Angular Cheilitis prevalence in Cleft lip/palate patients from Hospital for Rehabilitation of Craniofacial Anomalies, USP, Bauru

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ABSTRACT

The present study verified the angular cheilitis prevalence in the cleft lip and palate patients at the Craniofacial Anomalies Rehabilitation Hospital – University of São Paulo – Bauru – Brazil, of both genders and divided in two groups: group 1 – 100 prosthesis - user adults and group 2 – 119 children aged 7 to 12 years. An intraoral exam was realized according to a standardized examination chart in an ordered and systematic way. The present investigation was based exclusively upon the alterations of the clinical characteristics. In the adults group, angular cheilitis occurred in 12 subjects, 4 bilaterally and 8 unilaterally. In the children's group, angular cheilitis occurred in 5 subjects, 3 bilaterally and 2 unilaterally located, and only one in a female subject. It could be concluded that angular cheilitis prevalence in cleft lip and palate patients was 12% in adults and 4.2% in children aged 7 to 12 years.

KEY WORDS: cheilitis; prosthesis; children

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INTRODUCTION

Angular cheilitis is a clinical description of a lesion that affects the labial comissure, characterized by ulcers, usually bilateral with a hyperemic and hemorrhagic bottom with a erythematous halo showing crust and scaling (CASTOR et at., 1995). This condition can be named *angulus infecciosus* or angular cheilosis (CARVALHO et al., 1985).

The diagnosis of the angular cheilitis is clinical and the prognosis is favorable. For that, the etiologic factors should be identified and corrected (SHAFER et al., 1979; CASTRO et al., 1995).

Nevalainen et al. (1997) studied in 338 individuals, 76, 81 and 86 year old the prevalence of lesions in the buccal mucosa. Most alterations non related to use of removable prosthesis were tongue alterations (7%), angular cheilitis (6%) and tongue varix (4%). They concluded that angular cheilitis is more frequent in women than in men, probably due to differences in the general health condition.

In a study by Carvalho et al. (1985), were identified the infectious agents that may cause angular cheilitis: *Stafilococcus aureus, Candida albicans, Streptococcus beta-hemolíticos* and *Herpes simplex,* respectively from the most to the less common.

Among 300 elderly in Bauru, SP, Carvalho (2000) found that 232 used dental prosthesis. Out of them, 113 (48.7%) had buccal alterations due to the use of the prosthesis. These were more common in women (56.2%) than in men (29.2%), with statistical significance. Among the alteration associated to use of prosthesis 77 cases (68.1%) had chronic erythematous candidiasis, 17 (15%) cases of angular cheilitis, 14 cases (12.3%) of inflammatory fibrous hyperplasia and 5 cases of ulcer in the buccal mucosa caused by prosthesis.

Deficiency of vitamins from the B_{12} complex is considered as an etiological factor for angular cheilitis (CASTRO et al., 1995; GUEDES-PINTO, 1995; NAIR et al., 1996). It may be related to hypochromic microlytic or macrolytic anemia and thus dentists should refer cases to medical evaluation in cases of high frequency of angular cheilitis (NEIDLE; YAGIELA, 1991; CAMARGO; RODRIGUES, 1999).

Cases of HIV can show angular cheilitis as demonstrated in a study of Cavassani and Sobrinho (2003) that observed a prevalence of 19% of cheilitis in a survey of 431 medical records of patients with HIV.

The objective of the present study was to evaluate the prevalence of cheilitis in patients with lip and cleft palate at the Hospital for Rehabilitation of Cranio-facial anomalies in the University of São Paulo (HRAC-USP), in the age rage of 7 to 12 years and those above 18 years old with dental prosthesis.

MATERIAL AND METHODS

In order to evaluate the prevalence of angular cheilitis in cases with cleft and lip palate a clinical examination was done in the buccal cavity of 219 individuals in a systematic and ordered way according to the recommendations from the World Health Organization (1999). The diagnosis of the affection was based only in the clinical characteristic. No confirming laboratorial exams were done.

Volunteer patients constituted the sample and were informed on the nature of the routine of the exam and signed an informed consent.

In the present study patients were divided in two groups. One group with 100 adults above 18 years old, females and males, using dental prosthesis in one or two maxillary arches, provided the prosthesis was partial denture (fixed or removable) or complete denture prothesis. The other group had 119 children of both sexes with age ranging from 7 to 12 years.

The study was conducted in collaboration with the sector of dental prosthesis and pedodontics of the HRAC-USP, where the patients were evaluated.

Data was submitted to statistical analysis and compared to the available literature.

RESULTS

The present study revealed a prevalence of 12% of angular cheilitis in the adult group (TABLES 1 and 2), whereas the prevalence in the children's group was 4.20% (TABLE 3).

TABLE 1 – Occurrence of angular cheilitis according to sex and laterality in 100 adults with cleft lip and palate.

Cheilits	Male (N=53)		Female (N=47)		TOTAL (N=100)	
	n	%	n	%	n	%
unilateral	3	5.66	5	10.63	8	8
bilateral	3	5.66	1	2.12	4	4
TOTAL	6	11.32	6	12.76	12	12

TABLE 2 – Occurrence of angular cheilitis according to type of prosthesis in each dental arch in 100 adults with cleft lip and palate.

Prosthesis	Cheilits unilateral		Cheilits bilateral		TOTAL	
	n	%	n	%	n	%
Total X Partial removable	1	12.5	1	25	2	16.6
Partial removable X Partial removable	0	0	1	25	1	8.3
Partial removable X Natural teeth	2	25	1	25	3	25
Total X Total	4	5	1	25	5	41.6
Fixed partial X Natural teeth	1	12.5	0	0	1	8.3
TOTAL	8	100	4	100	12	100

TABLE 3 – Occurrence of angular cheilitis according to sex and the laterality in 119 children with cleft lip and palate.

Angular cheilits	Male (N=73)		Female (N=46)		TOTAL (N=119)	
	n	%	n	%	n	%
unilateral	2	2.73	0	0	2	1.68
bilateral	2	2.73	1	2.17	3	2.52
TOTAL	4	5.47	1	2.17	5	4.20

In patients of both groups it was not observed other lesion in the buccal mucosa than the angular cheilitis. However, actinic cheilitis was observed in 2 cases of the adult group, which did not have angular cheilitis. In other 2 cases of the adult group and 2 from the children's group that had angular cheilitis it was noted gingival inflammation due to the presence of dental plaque clinically visible.

DISCUSSION

In the evaluation of 100 adults with clef lip and palate using dental prosthesis the prevalence of angular cheilitis was 12%. The

condition affected more women (12.76%) than men (11.32%). These data are in accordance with findings in the literature (LANGLAIS; MILLER, 1992; NEVALAINEN et al., 1997; CARVALHO, 2000).

Among the 12 cases of angular cheilitis in the adult group 33.33% were bilateral and 66.66% unilateral. Langlais and Miller (192) and Castro et al. (1995) refer that bilateral lesions in cheilitis are more frequent than the unilateral ones. The difference found in the present study may be due to the low age of the adults evaluated, which ranged from 18 to 50 years with a majority of cases under 40 years. Lockart et al. (1999) suggested that aging could lead (due to damage to the yeast suppression or equilibrium mechanism) to an increase of the buccal colonization by *Candida*. In this sense, adults with dental prosthesis in elder ages would be prone to develop angular cheilitis associated to *Candida albicans* than adults with dental prosthesis but with lower age.

In the adult group cheilitis was more prevalent among patients using total dental bimaxillary prosthesis followed by those with natural teeth in one arch and wearing a partial removable prothesis in the other. The vertical dimension of the occlusion can be a factor related to the occurrence of cheilitis (DOMITTI ,1984) in patients of this study since they come to the sector of dental prosthesis of the HRAC to replace old prosthesis with diminished vertical occlusion dimension (VOD). The study of Garcia Morales (2002) reported that old total prosthesis showed loss of VOD.

Clinical lesions compatible with angular cheilitis were observed in 4.20 out of 119 cases of the children's group with clef lip and palate. The alteration was more common in boys (5.47%) a in girls (2.17%), which agrees with Carvalho et al. (1985) that reported less occurrence of angular cheilitis among females than in males. Bilateral lesions (3) were more frequent that unilateral ones (2).

Two of the five children with angular cheilitis showed gingival inflammation due to dental plaque. Carvalho et al. (1985) suggested the possible influence of the condition of buccal hygiene in the development of angular cheilitis.

CONCLUSION

The prevalence of angular cheilitis among individuals with clef lip and palate was 12% in the adult group wearing dental prosthesis and of 4.20% in the children's group.

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