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TYPE AND PREVALENCE OF ORAL LESIONS SEEN IN A TEACHING HOSPITAL.

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ABSTRACT:
The oral cavity can be affected by a wide variety of lesions and conditions, some of which are harmless, while others may have serious complications. The purpose of this study was to determine the types and prevalence of oral lesions and conditions seen in patients attending the Oral Medicine Clinic, University of Benin Teaching Hospital, Benin City. Intraoral soft tissue examination was performed on patients seen in the Oral Medicine Clinic, UBTH, between January to December 2014. The mean age of the subjects was 42.3 $\pm$ 2.03years. Out of a total of 86 oral mucosal lesions and conditions, twenty (23.2%) lesions were ulcerative, 17.4% were halitosis, 12.8% were psychogenic orofacial pain and neurogenic disorders respectively. About 5.8% were in the miscellaneous group. Overall, recurrent aphthous ulcers (12.8%) were the most frequently detected oral lesion. This study highlights the prevalence of oral lesions and the importance of frequent and regular inspection of the oral cavity among all health workers in order to facilitate early detection of oral lesions and prompt referrals.

INTRODUCTION:

The oral cavity is lined by oral mucosa which serves as a protective barrier against trauma, pathogens, and carcinogenic agents. It can be affected by a wide variety of lesions and conditions, some of which are harmless, while others may have serious complications. [1] Identification and treatment of these pathologies are an important part of total oral health care. Hence, oral soft tissue examination is crucial, and it should be done in a systematic manner to include all parts of the oral cavity. [2]

KEYWORDS: *Types, prevalence, oral lesions.*

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Oral medicine is the specialty of dentistry that is concerned with the oral health care of medically compromised patients and with the diagnosis and nonsurgical management of oral diseases which may be localized to the mouth or which may be an oral manifestations of systemic disease. [3]

Epidemiological studies of oral mucosal lesions are rare globally in comparison with studies on caries and periodontal diseases. [4] As the pattern of oral diseases vary across countries, epidemiological studies are needed to address the most commonly occurring oral diseases in order to plan for oral health care service. [4, 5, 6] So far there have been no studies focusing on the prevalence of a wide spectrum of oral mucosal lesions in our environment.

The purpose of this study was to determine the types and prevalence of orofacial lesions and conditions seen in

patients attending the Oral Medicine Clinic, University of Benin Teaching Hospital, Benin City. This information can help to emphasize the importance of routine examination of oral mucosa and help create awareness among all health workers of the nature of oral lesions managed in Oral Medicine Clinic in order to facilitate early detection and prompt referrals. It also serves as a baseline for future studies with the goal of finding ways to improve oral health in this country.

MATERIALS AND METHODS:
This was a prospective study in which intraoral soft tissue examination was performed on patients seen in Oral Medicine Clinic, UBTH for a period of one year (between January to December 2014). The lesions were divided into seven major groups: white, red, pigmented, ulcerative, temporomandibular joint disorders, neurogenic or exophytic based on their prominent clinical appearance. Lesions that did not fit in any of the above groups were labeled miscellaneous.

Oral examination was performed with the subject lying on a dental chair. A head light, mouth mirrors, spatulas, and sterile gauze were used. Occasionally, in those cases requiring further examination; microscopy, heamatological investigations, and biopsy for histological evaluation were performed to establish precise accurate diagnosis. Final diagnoses of all lesions were confirmed by a consultant in Oral Medicine. Data were analyzed using the Statistical Package for the Social Sciences for Windows 17.0 (SPSS Inc, Chicago, IL, USA). A P- value of ≤ 0.05 was considered statistically significant.

RESULTS:
Out of 2559 patients seen in Oral diagnosis and radiology Clinic during the study period, 86 (3.4%) cases of oral mucosal lesions were referred to Oral Medicine Clinic.

Of all the cases seen in Oral Medicine Clinic during the study period, males constituted 57.0% (n=49) and females 43.0% (n=37). The age range of the patients was between 3 to 87 years. The mean age of the sample group was 42.3 ± 2.03years. Of the total sample, the most commonly affected age group was between 21 to 30 years (24.4%), followed by 41 to 50 years (18.6%), and 31 to 40 years (16.3%).

A total of 86 oral mucosal lesions and conditions was seen, twenty (23.2%) lesions were ulcerative, 17.4% were halitosis, 12.8% were psychogenic orofacial pain and neurogenic disorders respectively. About 5.8% were in the miscellaneous group. Overall, recurrent aphthous ulcers (12.8%) were the most frequently detected lesion, followed by trigeminal neuralgia (9.3%), temporomandibular joint pain dysfunction syndrome (7.0%) and erythema multiforme (5.8%).

TABLE 1: AGE AND GENDER OF SUBJECTS.

Age groups (yrs.)	**Males (%)**	**Females (%)**	**Total (%)**	**P-value**
0-10	0 (0.0)	1 (2.7)	1 (1.2)	
11-20	5 (10.2)	2 (5.4)	7 (8.1)	
21-30	13 (26.5)	8 (21.6)	21 (24.4)	
31-40	8 (16.3)	6 (16.2)	14 (16.3)	
41-50	10 (20.4)	6 (16.2)	16 (18.6)	
51-60	5 (10.2)	5 (13.5)	10 (11.6)	
61-70	5(10.2)	5 (13.5)	10 (11.6)	
≥ 71	3 (6.1)	4 (10.8)	7 (8.1)	
TOTAL	49 (57.0)	37 (43.0)	86 (100.0)	0.003

TABLE 2: FREQUENCY OF ORAL LESIONS AND THEIR DISTRIBUTION ACCORDING TO GENDER

Diagnosis	Males (n= 49)	Females (n=37)	Total (%)
WHITE LESIONS:			
Heck's disease	0	1	1 (1.2)
candidiasis	0	1	1 (1.2)
Subtotal			2 (2.3)
RED LESIONS:			
Allergic contact stomatitis	0	1	1(1.2)
Atrophic glossitis	0	1	1(1.2)
Erythroplakia	1	0	1(1.2)
Petechia	1	0	1(1.2)
Subtotal			4 (4.7)
PIGMENTED LESIONS:			
Melanosis	1	0	1 (1.2)
Generalized pigmentation	0	1	1 (1.2)
Subtotal			2 (2.3)
ULCERATIVE / VESICULOBULLOUS LESIONS			
Recurrent aphthous ulcer	5	6	11 (12.8)
Erythema multiforme	4	1	5 (5.8)
Infective ulcer	1	1	2 (2.3)
Traumatic ulcer	1	0	1 (1.2)
Pemphigus vulgaris	1	0	1 (1.2)
Subtotal			20 (23.2)
PSYCHOGENIC OROFACIAL PAIN:			
TMJ Pain Dysfunction Syndrome	4	2	6 (7.0)
Atypical facial pain	0	4	4 (4.7)
Burning mouth syndrome	0	1	1 (1.2)
Subtotal			11 (12.8)
NEUROGENIC DISORDERS:			
Facial nerve palsy	3	0	3 (3.5)
Trigeminal neuralgia	5	3	8 (9.3)
Subtotal			11 (12.8)
TEMPOROMANDIBULAR JOINT DISORDERS:			
Osteoarthritis	2	0	2 (2.3)
Traumatic arthritis	4	0	4 (4.7)
Subtotal			6 (7.0)
EXOPHYTIC LESIONS			
Lymphangioma	0	1	1 (1.2)
Localized reactive gingival lesion	0	2	2 (2.3)
Cement-osseous dysplasia	0	2	2 (2.3)
Traumatic fibroma	1	0	1 (1.2)
Tongue papilloma	0	1	1 (1.2)
Neoplastic lesion	2	1	3 (3.5)
Subtotal			10 (11.6)
HALITOSIS	10	5	15(17.4)
*MISCELLANEOUS	2	3	5 (5.8)
TOTAL	49	37	86 (100.0)

* Fissured tongue (1), oral mandibular dystonia (1), Dentine hypersensitivity (1), Parafunctional habit (2)

DISCUSSION:

Oral soft tissue lesions present a significant health problem with a considerable morbidity. Despite its importance, there are few reports on its prevalence, when compared to dental caries and periodontal diseases. [7]

In the present study, oral lesions were more prevalent in males than females with most of the lesions occurring in the third to fifth decades of life. This is in accordance with some studies, [2, 8] but in contrast to another study that reported oral lesions were more prevalent in females than males. [7] These discrepancy might have been as a result of other demographic and/or clinical factors.

Classifying oral soft tissue lesions according to their clinical appearance is an important step in the diagnostic sequence. The dental practitioner should have information about the type and severity of lesions that tend to occur in a particular population to aid in the differential diagnosis. [2]

In this study carried out in a subsection of the Nigerian population, oral ulcerative lesions were the most common oral lesions with a prevalence of 23.4% and most commonly observed in males. Recurrent aphthous ulcer constituted most of the ulcerative lesions observed. This may be due to the high level of stress suffered by people especially in a developing nation like Nigeria. This is in agreement with a study [9] that reported stress was the most common factor associated with recurrent aphthous stomatitis.

The second most common oral condition is halitosis. It was predominantly higher in males with a prevalence of 17.4%. Halitosis, is an unpleasant or offensive odour emanating from the oral cavity. Bad breath may have an oral or extra oral etiology, but it usually originates in the patient's mouth. [10-11] A prevalence of 6.0% had been reported in a Nigerian study [12]. According to the Brazilian Association of Halitosis, [13] the incidence of bad breath in Brazilian population may reach 40%. Also, according to the American Dental Association, [14] about 50% of the adult population had at least an occasional complaint of halitosis. This disparity is justified by the subjectivity of the diagnostic criteria, assessment methods and sampling techniques.[15]

Trigeminal neuralgia, the third most common condition with a prevalence of 9.3% occurred more in male patients. It's characterized by lancinating, unilateral, paroxysmal pain occurring in the distribution of the fifth cranial (trigeminal) nerve. [10] It is often triggered by movements of the mouth or eating and usually associated with trigger zones. [16-17]

The prevalence of red lesions (4.7%) is comparable to the 4.4% reported in a study in Kuwait [2]. The 2.3% of white oral mucosal lesions reported in this study is quite low compared to the 19.1% [5] and 44.7% [2] reported respectively from previous studies [2, 5]. Even though it is rare, the dental practitioner should remain alert for any suspicious lesion. Non-traumatic white patches, white patches with red areas, chronic non-healing ulcers, indurated lesions are some of the features which would probably make a lesion suspicious of malignancy[2] and should be investigated further for any feature of dysplasia.

CONCLUSION.

The findings of this study possibly provide important and missing information about the types and

prevalence of oral mucosal lesions and conditions among Nigerian dental patients and can serve as baseline data for future studies on the prevalence of different oral lesions in the general population. Accordingly, frequent and regular inspection of the oral cavity is necessary among all health workers in order to facilitate early detection of these lesions and prompt referrals.

REFERENCES:

1. Langlais RP, Miller CS, Nield-Gehrig JS. Color Atlas of Common Oral Diseases. 4th ed. Lippincott Williams & Wilkins; Illinois: 2009.

2. Ali M, Joseph B, Sundaram D. Prevalence of oral mucosal lesions in patients of the Kuwait University Dental Center. Saudi Dent J. 2013; 25: 111–118.

3. Greenberg MS, Glick M, Ship JA. Burket's oral medicine. 11th ed., Ontario. Bc Decker Inc: 2008. Pp: 1-15.

4. Petersen PE, Bourgeois D, Ogawa H, Estupinan-Day S, Ndiaye C: The global burden of oral diseases and risks to oral health. Bull World Health Organ 2005; 83: 661-669.

5. Suliman M, Åstrøm AN, Ali RW, Salman H, Johannessen AC. Oral mucosal lesions in skin disease patients attending a dermatologic clinic: a cross-sectional study in Sudan. BMC Oral Health 2011; 11:24 doi:10.1186/1472-6831-11-24

6. Petersen PE: The World Oral Health Report 2003: continuous improvement of oral health in the 21st century--the approach of the WHO Global Oral Health Programme. Comm Dent Oral Epidemiol. 2003, 31: S3-23

7. Al-Mobeeriek A, AlDosari AM. Prevalence of oral lesions among Saudi dental patients. Ann Saudi Med. 2009; 29: 365–368.

8. Bhatnagar P, Rai S, Bhatnagar G, Kaur M, Goel S, Prabhat M. Prevalence study of oral mucosal lesions, mucosal variants, and treatment required for patients reporting to a dental school in North India: In accordance with WHO guidelines. J Family Comm Med. 2013; 20: 41-48

9. Patil S, Reddy SN, Maheshwari S, Khandelwal S, Shruthi D, Doni B. Prevalence of recurrent aphthous ulceration in the Indian Population. J Clin Exp Dent. 2014; 6: e36-40. doi: 10.4317/jced.51227.

10. Akhigbe KO, Koleoso ON, Akpata O, Omoregie FO. A study of personality and psychological distress among delusional halitosis patients. JMBR. 2008; 7:5-11

11. Delanghe G, Bollen C, Van Steenberghe D. Foetor ex ore. Ned. Tydsc. Tandhee LKD. 1998; 105:314-317.

12. Afolabi AO, Ogundipe OK, Eleckwachi G. Halitosis (bad breath): an assessment of the awareness and knowledge of health providers in a Nigerian community. Sudan Med J. 2009:45: 43-48

13. AssociaçãoBrasileira de Halitose (ABHA). Halitose 2009. http://www.abha.org.br, accessed 5 March 2015.

14. ADA Council on Scientific Affairs Halitosis. J Am Dent Assoc. 2003; 134: 209-14.

15. Soares LG, Tinoco EMB. Prevalence and related parameters of halitosis in general population and periodontal patients. OA Dentistry 2014; 25; 2: 4-9.

16. Eboli P, Stone JL, Aydin S, Slavin KV. Historical characterization of trigeminal neuralgia. Neuro-Surgery. 2009; 64: 1183-1186

17. Omoregie FO, Akpata O, Koleoso ON. Psychological assessment of a case of trigeminal neuralgia. Ann Biomed Sci. 2013; 12:118-122.