

## Observation on ulcer in oral cavity and oropharynx

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### Abstract

#### Introduction

An 'Ulcer' is defined as an open sore, an interruption of surface continuity of skin or mucous membrane with accompanying inflammation. It is more justifiable to classify the ulcers as non-malignant and malignant conditions. Oropharynx although refers to a rather small area of pharynx yet to find an ulcer in the area which contains a very important structure – 'the tonsils' is not uncommon.

**Purpose:** The aims of my study are to observe & study different ulcers of oral cavity & oropharynx.

**Methods:** The present study includes observation on 100 cases of ulcers in oral cavity & oropharynx, from point of view of knowing their types. All these cases were taken from the surgery out-patients department as well as from the E.N.T.out-patients department of the Darbhanga Medical College Hospital from Aug. 2011 to July 2013. A detailed history was taken and complete general and through examination of ear, nose and throat of the patients was done.

**Results:** The ratio between the malignant non – malignant ulcer was found to be 2.1. Out of 68 cases of Malignant ulcer, 62 cases were sq. cell carcinoma, 4 lymphosarcoma & 2 cases of adenocarcinoma. The maximum incidence was that caused by Aphthous ulcer constituting 31% of non-malignant ulcer. The Maximum age incidence of 47.06% was observed in 51-60 yrs. age groups followed by 61-70 yrs age group which comprised 36.76%. males are affected more than females.

**Conclusion** Malignant ulcer (68%) of oral cavity & oropharynx were much more common than non-malignant ulcers (32%) due to presence of predisposing factors like smoking, pan chewing, betel and tobacco chewing. Incidence of scc is highest in malignant ulcers whereas aphthous is commonest among non malignant ulcer. Incidence is higher in hindu males. it is also more common among smokers

#### Keywords:

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### I. Background

An 'Ulcer' is defined as an open sore, an interruption of surface continuity of skin or mucous membrane with accompanying inflammation. It is of course frequently produced by injurious agents directly on the surface, yet not uncommonly one is met with an ulcer whose exact aetiology become very difficult to be ascertained. Howarth (1992) said, "when we see an ulcer in the oral cavity, palate and fauces, we have all been brought up to keep the possibility of cancer, aphthous and Traumatic in the forefront of our mind with the streptococcus, Vincent's angina, moulds and fungi, as accessory to the main issue. It is more justifiable to classify the ulcers as non-malignant and malignant conditions. No definite classification of the ulcers of oral cavity & oropharynx is found anywhere in the available literature. Oropharynx although refers to a rather small area of pharynx yet to find an ulcer in the area which contains a very important structure – 'the tonsils' is not uncommon. It is not infrequent to find a person complaining of sore throat having an ulcer in the oropharynx.

### II. Purpose

The aims & objective of my study are to observe & study different ulcers of oral cavity & oropharynx.

### III. Methods

The present study includes observation on 100 cases of ulcers in oral cavity & oropharynx, from point of view of knowing their types. All these cases were taken from the surgery out-patients department as well as from the ENT out-patients department of the Darbhanga Medical College Hospital from Aug. 2011 to July 2013. A detailed history was taken and complete general and through examination of ear, nose and throat of the

patients was done. Apart from other local examinations, indirect laryngoscopy where required was done from ENT department. Then the routine laboratory investigation were done. The patient was then taken to the operation theatre where under local anesthesia i.e. after spraying the throat with 10% xylocaine spray biopsy was taken from the margin of the ulcer. In those cases where ulcers were too small and shallow and clinically diagnosed as non-malignant, biopsy and histopathological examination was not done. The LN, if involved was biopsied either LN was removed (Excisional biopsy) & tested or FNAC was done.

#### IV. Results

Incidence of Ulcers is gradually increasing. The ratio between the malignant non – malignant ulcer was found to be 2.1

##### Showing different histological type of Malignant ulcers

Type of Malignant ulcers	No. of case	%
Squamous cell carcinoma	62	91.2
Lymphosarcoma	4	5.9
Adenocarcinoma	2	2.9

Out of 68 cases of Malignant ulcer, 62 cases were sq. cell carcinoma, 4 lymphosarcoma & 2 cases of adenocarcinoma.

##### Showing different types of Non-Malignant ulcers

Type of Non-malignant ulcer	No. of cases	%
Aphthous ulcer	10	31
Traumatic ulcer	9	28.13
Oral thrush	3	9.38
Streptococcal	3	9.38
Leukoplakia	3	6
Herpes Simplex stomatitis	2	6
Drug induced	1	3.13
Vincent's	1	3.13
Syphilitic	1	3.13

The maximum incidence was that caused by Aphthous ulcer constituting 31% of non-malignant ulcer. Both Aphthous & traumatic constituted 59.38% of non-malignant ulcers. Rest all types contributed the remaining percentage. In this series, the youngest one was of 42 yrs. Whereas eldest was of 71 yrs. The Maximum age incidence of 47.06% was observed in 51-60 yrs. age groups followed by 61-70 yrs age group which comprised 36.76%. In the series of non-malignant ulcers, the maximum incidence of 16 cases i.e. 50% found in 11-20 yrs age group followed by 9 cases in 0-10 yrs. age group. No cases of non-malignant ulcers were found in age  $\geq$  50 years. Malignant ulcers are mostly observed in male sex. Because it is in the males that the maximum exposure of predisposing factors occurs. But cases in female is also on increase in this region. Here also males were more affected than females. Hindus were more affected as compared to other religions. Out of 100 cases studied, 59 case of ulcer were found in Hindu as 41 in Muslim. The explanation in favour of this data is that patient attending the E.N.T. and surgery O.P.D. were mostly Hindu.

Maximum incidence of Sq. cell CA was found in 51-60 age gr. Comprising 45.2%, followed by 61-70 yrs. age gr. Comprising 40.3%. No cases were found in age group 0 to 40. All cases of lymphosarcoma were found in age gr. 51-60 while adenocarcinoma in 41-50 yrs age group. 67.7% of sq. cell CA were found in males while all cases of lymphosarcoma adenocarcinoma were observed in males only. & Most of the patients belonged to middle class and lower class comprising 84% and 16% respectively. Upper class people usually do not come to our O.P.D. All the three cases of streptococcal origin were observed to arise in soft palate. 4 cases of traumatic ulcer were found in cheek mucosa & 3 cases in tongue & 2 cases in hard palate. Traumatic ulcers were mostly observed in children. Cases pressing with Aphthous ulcer showed involvement of cheek mucosa, tongue, lips & soft plate & uvula with maximum 4 cases occurring in cheek mucosa. The only case of syphilis was seen in soft palate & uvula, while that of Vincent in tonsillar fossa. Incidence of drug induced ulcer due to tinidazole was seen in lip. Both the cases of herpes simplex stomatitis & leukoplakia was seen in cheek mucosa. 2 cases oral thrush was seen in cheek mucosa while 1 case in tongue. Most cases presented with difficulty in swallowing. This was closely followed by pain in 53.2% cases. About 9.6% of Sq. cell CA presented with pain in ear while 16.1% with swelling in neck. Adeno CA cases showed difficulty in swallowing while lymphosarcoma presented with pain in throat, difficulty in swallowing & swelling in neck. 100% cases of Aphthous & traumatic ulcer presented with pain & ulcer in oral cavity & oropharynx. The single case of Vincent presented with pain & difficulty in swallowing. All the three cases of streptococcal origin presented with pain & ulcer & 1 case also presented with difficulty in swallowing. The single case of syphilitic ulcer presented with ulcer in throat. The majority of patient in this series were addicted to pan chewing (with zarda) & Khaini Taking

& smoking. Alcohol & Betel nut were associated with. Smoking, Khaini & Pan chewing with Zarda accounted for 71% cases of Sq. cell CA. In 70.9% cases of Sq. cell CA, deep cervical LN were involved & in 18 cases or 29.1% cases, sub-mandibular group was involved. The case of adeno CA did not show any LN metastasis while all cases of lymphosarcoma revealed both cervical & sub mandibular LN metastasis.

## V. Discussion

In the present series of cases of ulcers of oral cavity & oropharynx, 68% of the ulcers were malignant and 32% non-malignant. The ratio between malignant and non-malignant ulcers was observed to be 2.13%. Howarth also had observed that cancer should be kept in forefront of mind when seeing a case of ulcer in the buccal mucosa, tongue palate and fauces.

The greatest risk factor for cancers in oral cavity is tobacco use, including smokeless tobacco. Smokers & those who drink a lot of alcohol are 6 times more likely to develop oral cavity, Oropharyngeal CA than nonusers. Other risk factors are poor oral hygiene with bacterial irritation, poor nutrition, Immuno suppressed states (HIV, AIDS). Oral cavity/Oropharyngeal CA. are more common in black than in whites, & men > women & generally found in individuals over the age of 35.

[Ref.- Details guide : oral cavity & oropharyngeal cancer “American cancer society 22 Sept. 2004]. According to WHO (2009) In India oral cancer represents 40% of all cancers. Men affected twice as often as women particularly men older than 40/60. [WHO disease and Injury country estimates WHO 2009, Retrieved Nov. 11, 2009].

Dunon quoted Cohnheim's theory which said that sarcomatous degeneration could follow inflammatory processes directly while carcinoma could be favoured by the inclusion of epithelium in the ulcers.

The high incidence of oral cancer in India has been linked with habit of betel quid chewing incorporating tobacco (Ref.-Sankaranarayan R. oral cancer in India :- Epidemiologic & clinical review . 325-330 ; 1990). This view is also reinforced by Johnson N.

**Age incidence**— it is observed that 83.82 of the malignant ulcers were distributed in the age group of 51-70 years. Padgett observed that average age group of patients with intraoral cancer was 40 to 60 years. Eggston & Wolff also observed that the usual age group involved in his series of carcinoma of tonsil was between 50 to 60 years. Birell observed the average age round about 60 years. Schulz in his series concluded that the maximum incidence was in the age group of 60 to 70 years in which about 33% of cases were found followed by the age group to 60 years and 70 to 80 years in which 25% and 24% cases were respectively found. The very small difference in the age incidence observed in this series of 100 cases from those of other workers is most likely due to the fact that observation carried out was on the Indian people in whom the average span of life is lower than in those of the western countries.

**Sex incidence :-** The author observed that the incidence of malignant ulcers was about two & half times more in males than in females. Coutard observed that carcinoma of tonsils occurred in males in 93.3% of cases; Burnam as quoted by Padgett also found that 77% of cases of buccal cancer were in male sex and 23% in female sex. Birrell emphasized that males were more often affected than female. This shows that incidence of malignant ulcers of oral cavity & oropharynx has also increased in females. Darbhanga has established culture of pan chewing & tobacco equally in males & females.

**Religions :-** In this series of 100 cases, 58.9% cases of malignant ulcer were in Hindus and 41.1% in Muslims. The reason for this high preponderance in Hindus appears to be their population in this state & about 6:4 ratio their visit in surgery and entopd

the number of patients 53.2% presenting with pain in throat is almost in conformity with that of Schulz et al (1933) who observed that 47% of his series of patients with carcinoma presented with the same complaint i.e. pain in throat, Schulz et al did not distinguish cases with ulcerated and non-ulcerated lesions and that is why the small difference between his incidence and that of this series. Negus, Birrell and Capps also mentioned that pain in throat is usually the first symptom noted by the patient. In this series maximum number of patients i.e. 50% of squamous cell carcinoma involved cheek mucosa and both cases or 100% of adenocarcinoma were found to involve the soft palate and uvula whereas Schultz observed that 64.7% of his cases including other type of carcinoma involved the soft palate and uvula. The difference, the author thinks to be due to the fact that Schultz included ulcer of oropharynx mainly while in this series, ulcers of both oral cavity & oropharynx were included. Both the cases of herpes simplex stomatitis & leukoplakia was seen in cheek mucosa. 2 cases oral thrush was seen in cheek mucosa while one case in tongue. It appears obvious that in the present series, the cases were in advanced stages of ulceration and so lymph gland metastasis was found in most cases of scc.

Ulcers of the oral cavity & oropharynx can be classified as :-

**I. Malignant ulcers** – (A) Carcinomatous (squamous cell carcinoma, adenocarcinoma).

(B) Sarcomatous. (lymphosarcoma)

**II. Non-malignant ulcers** (A) Simple ulcers – (streptococcal, pneumococcal, traumatic)

(B) Specific ulcers :tuberculous

Syphilitic(Vincent's,herpetic,leprous, fungal oral thrush, drug induced egtinidazole, Aspirin.

(C) Non-specific ulcers (aphthous, immune mediated,agranulocytosis, leukemic malignant granuloma, pemphigus, leukoplakia, HIV, behcet syndrome , immunological

### III. Ulcers of undetermined aetiology.

### VI. Conclusion

Malignant ulcer (68%) of oral cavity & oropharynx were much more common than non-malignant ulcers (32%), the ratio between the two being 2.13:1The incidence of squamous cell carcinoma (91.2%) was the highest among malignant ulcers of oral cavity & oropharynx. The incidence of Aphthous ulcers was highest (31%) among non-malignant ulcers. The incidence of malignant ulcers was highest (47.06%) in the age group of 51 to 60 years. The incidence of non-malignant ulcers was highest (50%) in the age group of 11 – 20 years..The incidence of malignant ulcers in males (70.6%) was about 2.4 higher than that in females (34.4%).The incidence of non-malignant ulcers in males (65.6%) was much more than that in females (34.4%).The incidence of involvement of cheek mucosa was the highest (50%) in ulcers of squamous cell carcinoma. In this series the incidence of malignant ulcers (58.9%) as well as non-malignant ulcers (59.4%) was highest in Hindus. The maximum number of patient with malignant ulcer of oral cavity & oropharynx presented for examination with duration of symptoms of 9 to 12 months, and maximum number came with the chief complaint of difficulty in swallowing. About 21% patients with ulcers of squamous cell carcinoma were smokers. All cases of ulcers of squamous cell carcinoma and lymphosarcoma showed clinical evidence of metastasis in the regional lymph nodes. The histological study of the different malignant ulcers revealed the same pathology as described by other workers. The descriptions of the non-malignant ulcers were also in similarity with those observed by other workers. It is concluded that malignant ulcers of oral cavity & oropharynx are more common than non-malignant ulcers in this particular region. It is due to fact that people are more exposed to predisposing factors like smoking, chewing pan, betel nut and other tobacco incorporated product and alcohol. Government should take initiative to create awareness among people to quit these habits for betterment of their lives and acquainting them with its harmful effect. Mass media education can also play a pivotal role in this.

### References

- [1]. Sankaranarayan R. oral cancer in India :- Epidemiologic & clinical review . 325-330 ; 1990).
- [2]. Details guide : oral cavity & oropharyngeal cancer “American cancer society 22 Sept. 2004].
- [3]. Wahi, P.N., Lahiri&Keshar (2006) – J. Ind. Med. Asso., 46, 175.
- [4]. Schultz, Werner. (1997). – Disease of Nose, Throat & Ear. 251.
- [5]. Schulz, Milford D. (1993). Amer. J. of Rocetgenology.89, 541.
- [6]. Sanghvi, L.D., Rao &Khanolkar (2005). British Med. J. 1, 1111
- [7]. Negus, V.E. (1933). – J of Laryngology & Otology. 48, 134.
- [8]. Eggston, Andrew A & Wolff Dorothy. (1997). Histopathology of Ear, Nose and Throat, 981.
- [9]. Howarth, Walter. (1992). J. of Laryngology & Otology.47, 767.
- [10]. Howarth, Walter. (1997). J. of Laryngology & Otology. 1
- [11]. Coutard, (1998). Surgical diseases of mouth & Jaw (Padgett). 530.
- [12]. Birrell, J.F. (1991). Logan Turner’s Diseases of the Nose, Throat and Ear. 134.
- [13]. Scully C, Bagan JV, Black M. Epithelial biology. Oral diseases (2005) : 11:58-71
- [14]. Haya – Fernandez MC, Bagan JV. The prevalence of oral leukoplakia in 138 patients with oral squamous carcinoma oral disease (2004); 346-8
- [15]. Johnson N. Tobacco use & oral cancer : a global perspective. Journal of Dental Education – 2001; 65 : 328-39.
- [16]. 16.Sankaranarayanan R, Ferlay J. Head & neck cancer ; a global prespective on epidemiology & prognosis. Anticancer research 1998; 18: 4779-86.
- [17]. Patel SG, Shah J.P. Tumours of oropharynx. Cancer of head & neck, American society 2001; chap 6: 127-45.
- [18]. Robinson K.L., Macfarlance GJ. Oropharyngeal cancer incidence & mortality in Scotland.Oral oncology 2003; 39: 31-6.

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