



The Prevalence of Oral mucosa Lesions among Lao Dental patients Attending Dental Clinic at University of Health Sciences, Laos

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ABSTRACT

Background and Objectives: The examination of oral mucosa lesions is an important in diagnosing of several oral lesions for early detection of potentially malignant disorders which may progress into malignancy. In Laos, there are no reported of information on the incidence of oral mucosa lesions, therefore, the purpose of this study was to evaluate the type and extent of oral mucosa lesion (OMLs) in a study among Lao patients attending oral medicine dental clinic at the University of Health Sciences in Laos.

Material and Methods: A retrospective study was conducted among Lao patients attending oral medicine dental clinic at the University of Health Sciences in Laos, during the period from 2019-2023, the total of 9631 dental outpatients were interviewed and oral clinical examination for the presence of oral mucosa conditions including a radiographic and the diagnosis was confirmed by histopathological when necessary. The statistical package for Social Sciences Program SPSS 22 were used for analyzed for oral mucosa data and the Chi-square test were used in describe compare variables and P value < 0.05 was considered significant.

Result : Among of 154 patients found to have oral mucosa lesions, females constituted 105(68%) and male were n=49(32%). The age of patients was between 16 to 91 years with mean age of 45.6 years. The most commonly affected age group was 16 to 30 years which comprised 29.8%(n=46) of all effected individuals. The least affected age group were older than 70 years. The most common lesion was Oral Lichenphanus 18.2%(n=28) followed by pyogenic granuloma 16.9% (n=26), Aphtous ulcer, and Hyper gingival with 11.7% (n=18), followed by Oral fibroma 10.4(n=16), Oral squamous cell carcinoma 9.1%(n=14), Oral candidiasis 5.2%(n=8), Ameloblastoma and Burning mouth

2.6%(n=4), hemangioma, Oral phempigoid and geographic toungue 1.9%(n=3), Fissure toungue 1.3%(n=2), lipoma, fordy granuloma, lymphoma, Herpes simplex, Oral verrucus carcinoma, Mucocele, and Oral squamous papilloma 0.64(n=1).

Conclusion: The finding of this study provide information on the types and prevalence of oral lesion among Lao dental patients. This provides baseline data for future studies about prevalence of oral lesion in Lao population

Key words: Laos, Prevalence, Oral lesions, Oral mucosa lesions

I. INTRODUCTION

Several oral mucosa Lesion(OMLs) including recurrent aphthous ulcer, burning mouth syndrome, oral lichen phanus, oral leaukoplakia, oral erythroplakia, traumatic ulcers and some of these disease have malignant disorder that occur in oral cavity ⁽¹⁾. the incidence rate are higher in Southeast Asia with up to 50% of all malignant tumors ⁽²⁾, Clinical presentation and appearance of premalignant lesion is one of disease which have syndrome if untreated may lead to cancer, therefore knowing the oral lesions and conditions can helps to plan future oral identification and treatment of the and important for future oral health studies to improve regional screening program. The Faculty of Dentistry of Laos University is the only dental school in Laos, and offers low price dental including oral mucosa examined services to the general public. The lack of information on the incidence of oral cancer and premalignant lesion and the associated risk factors in Laos. Therefore, the objective of this study will determine the prevalence and risk factors of oral pre- cancer lesions among the study population in Vientiane, Lao P.D.R



II. MATERIAL AND METHODS

Study Design

A hospital based retrospective study was carried out between 1st January 2019 to 31st November 2023 on new patients aged 16 and over, no > 91 years attending the University of health sciences dental clinic admission. The study was approved by the Research Ethics committee of University of Health Sciences N.810, 6/June/2024.

Inclusion and exclusion Criteria. Those cases that indicated in oral mucosal, and have clinical diagnosis and biopsy diagnosis, along with data of the location, site of the lesion. Record with incomplete demographic or clinic data was excluded.

Data sources. Data collection was performed by two oral examiners and two pathologist through the previous outpatient records of oral medicine department. History taking including age, gender, chief complaint, and habits were recorded. Using the Color Atlas of common Oral Diseases and oral screening examination including intra oral and radiographic examination was performed. The type and distribution of the oral mucosal conditions were recorded

Data were analyzed using the statistical package for Social Sciences for Windows 22(SPSS Inc, Chicago, IL, USA)

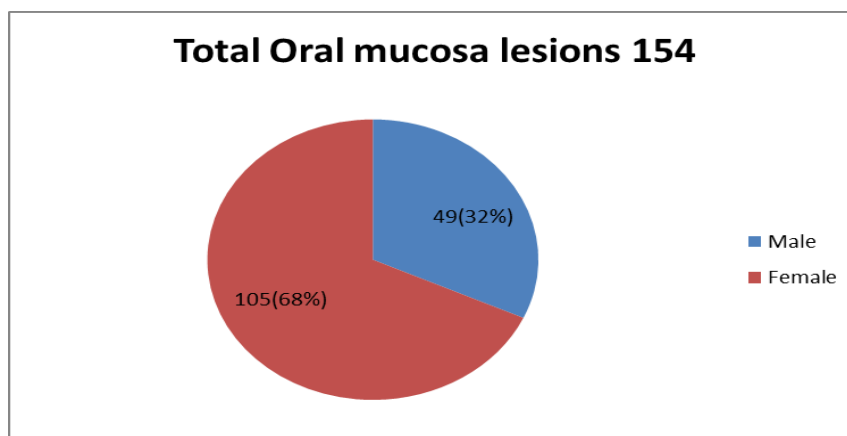
III. RESULT

Among the records of 9631 out patients department, only 154 (2%) patients found to have oral mucosa lesions (OMLs), and there were more prevalent among females than male (figure.1). A

total 20 types of OMLs were note among 154 lesions. The age of patients was between 16 to 91 years with mean age of 45.6 years. The most commonly affected age group was 16 to 30 years which comprised 29.8% (n=46) of all effected individuals (figure.2). The least affected age group was older than 70 years. The most common lesion was Oral Lichenphanus 18.2%(n=28) followed by pyogenic granuloma 16.9% (n=26), Aphtous ulcer, and Hyper gingival with 11.7% (n=18), followed by Oral fibroma 10.4(n=16), Oral squamous cell carcinoma 9.1%(n=14), Oral candidiasis 5.2%(n=8), Ameloblastoma and Burning mouth 2.6%(n=4), hemangioma, Oral phempigoid and geographic toungue 1.9%(n=3), Fissure toungue 1.3%(n=2), lipoma, fordy granuloma, lymphoma, Herpes simplex, Oral verrucus carcinoma, Mucocele, and Oral squamous papilloma 0.64(n=1).

The prevalence of benign lesions was 89.62%of all case diagnoses while malignant lesions reached 10.38% (Figure.4) a mong women more prevalence than men. In addition, pyogenic granuloma was most frequent in young age (figure.3) and mostly in women more than men (Figure. 5)

The most common OMLs were gingival(47.4%), and female were high more than male(Figure.6) most lesions were related to systematic, and second common were found on buccal mucosa(35.1%)that were related to mechanical friction or trauma which is common in this area as well as the lateral border of the tongue.



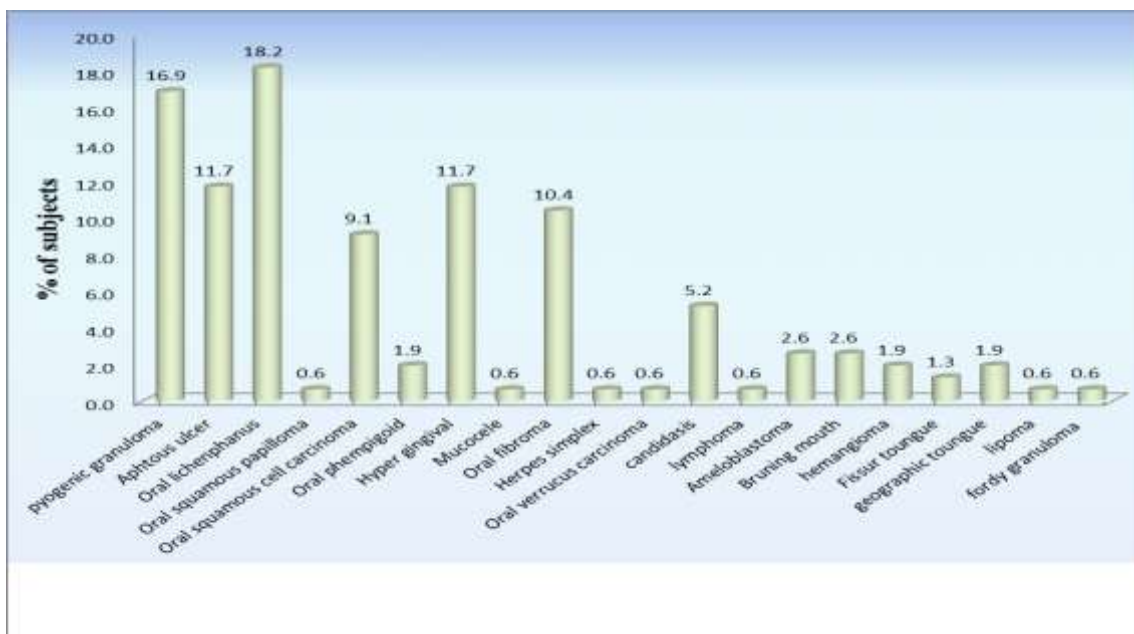


Figure 4. Distribution of study sample according to the diagnosis

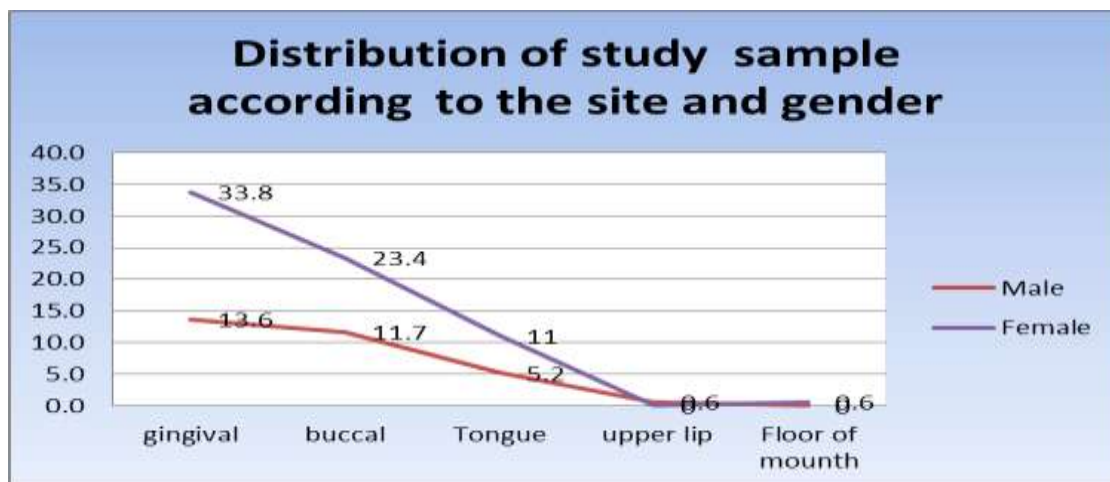


Figure6. Distribution of study sample according to the site and gender

IV. DISCUSSION

In this study, the overall prevalence of oral mucosal lesions found to be in younger patients higher than in older as 29.8% similar study by Angadi PV as Oral submucous fibrosis was seen in younger age (20–30 years) (3). The most common was pyogenic granuloma frequency related with the female gender with the majority of this lesion attributed to poor hygiene, as reported by similar studies, whereas traumatic, and fibroma inflammatory fibrous hyperplasia, are also determined as frequent lesions (4) (5) (6) (7) (8) (9). We also found that the prevalence of OMLs were slightly more common in female (68%) than male (32%), this finding could be contributed to that

female attending the dental clinic more frequently than male. similarly, in study by Al-Mobeeriek et al. (57.7% in females and 42.3% in male) (10), Shrestha et al (56.1% in females and male 43.9%) (7), RGK Shet et al. (8), Talole K et al (11), Bajaj DR et al (12), M Radwan et al (Female 67.2%, Male 32.8%) (4). It is at variance with other studies in which male were more affected than female (3, 13) (14). That may be due to the reason that males constituted a bigger group of the studied.

The most common OMLs seen among the study population were oral Lichen planus the major of patients were elderly patients with mean age of 46 years old. Similarly seen in studies by Rodphon et al, and Ge, Shuyun, et al. (15) (16)



Regarding The location for OMLs (47.4%) in our study most common on gingival which similar as the reported by Bajracharya et al^{(17), (18)}, which was different than that reported by^{(19), (20), (21), (18)}

The prevalence of malignant lesions was in middle aged and older women with 10.38%, which higher compared to studies by Gupta A et al^{(22), (23)}, in contrast many reported found that carcinomas were common in male more than females^{(6), (24), (25)}

V. LIMITATION

In this study not having analyzed the risk factors associated with appearance lesions of the oral mucosa

The population in this study does not represent the entire country. Hence data with larger sample size for longer duration may overcome this limitation

VI. CONCLUSION

The finding of this study provide important information on the types and prevalence of oral lesion among Lao dental patients. This provides baseline data for future studies about prevalence of oral lesion in Lao population

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