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Pattern and Expression of Oral Mucosal Lesions in a Pediatric Population

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ABSTRACT

Background: The study was conducted to assess the pattern and expression of oral mucosal lesions in a pediatric population.

Material and methods: This study comprised of 100 subjects of less than 15 years of age who underwent oral clinical examination for oral lesions. The procedure of this study was explained to all the subjects and all the participants were asked to give consent. All the participants were included in the study. The subjects underwent oral clinical examination and the prevalence of oral lesions was assessed. The findings had been tabulated. Statistical analysis was performed using SPSS software.

Results: In this study, the most common lesion was eruption cyst accounting for 29% cases. Other lesions were ulceration (23%), dentoalveolar abscess (21%), gingivitis (16%) and geographic tongue (11%). There were 49 males and 51 females.

Conclusion: The results of this study conclude that the most common lesion was eruption cyst. Other common lesions were ulceration, dentoalveolar abscess, gingivitis and geographic tongue

Keywords: *Epidemiology, Oral mucosal lesions, Prevalence, Pattern.*

1. INTRODUCTION

Oral and dental health issues encompass not only dental caries and periodontal diseases but also oral mucosal lesions (OML), which manifest as changes in the soft tissues of the oral cavity. Identifying these lesions necessitates comprehensive patient history and intraoral examination. Oral assessments reveal differences in etiopathogenesis, clinical manifestations, and both diagnostic and prognostic attributes; additionally, the characteristics of these lesions can vary considerably across different geographic regions.[1-3]

Oral mucosal lesions may be benign or have the potential to be malignant, ranging from requiring no treatment to

necessitating extensive invasive procedures. To accurately evaluate soft tissues in pediatric patients, the examiner must be well-versed in the normal dimensions, shapes, colors, and textures of the relevant structures.[4] The presentation of oral mucosal lesions in children can differ from that in adults regarding color, size, etiology, clinical features, prognosis, and treatment strategies.[5] Therefore, it is crucial to investigate the prevalence of oral lesions in pediatric populations to ensure appropriate management.

This study was conducted to assess the pattern and expression of oral mucosal lesions in a pediatric population.

2. MATERIAL AND METHODS

This study comprised of 100 subjectsof less than 15 years of age who underwent oral clinical examination for oral lesions. The procedure of this study was explained to all the subjects and all the participants were asked to give consent. All the participants were included in the study. The subjects underwent oral clinical examination and the prevalence of oral lesions was assessed. The findings had been tabulated. Statistical analysis was performed using SPSS software.

3. RESULTS

Table 1: Prevalence of lesions

Types of lesions	Number of cases	Percentage
Ulceration	23	23
Dentoalveolar abscess	21	21
Gingivitis	16	16
Geographic tongue	11	11
Eruption cyst	29	29

In this study, the most common lesion was eruption cyst accounting for 29% cases. Other lesions were ulceration (23%), dentoalveolar abscess (21%), gingivitis (16%) and geographic tongue (11%).In this study, the most common lesion was eruption cyst accounting for 29% cases. Other lesions were ulceration (23%), dentoalveolar abscess (21%), gingivitis (16%) and geographic tongue (11%).There were 49 males and 51 females. Higher prevalence was seen among children of 10 to 15 years of age.

Table 2: Correlation of occurrence of oral lesions with demographic

Demographic		Oral lesions present	Oral lesions absent	p-value
Age group	Upto 10 years	8	32	0.001 (Significant)
	10 to 15 years	21	39	
Gender	Boy	25	24	0.225
	Girls	26	25	

4. DISCUSSION

The management of childhood caries and the ramifications of dental injuries are primary concerns for dental professionals, often eclipsing other oral cavity disorders encountered in pediatric patients, such as oral mucosa lesions (OMLs).[6, 7]

Contrary to the belief of many clinicians, the occurrence of OMLs in children is relatively common, with incidence rates reported between 4.1% and 69.5%. This variation in findings can be attributed to factors such as geographical location, the developmental stage of the children studied, and the differing methodological approaches employed in various research efforts.[8,9]

Despite this, oral mucosal disorders remain largely overlooked and under diagnosed by not only dentists but also pediatricians, dermatologists, and other healthcare providers.[10]

This study was conducted to assess the pattern and expression of oral mucosal lesions in a pediatric population.

In this study, the most common lesion was eruption cyst accounting for 29% cases. Other lesions were ulceration (23%), dentoalveolar abscess (21%), gingivitis (16%) and geographic tongue (11%). There were 49 males and 51 females.

Ramiah V et al[11] identified the pattern and expression of oral mucosal lesions in a pediatric population. 100 patients between 3 and 16 years of age from the department of pediatrics in a multispeciality hospital were examined. The majority of them had oral lesions (68%), with traumatic ulceration being the most common.

Owczarek-Drabińska JE et al.[12] The aim of the study was to evaluate the prevalence of OMLs in children, patients of the oral pathology clinic in south-western parts of Poland, and to investigate the potential correlation between the occurrence of particular types of OMLs and the gender and age. A retrospective study was performed using a total of 2474 clinical charts from 2015 to 2019. Data collected included age, gender, and OMLs' type. The prevalence of OMLs in minors was 5.21%. Aphthae was the most frequent diagnosis. Boys were more commonly affected and traumatic erosion and ulcers were significantly more often detected in males. The mean age of children was 8 y/o, preschoolers were significantly more often diagnosed with geographic tongue, while *Morsicatio buccarum* was significantly more common in school children and adolescents. Clinicians should be familiar with OMLs prevalence and with its specific frequency in connection to age and gender of children. Furthermore, they should be aware of the diversity of OMLs found in the oral cavity of children and that their frequency in the pediatric population is different from that in adults.

5. CONCLUSION

The results of this study conclude that the most common lesion was eruption cyst. Other common lesions were ulceration, dentoalveolar abscess, gingivitis and geographic tongue

REFERENCES

[1] Unur M, Bektas Kayhan K, Altop MS, Boy Metin Z, Keskin Y. The prevalence of oral mucosal lesions in children:a single center study. J Istanb Univ Fac Dent. 2015; 49(3):29–38.

[2] Gonsalves WC, Chi AC, Neville BW. Common oral lesions: Part I. Superficial mucosal lesions. Am Fam Physician. 2007 Feb; 75(4):501–507.

[3] Yáñez M, Escobar E, Oviedo C, Stillfried A, Pennacchiotti G. Prevalence of oral mucosal lesions in children. Int J Odontostomat. 2016; 10(3):463–468.

[4] Rioboo-Crespo Mdel R, Planells-del Pozo P, Rioboo-García R. Epidemiology of the most common oral mucosal diseases in children. Med Oral Patol Oral Cir Bucal. 2005; 10(5):376–387.

[5] El Toum S, Cassia A, Bouchi N, Kassab I. Prevalence and Distribution of Oral Mucosal Lesions by Sex and Age Categories: A Retrospective Study of Patients Attending Lebanese School of Dentistry. Int J Dent. 2018 May 17;2018:4030134

[6] Hong CHL, Dean DR, Hull K, Hu SJ, Sim YF, Nadeau C, Gonçalves S, Lodi G, Hodgson TA. World Workshop on Oral Medicine VII: Relative frequency of oral mucosal lesions in children, a scoping review. Oral Dis. 2019 Jun;25 Suppl 1:193-203

[7] Shulman JD. Prevalence of oral mucosal lesions in children and youths in the USA. Int J Paediatr Dent. 2005 Mar; 15(2):89-97.

[8] Yáñez M., Escobar E., Oviedo C., Stillfried A., Pennacchiotti G. Prevalence of Oral Mucosal Lesions in Children Prevalencia de Lesiones de la Mucosa Oral en Niños. Int. J. Odontostomat. 2016; 10:463–468.

[9] Colaci R., Sfasciott G. Most Common Oral Mucosal Lesions in Children: Prevalence and Differential Diagnosis. WedmedCentral DENTISTRY, 4. 2013. [(accessed on 12 May 2022)].

[10] Yilmaz AE, Gorpelioglu C, Sarifakioglu E, Dogan DG, Bilici M, Celik N. Prevalence of oral mucosal lesions from birth to two years. Niger J Clin Pract. 2011 Jul-Sep; 14(3):349-53.

[11] Ramiah V, Manivannan D, Shunmugavelu K, Kumar B, Dhinakaran EC. Oral mucosal lesions in pediatric patients. GMS Hyg Infect Control. 2025 Mar 6; 20:Doc07.

[12] Owczarek-Drabińska JE, Nowak P, Zimoląg-Dydak M, Radwan-Oczko M. The Prevalence of Oral Mucosa Lesions in Pediatric Patients. Int J Environ Res Public Health. 2022 Sep 8;19(18):11277

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