PREMALIGNANT LESIONS OF ORAL CAVITY - A CLINICO-PATHOLOGICAL STUDY

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ABSTRACT

BACKGROUND
A study was conducted on a total of 360 patients to find out the incidence of premalignant disorders in the oral cavity who attended the ENT OPD of Gauhati Medical College and Hospital, Guwahati, Assam. The study is cross-sectional in nature.

MATERIALS AND METHODS
The duration of the study was one year from 1st February 2014 to 31st January 2015. A total of 360 patients who were suspected of premalignant disorders were subjected to either incisional or excisional biopsy.

RESULTS
Out of them, 87 were found to be PMDs as per biopsy report.

CONCLUSION
Biopsy positive patients belong to age group 28 to 78 years. They mostly belong to middle and lower socioeconomic class; 53 males and 34 females are affected.

KEYWORDS
Leukoplakia, Oral Submucosal Fibrosis (SMF).


BACKGROUND
A precancerous lesion is a morphologically altered tissue, in which oral cancer is more likely to occur than in its apparently normal counterpart. It poses a threat to convert to frank malignancy if not treated. However, in a World Health Organisation (WHO) Workshop held in 2005, it was decided to use the term "Potentially Malignant Disorders (PMD)." The same workshop identified following condition as potentially malignant disorders: Leukoplakia, Erythroplakia, Palatal lesion of reverse cigar smoking, Oral lichen planus, Oral Submucous Fibrosis (SMF) and Discoid lupus erythematosus.

However, out of these WHO has given special stress on leukoplakia which has many a times been attributed to the habits and addictions of the people and has also been reflected in the findings of this paper.

MATERIALS AND METHODS
The study period duration was one year starting from 1st February 2014 to 31st January 2015. A total of 360 patients who were suspected of premalignant disorders were subjected to either incisional or excisional biopsy and out of them 87 were found to be PMDs as proved by biopsy report.

Out of them 53 (60.9%) were male and 34 (39.0%) were females. In all these cases, detailed history which included addiction to various kinds of known carcinogens was taken and routine blood examinations, urine examination, VDRL and x-ray were done.

Observation
Of the 87 patients that were detected belong to the age group 28 years to 78 years and mostly belong to middle and lower socioeconomic class as per Kuppuswamy classification. Most of them were asymptomatic with only few having some symptoms. Out of 216 male patients 53 (24.53%) and out of 144 females 34 (23.6%) were found to be affected.

Age Wise Distribution (In Years)
Among males the number of patients found were 6 (2.7%), 13 (6.01%), 16 (7.4%), 12 (5.55%), 6 (2.77%); and in females 2 (1.3%), 5 (3.4%), 9 (6.25%), 11 (7.6%), 7 (4.86%) in the age groups 28-38, 39-48, 49-58, 59-68 and 69-78 years respectively.

Types of Lesions Found
Leukoplakia was most common of all lesions 77 (88.5%), erythroplakia 1 (1.15%), OSMF 6 (6.89%) and lichen planus 4 (4.59%).

Sites of Involvement
Buccal mucosa was found to be involved in 60 (68.9%), mandibular mucosa 38 (43.6%), maxillary mucosa 19 (21.8%), retromolar trigone 9 (10.3%), floor of mouth 5 (5.7%), tongue 3 (3.4%), palate 1 (1.1%), lip 13 (14.9%) and bilateral involvement was found in 58 (66.6%) of the cases.
PMDs and Oral Cavity Hygiene

78 (89.65%) patients were found to have unhealthy oral cavity, while 6 (6.8%) were found to have being healthy oral hygiene and 4 (4.59%) had edentulous condition.

Symptomatology of the Patients

White mucosal patch was found in 85 (97.7%), burning sensation in 8 (9.19%), pain in 5 (5.7%), restricted movement in 6 (6.8%) and red patch in 1 (1.1%) of the patients.

Addictions and PMDs

Among males 50 (94.33%), 45 (84.9%), 40 (75.47%), 43 (81.13%) and in females 31 (91.17%), 22 (64.7%), 2 (5.8%), 10 (29.4%) were betel nut chewers, tobacco chewers, alcoholics and smokers respectively.

PMD’s and Socioeconomic Status of the Patients

In our study 56 (64.36%) of the patients were from lower social class, 29 (33.33%) from middle class and 2 (2.29%) from upper class as per modified Kuppuswamy classification.

DISCUSSION

The data showed the mean age (mean +/- 2SD) as 53.4 +/- 12.76 with median to be as 53.5 years. Total number of patients increased as the age progressed and maximum number of patients were found in the age group 49 - 58 years (25 or 28.73%) which is slightly less than what was reported by lype et al (50 - 59 years) in 2001, but more than Saraswathi et al (2006) which stated it as 40 - 61 years.

However, the number of patients started decreasing after 49 - 58 years and the least were found in the age group 69 - 78 years.

Incidence was more or less the same in males (24.53%) as compared to females (23.6%). The incidence in males went on increasing till age group 49 - 58 years (11.11%), but in females it increased till age group 59 - 68 years (7.6%).

The incidence of leukoplakia among males was found to be 2.175%, while in case of females it was 13.88%, while overall it was 15.83% which was lower than Pindborg JJ et al 18%, Crivelli et al (1990) 20.5%, but higher than Petit JC (1989) 0.2 - 11.70% and Platka (1979) 9%.

The incidence of lichen planus was 0.925% among the males and 1.3% among the females, while overall it was 1.1% which is less than that found by Charles A. Waldron (1975) 1.5% and Daftary DK (1980).2

OSMF’s incidence overall was 1.66%, which is much higher than what was found by Murty et al (1990) 0.02%. In our study, most common site of involvement was found to be buccal mucosa (68.9%) followed by mandibular mucosa (43.6%), then maxillary mucosa (21.8%), retromolar trigone (10.3%), floor of mouth (5.7%), tongue (3.4%), palate (1.1%), lip (14.9%), while bilateral involvement was found to be (66.6%). Our study found more or less the same data that coincides with that of Shafer and Waldron (1975), Bhonsle et al (1979),3 Pindborg (1990)1 and Soames and Southan (1984).

Around 85 patients (97.7%) presented with whitish mucosal patch, while 8 (9.19%) complained of burning sensation and 5 (5.7%) complained of pain, 6 (6.16%) had restricted mouth opening and 1 (1.1%) had a red patch which was similar to that of workers like Pindborg J et al (1990)1 and Seedat et al (1988).

Very high percentage of patients were addicted to the betel nut chewing (94.13%) for males and (91.17%) for females which was consistent with findings of Seedat et al (1980) and Lancet et al (1933).4 Tobacco chewing among males stood at 84.19%, which was more than that found by Greer et al (1990) and Sanghvi L D et al (1989).5 Alcohol intake was found in 75.47%, which was in contrast with findings of Toru Nagao et al (2005) who did not find any relation of premalignant lesions and alcohol intake. Female tobacco chewers were 64.7%, while only few 5.88% were alcoholics, but 29.4% of them did smoke.

Oral hygiene was generally poor in most (89.65%), while 6.89% had healthy oral cavity and 4.59% were edentulous which was similar to that stated by Mair et al (1991) who attributed poor orodental hygiene to self-neglect as most patients were chronic alcoholics.

Socioeconomic status of the patients showed that most of them belonged to lower socioeconomic strata 64.36% followed by middle class (33.33%) and only few (4.5%) belonged to upper class as was found by Kamel et al (2013) who found most of premalignant lesions in the lower socioeconomic group.

CONCLUSION

Incidence of premalignant disorders is very high in this part of the country and coincides with the findings of Bentall WC et al (1908).6 Most of these disorders can easily be attributed to betel nut chewing, which is almost like a social tradition in this part of the country leading to oral cancers as found by Shanta V et al (1959).7 Tobacco chewing, quid, smoking and alcohol intake all play an important role in the development of these lesions as found by Sanghvi L D et al (1955).8 No sexual predilection was found in the study. Most of these disorders occurred in elderly persons.

REFERENCES