 (37.8%)	30 (41.7%)	4 (9.1%)	3 (18.8%)	54 (29.5%)	< 0.001
23	0 (0.0%)	1 (1.4%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	1.000
24	3 (6.7%)	2 (2.8%)	0 (0.0%)	0 (0.0%)	5 (2.7%)	0.236
25	4 (8.9%)	2 (2.8%)	1 (2.3%)	1 (6.2%)	8 (4.4%)	0.353
26	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
27	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.2%)	1 (0.5%)	0.090
31	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
32	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.2%)	1 (0.5%)	0.090
33	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
34	0 (0.0%)	1 (1.4%)	1 (2.3%)	0 (0.0%)	2 (1.1%)	0.792
35	3 (6.7%)	2 (2.8%)	1 (2.3%)	4 (25.0%)	10 (5.5%)	0.014
37	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.2%)	1 (0.5%)	0.090
41	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.2%)	1 (0.5%)	0.090
42	0 (0.0%)	0 (0.0%)	1 (2.3%)	1 (6.2%)	2 (1.1%)	0.053
43	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
44	0 (0.0%)	1 (1.4%)	1 (2.3%)	0 (0.0%)	2 (1.1%)	0.792
45	4 (8.9%)	2 (2.8%)	1 (2.3%)	2 (12.5%)	9 (4.9%)	0.166
47	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	

Table 1. Missing teeth by cleft type in a total of 183 (CLL patients were not shown as no agenesis occurred) cleft-patients. CLP: cleft lip and palate, CLPL: cleft lip and palate left, CLPR: cleft lip and palate right, CP: cleft palate.

**RESULTS:** The most common cleft type was cleft lip and palate left (CLPL) (n=72; 39.3%) and it was more frequently observed in men (44.3%) compared to women (30.9%) (Fig. 1). However, the association between cleft type and sex did not meet the significance level (p=0.114). Overall, tooth agenesis was found in 96 of 183 cases (52.5%), but still, the difference was not statistically significant, thus the relation between cleft type and tooth agenesis is considered weak (p=0.065). Additionally, sex was not associated with the prevalence of tooth agenesis (p=0.343) (Fig. 2), while the lateral incisor of the upper left quadrant was the most frequently missing tooth (29.5%), strongly depending on cleft type (p<0.001).

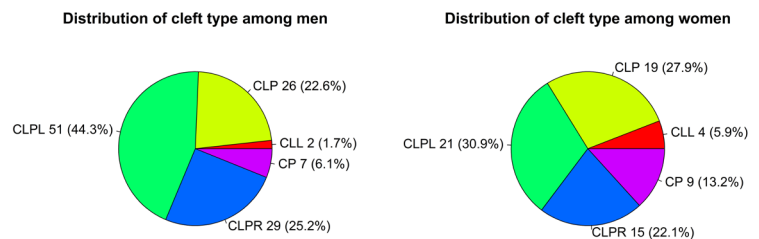


Figure 1: Distribution of cleft type by sex

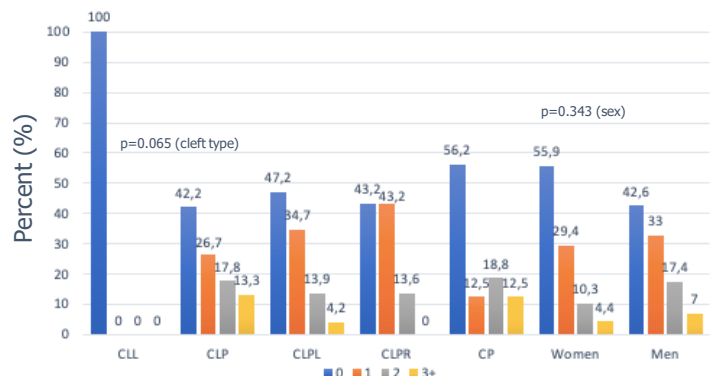


Figure 2: Prevalence of tooth agenesis by gender and cleft type

**CONCLUSIONS:** CLPL was the most prevalent cleft type, while the most common missing tooth was the upper left lateral incisor. However, there is no significant correlation between tooth agenesis, different types of orofacial clefts and sex.