

Clinical Study of Ulcero Membranous Lesions of ORAL Cavity



Medical Science

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ABSTRACT

Oral Cavity is an important site for the manifestation of over 200 systemic diseases, although many lesions and disorders of the oral mucosa are specific to those tissues, oral inspection should therefore be a part of every routine clinical examination. The present study attempts to investigate the various ulcero-membranous lesions limited to the oral cavity. The present series of study concludes with the inferences that in the acute and chronic infective lesions the prognosis and the results are very good with specific antibiotic therapy, the supportive nutritional supplement and advice to avoid the causative irritants.

INTRODUCTION

Michael Glick and Brainwith Muzyka (1992) has studied four AIDS patients with Major RAU (Recurrent Aphthous ulcers). They concluded that, the qualitative and quantitative deficiencies or dysfunctions of T lymphocytes or both, are responsible for many oral lesions in immuno suppressed individuals, therefore using immuno modulators to treat oral ulcers in these pts may be beneficial. Levamisol an immuno potentiating drug restores both deficient phagocyte function and cutaneous delayed hypersensitivity reactions, and increase both absolute and relative peripheral T cell count in their patients. levamisol therapy was discontinued after the ulcer resolved. This levamisol therapy improves healing. The ulcer recurrence rate reduces when used for patients with recurrent aphthous ulcer.

A comprehensive review by Anthony M-Iacopino and Wilion F a Wathen DM (1993) reveals that Denture stomatitis affects some 65% of denture wearers. *Candida albicans* can initiate, maintain and exacerbate the disease. it is rare to find denture stomatitis without one or more predisposing factors that lowers patients resistance. Eg, local factors (like denture irritation, xerostomia) medication (Antibiotics, immuno supperasive drugs) treatment regimens, chemotherapy, radiation therapy. systemic disorders (physical debilitation, malnutrition, endocrine (DM) and immune alteration). CMI (Cell Mediated immunity) protects against candidial disinfection technique for denture ,and oral tissues may diminish or eliminated the need for topical or systemic antifungal. In their study they suggested the following treatment – remove the source, topical nystatin, or mycostatin suspn, oint, troche to be kept in mouth for 5 minutes 3-4 time a day or clotrimazole – commonly used in AIDS. When patients does not responds to topical treatment, or when condition frequently recurs or when serious tissue invasion has already occurred, systemic antifungal drugs are used. Ketaconazole is most effective and least toxic , Fluconazole a new antifungal agent is also available. Lucas VS (1993) determine the association between the prevalence of denture related stomatitis and oral Candidacies in patients undergoing long term treatment with psychotropic drugs and identify the relationships between an increased prevalence of oral Candidacies, denture cleanliness, dietary habits and cigarette smoking. Patients under treatment with psychotropic drugs and who were wearing complete maxillary dentures and compared with control. Patients revealed that the isolation frequency of *Candida* was 64.7% compared with 33% in controls. Oral staphylococcus, carriage was present in 56.9% compared with 17.6% of the controls. Cigarette smoking, sugar consumption and a poor stand-

ard of dental hygiene were common in psychiatric patients then in controls.

Jane Atkinson and Philip Fox. 1993 concluded that oral changes associated with Sjogrens syndrome, xerostomia (dry mouth) is often related to an overgrowth of *Candida* species. Catharina Hester and Johanna Houman studied, the prevalence of oral colonization with *Candida* species in 28 HIV sero positive persons and 28 healthy person. *Candida* was cultured from 75% and 68% of HIV positive and control respectively, with a significantly higher density carriage in HIV seropositive group. Positive smears were seen in 39% of all patients. *Candida albicans* was the most frequently isolated species with botyp 1, accounting for 56% of the isolates. Joel B.Epstein and Marshal Freilichs (1993) assess 27 consecutives patients receiving radiation to the Head and Neck were followed to assess risk factors for the development of candidiasis during radiation therapy, xerostomia was shown to correlate with risk of oro pharyngeal infection. The presence, and use of oral prosthesis were shown to correlate with oral colonization of *Candida albicans* before radiation therapy. S.K.El-Mofty and P.E.Swanson(1983) – reports on 38 new cases with immuno histochemical observation. They observed Eosinophilic ulcer of the oral (Traumatic Eosinophilic Granuloma) mimic oral cancer clinically and is occasionally misdiagnosed as lymphoma on micro scopic examination. Trauma is believed to play a role in its development, but its exact pathogenesis is not known. The pathogenesis of eosinophilic ulcer of the oral mucosa is probably T cell mediated.

Stephen Layton and Joanne James (1993) reported a case of extra medullary plasmacytoma that appeared in an uncharacteristic manner as an ulcerative stomatitis affecting particularly the tongue, and buccal mucosa. The lesions were associated with a transient lichenoid and skin rash, the literature is reviewed, and comparison is made between this tumor and the related plasma cell dyscrasis of multiple myeloma and mono clonal gammopathy.

Fredrick church and Robert H (1992) presented a case of Erosive oral lesions associated with an unusual direct and indirect immune floureson pattern, rather than a sub-mucosal band or intramucosal intercellular deposition, the pattern that of an antinuclear antibody that reacts only with Str. Epi. The clinical similarity of this case to erosive lichen planus is discussed. The usefulness of direct and indirect immune flourescence techniques in the diagnosis of erosive oral lesions is stressed.

Robin.E.Howell and Lynne Gallant (1992) reported in their study involvement of HPV 16 and 18 in a case of sq cell ca of the floor of the mouth, and type 16 was identified in the primary tumor and LN metastasis. Hence supports the hypothesis, that human papilloma virus are co-factors in the pathogenesis of some carcinomas.

Ellen Eisenberg and David Krutch Koff (1993). In their brief article, they represented HIV negative patients with documented oral hairy leucoplakia who had no known risk factor for HIV infection, nor any evidence of other forms of immune suppression, therefore they concluded that, in some instances hairy leucoplakia can represent an isolated and innocuous Epstein barr virus infection.

MATERIAL AND METHODS

Ulcer membrane lesions of the oral cavity may be seen in various systemic, dermatological and dental diseases as well as isolated presentation in throat diseases. The etiological factors are many including physical, chemical and biological agents, and lesions ranges from non specific changes to malignant tumors.

Present study was conducted on 50 cases presenting with ulcerative or membranous lesions, attending O.P.D. of ENT department and cases referred from other departments at KBN Teaching & Gen Hospital Kalaburagi, During 6 months Period, Every case was scrutinized with complete history, clinical presentation and examination of oral cavity in particular and other systems in general, special emphasis was laid on findings of any particular systemic, dermatological, dental, hematological or deficiency disorders.

Cases were analysed on the basis of the pro-forma of the 50 cases, site of involvement, extent of involvement, was noted and investigations carried out accordingly, like routine haemogramme, urine analysis, bio-chemical tests like blood sugar, urea and cholesterol, microbiological studies including direct smear, culture and sensitivity and serology. The other investigations included stool examination, tests for antinuclear anti bodies, Auto immune diseases, and X rays of chest, PNS and mandible, and CT Wherever necessary was done. The cases were subjected to biopsy for confirmation of diagnosis by histopathological examination.

The cases after diagnosis were, then given treatment and followed up. The treatment was either medical or surgical or, radiotherapy in malignant tumors.

The 50 cases were analysed according to age, etiological factors / predisposing factors, socio economic group, clinical signs and symptoms and compared with other studies, and concluded with discussion and summary.

RESULTS & DISCUSSION

Table. No. 1 presents the series of 50 cases of ulcerative and membranous lesions of the oral cavity, the age incidence ranged from 10 months to 75 years, the majority of the pt come under the age group 21-30 years. Comprising 28% and the second largest group is between 10 months to 10 years (24%) probably because In these age group the incidence of bacterial, viral, fungal, helmethic disease, Miscellaneous infection, nutritional deficiencies and psychological disturbances are more common. Oral ulcers first appear in childhood or in adolescence 65-85% developing before the age of 30 years (oral diseases in tropics). The incidence of premalignant conditions were seen in the age group 13-75 years more in the age 38 and 45 years and one case at age 75. Two cases with younger age groups 13 and 22 is noted, this could be due to the habit of chewing mixture of tobac-

co, catechu, lime and spices, which is very common in this region. One male case with age 30 years was diagnosed lichen planus.

TABLE NO. 1. SHOWING THE AGE DISTRIBUTION OF CASES STUDIED

S l No	Age Group	No. of Patients	%
1.	10 months - 10 years	12	24%
2.	11 years - 20 years	7	14%
3.	21 years - 30 years	14	28%
4.	31 years - 40 years	7	14%
5.	41 years - 50 years	1	2%
6.	51 years - 60 years	5	10%
7.	61 years - 70 years	2	4%
8.	71 years - 80 years	2	4%
	Total	50	100%

In the present series, out of 9 cases with oral cancer, 7 cases were aged between 50 and 70 with average 60 years and 2 cases between 30 and 40 years.

Table No. 2. Shows the distribution of sex, in the present series of study the males outnumbered the females. Males constitutes 56%, and females 44%, the predominance of males may be due to their habits like chewing tobacco, tobacco with betel, smoking, alcoholic drinking, tension, stress/strain and anxiety. It is also possible that, males come to hospital earlier than the females, the pre-cancerous lesion like leucoplakia effects men more frequently than women due to their common habits mentioned above. 55-87% in men as studied pinborg 1973. In the present series of study out of 7 pre-cancerous conditions (leucoplakia 6, and 1 case of oral Lichen Planus), 6 were males. It is also evident from the present series of study in which male sufferers are 7 out of 9 oral cancer pts.

TABLE NO. 2 : SHOWING THE SEX DISTRIBUTION

Sex	No. of Patients	%
Males	28	56%
Females	22	44%

Table. No. 3 Reveals the socio-economic conditions of the cases studied. It is observed that an over whelming majority of cases 68% are from the low income group or poor class. Middle income group comes next with 24% and only 8% of cases are from high income group. The underlying causes for this discrepancy might be, Illiteracy, Poverty, Over Crowding, Unhygienic Habits, Lack of Health consciousness and superstitious beliefs.

TABLE. NO. 3 : SHOWING THE SOCIO-ECONOMIC STATUS

Income Group	No. of Pts	%
Low Income	34	68%
Middle Income	12	24%
High Income	4	8%
Total	50	100%

Among the personal habits, possible etiological and contributing factors, in the present series of study on 50 cases shown in table. No. 4. 44% of the pts used to take vegetative diet, 36% non-veg and 20% mixed diet, 6% spicy and 18% very hot food habit and smoking beedies and cigarettes were seen in 38% of the cases. Incidence in different categories, i.e. among benign lesions were 6 out of 34 cases, 6 out of 7 premalignant and 7 out of 9 cases with oral cancer. Maximum in the later two groups. The second commonest habit 34%, found in this series is tobacco chewing, 17 cases out of 50 cases among which 1 case in benign group, 7 out of 7 from premalignant and 9 out of 9 cases from malignant group of ulcero membranous lesions. Tobacco was also chewed with other ingredient like Catechu, Betalnut and Spices, it was seen in 12% of case from premalignant group. Betel, tobacco and quid chewing was the habit of the cases comprising 6%, 14% and 12% respectively. Lime and tobacco was chewed by 12%, 2 cases out of 7 premalignant and 4 cases from malignant group. Habit of snuff dipping was seen in 1 out of 7 cases from premalignant group and 2 out of 9 malignant oral ulcers cases, comprising 6%.

In the present series one case of carcinoma hard palate is noted with the habit of reverse smoking.

The habit of placing mixture of tobacco and lime in the oral vestibule was seen in 2 cases out of 7 premalignant and 4 out of 9 malignant cases.

TABLE. NO. 4 : SHOWING THE PERSONAL HABITS, POSSIBLE ETIOLOGICAL AND CONTRIBUTING FACTORS IN DIFFERENT TYPES OF ULCERO-MEMBRANOUS LESIONS

Habits / Etiological & Contributing Factors	Benign Group	Premalignant Group	Malignant Group	Total %
No of cases – 50	34	7	9	100%
1. Tobacco Chewing	1	7	9	34%
2. Betel Tobacco Quid	3	4	6	26%
3. Lime with Tobacco	--	2	4	12%
4. Mixture of Lime Tobacco, Catechu & Spices	--	3	--	6%
5. Betel Quid	8	--	--	16%
6. Betel Nut Chewing	5	5	6	32%
7. Snuff	--	1	2	6%
8. Smoking	6	6	7	38%
9. Beedies	2	3	5	20%
Cigarette	4	3	1	16%
Cigar	--	--	--	0
Clay Pipe	--	--	--	0
Reverse Smoking	--	--	1	2%
10. Alcoholic Beverages	2	2	5	18%
11. Dietary habits				
Veg	16	2	4	44%
Non-Veg	12	3	3	36%
Mixed	5	2	3	20%
Spicy Food	1	2	--	6%
Very Hot Food	3	2	4	18%
Excessive Chilies	4	2	2	16%
12. No Habits	19	--	--	38%
13. 2 or more Habits	3	7	6	32%
14. Bad oral hygiene	7	2	8	34%
15. Bad Teeth	7	2	8	34%

16. Traumatic irritations due to ill fitting denture	--	--	1	2%
Sharp Edged tooth	2	--	--	4%
17. Irritants	--	--	2	4%
18. Malnutrition	12	--	4	32%
19. Anaemia	16	2	6	48%
20. Antibiotic Therapy	5	--	--	10%
21. Radio Therapy	1	--	--	2%
22. Chemo Therapy	--	--	1	2%
23. Chronic Illness	3	--	2	10%
24. Tuberculosis	1	--	1	4%
25. Syphilis	1	--	--	2%
26. Oral Sub mucous Fibroses	1	2	2	10%
27. Leucoplakia	--	--	3	6%
28. Mental Tension & Anxiety	2	1	4	14%
29. Stress / Strain	4	--	--	8%
30. Worm Infestation	3	--	--	6%
31. Allergy	1	--	--	2%

Among the common presenting symptoms and signs 56% of the patients in the series complained of pain of mild to moderate intensity and few cases with severe. 50% of the patients with pain comes under benign group 6% (8 cases out of 9) from malignant. Fever was the feature in 15 cases out of 34 benign 3 out of 9 malignant, maximum among benign, suggestive of its association with various infections. Odynophagia comprising 48% of cases was the feature in benign ulcerative lesions. Three with malignant ,and one with premalignant lesion. 40% of the pts under benign. 18% malignant and 14% premalignant suffered burning sensation, as shown in Table. No. 5.

TABLE. NO. 5 : SHOWING THE COMMON-SYMP-TOMS AND SIGNS IN DIFFERENT GROUPS OF ULCERO-MEMBRANOUS LESIONS

Symptoms and Signs	Benign Group	Premalignant Group	Malignant Group	Total %
No of cases – 50	34	7	9	100%
1. Pain	25	--	8	68%
2. Fever	15	--	3	36%
3. Odynophagia	20	1	3	48%
4. Trismus	2	--	2	8%
5. Profuse Salivation	2	--	2	8%
6. Burning Sensation	20	7	9	72%
7. Foetide Breathing	2	--	2	8%
8. Referred otalgia	--	--	1	2%
9. Presence of Mass in the Mouth	--	--	4	8%
10. Ulcer Non-Healing	26	--	9	70%
	2	--	9	22%
11. Membranes / Plaques	6	7	2	30%
12. Swelling	2	--	22	4%

Thus in the present series of study the ulcerative lesions were predominant, comprising 66% with maximum number of cases (i.e. 54%) of benign nature under which 18% were miscellaneous (RAU), of bacterial origin 14%, with anemia and pregnancy 8%, associated with Helmenthiasis 6%, Dermatological diseases 4%, viral, Allergic and traumatic 2% each respectively. Among 18% of malignant ulcerative lesions 4% were associated with membranous lesions. Among the membranous lesions, 7 cases (i.e. 14%) were of benign nature and 7 (i.e. 14%) cases were of premalignant nature, comprising 6 cases of leucoplakia and 1 case of lichen planus. In the present series of ulcerative

and membranous lesions of the oral cavity 50 cases were studied with different views as shown in different tables.

In all the cases studied, the commonest factors for the ulcero membranous lesions were, among malignant and pre-malignant lesions. Tobacco chewing, tobacco with betel quid and with other ingredients, and smoking in majority of oral cancer, drinking alcoholic beverages, bad oral hygiene and dental irritating factors were the common predisposing factors. In other benign cases the commonest etiology was nutritional deficiency, mental stress, bacterial infections and the other causes were systemic viral and dermatological diseases etc.

The commonest age group was 21-30 years, majority of malignant oral ulcerative were found among 50-70 years and premalignant were among 38-45 involving even 13 and 75 years.

In the present series 56% were males and females were 44%. Premalignant and malignant conditions were more in males, may be because of habits of chewing tobacco, smoking and alcoholism. Majority of patients were belonging to low socio-economic groups, comprising 68% probably because of malnutrition, bad oral hygiene giving rise to repeated infective lesions in the mouth.

Regarding dietary habit majority of patients among benign lesions were taking veg. diet. Aphthous ulcers were more commonly found in pts who were constantly under mental stress / strain, and psychologically disturbed. Among the malignant oral ulcerative lesions, Buccal mucosa was the commonest site involved, comprising 55.5%, next was lateral margin of the tongue i.e. 33.3%, as shown in the table. No. 6

TABLE. NO. 6 : SHOWING THE INCIDENCE OF ORAL MALIGNANT-ULCERS INVOLVING DIFFERENT SITES

Sl.No.	Site	No. of Pts	%
		9	100%
1.	Buccal Mucosa Rt Buccal Mucosa Lt Buccal Mucosa with Leucokplakia	5 2 3	55.5%
2.	Oral Tongue (Ant 2/3 rd) Dorsum Ventral Surface Lat Margins Tip	3 3	33.3%
3.	Upper & Lower alveolar ridges	--	--
4.	Lips (Upper & Lower)	--	--
5.	Retromolar trigone areas	--	--
6.	Floor of the mouth	--	--
7.	Hard Palate	1	11.2%
8.	Multiple sites	--	--

The lymph node metastasis was seen in one case with Ca tongue, Ant (2/3rd) also involving mandible.

In the present series ulcerative lesions were more common i.e. 66%, membranous 28%, and ulcero-membranous were 6%, as mentioned in table. no. 7.

TABLE. NO. 7 : SHOWING PERCENTAGE OF ULCERATIVE, MEMBRANOUS AND ULCERO-MEMBRANOUS LESIONS OF ORAL CAVITY

Lesions	Ulcerative	Membranous	Ulcero-membranous
Benign	27 - 54%	7 - 14%	--
Premalignant	--	7 - 14%	--
Malignant	6 - 12%	--	3 - 6%
	33 - 66%	14 - 28%	3 - 6%

The present series of study concluded with the inferences that, in the acute and Chronic-infective lesions, the prognosis and the results were very good with specific antibiotic therapy and supportive nutritional supplements and advice to avoid the causative irritants. In some cases the recurrence was very common inspite of all available treatment given. The prognosis in the pre-malignant conditions like leucoplakia and lichen planus is good with local excision and supportive treatment with vitamin A, E and B-complex and other Antioxidants, with total abstinence from tobacco and mixture of tobacco with other ingredients. The prognosis was satisfactory with no recurrence in six months observation period. In malignancy of Stage -I and II of tongue (ant 2/3rd), buccal mucosa and hard palate With local wide excision followed by radio therapy. In pts with Stage III and IV, buccal and tongue malignancy the prognosis was observed to be very poor even after radical surgery of local lesions, RND with radio therapy and chemotherapy.

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