

OROFACIAL CANCER, AN EMERGING MENACE WITH A CHANGING TREND

Orofacial region is that part of the body found in the head region. It consists of the mouth and all the structures within it, the face and the submandibular region (under surface of the face/upper part of the neck). This region is a vital area for man as it is involved in feeding, speech, and beauty. Any condition affecting this region easily affects psyche and health.

Cancer is a general term used to describe malignant lesion growing in the body.¹ It could be from epithelial (covering of the body surface) or connective tissue (bone, muscle, cartilage, blood), lymph node etc. found in every part of the body. The term is used because over 90% of the malignancy of the region is carcinoma.

The orofacial region has a vast composition of anatomical structures comprising of varying types of cells and tissues. There are skin covering the face and mucosa lining covering all surfaces within the oral cavity and tongue. In the region also are numerous major and minor salivary glands with their epithelial lined ducts and the maxillary antrum lined by secretory epithelium. The cells of these linings are constantly rapidly dividing to replace worn out ones thereby predisposing them to malignant transformation.

Majority of malignant lesions in the orofacial region are squamous cell carcinomas involving the tongue, lip, nasal cavities, paranasal sinuses, nasopharynx, oropharynx, scalp, oral cavity and most of the remainder arises from the salivary glands, jaw bone etc.²

Statistics from developed countries indicate that oral cancer is the fifth most common cancer in men while it is the seventh most common cancer in women.³ Research has also shown that, of the vast number of malignant neoplasm occurring in the developing world, orofacial region ranks among the top most common sites.⁴ However, it does not get the desired publicity and attention like cancers in other parts of the body possibly due to ignorance from poor enlightenment, inadequate dental facilities in the country and poor patients attitude towards their health.

Most orofacial cancer in our environment are diagnosed late; this is because it is often symptomless in its early stage and most patients presents late to the hospital. About 50% of the patients will die of the disease within 5 years even with advancement in its management⁵. This high morbidity and mortality rate seen amongst patients suffering from this condition makes it highly inconveniencing to both the patient and the clinician⁶

Orofacial cancer occur commonly in the elderly and has previously been described as an age-related disease as the affected patients are generally above 40 years.⁶ Men are also more prone to the disease than women. In Britain, intraoral cancer used to be more common in male than female with a ratio of about 3:2 while in developing country like India the ratio is about 4:1.

Causes

The cause of orofacial cancer is not totally understood due to its complex nature but certain risk factors known as carcinogens have been implicated. The risk factors include: tobacco, alcohol which are considered the most important, others are familial, sunlight, infection FROM oncogenic (human papilloma virus HPV, Epstein Bar Virus EBV, syphilis, etc) radiation, pre-existing oral mucosal diseases (eg lichen planus, oral submucous fibrosis), genetic factors, poor oral hygiene, immunosuppression, occupational hazard, nutritional deficiency and intake of hot food, etc.⁶

These risks factor for cancer operate over a long time, and the process of malignant change is so slow, with a window or quiescent period before it becomes evident.⁵ The carcinogens cause a sequence of events that would lead to DNA damage, which eventually leads to gene mutation and finally malignant transformation of the affected tissue.

Clinical features of orofacial cancer include rapidly increasing swelling, non-healing ulcer with indurated base, pain, loose (mobile) teeth, increased salivation, limitation of movement e.g in the temporomandibular joint and tongue, regional node enlargement, bleeding (spontaneous or on slight touch) anaesthesia or paraesthesia

What are the changing trends in orofacial cancer and possible reasons and explanations?

1. Changing age range: malignant neoplasms affecting the orofacial region now presents in relatively higher number of younger individuals than is previously reported. Many young Nigerians are now affected before the age of 40. This finding may be due to low life expectancy among Nigerians and also from HPV which has been found mainly in young oral cancer patients who makes use of less alcohol and tobacco.⁷
2. Sex predilection: males have previously been known to have a higher prevalence of orofacial cancer than females, however there is a gradual shift in this trend with female equally or even having higher prevalence and this finding was attributed to the increasing use of carcinogenic substances such as alcohol and tobacco by females in a study in north eastern Nigeria.⁸
3. Increasing incidence: the number of new case is gradually rising due to increased exposure to carcinogens, poverty and its consequences.⁹

Possible reasons for these trends

1. Change in diet with a shift from fresh traditional African food to processed food, recent studies have shown that certain processed food like meat have a higher tendency to cause cancer than the freshly prepared one.
2. Also, increasing habit of tobacco and alcohol use even from very early age has also been implicated as alcohol and tobacco has been proven to be the major risk factors for cancer and their carcinogenic tendencies appears to be cumulative.
3. Increased exposure to radiation from electrical and telecommunication devices and sunlight partly due to climatic change (depletion of ozone layer) and outdoor activities may also play a role.
4. Increasing use of chemicals in farming and food processing could also play a role as these may find their ways into these food produce.
5. The sudden surge in the use of plastics and polythene in packaging of food products and drinks have been shown to have a place in the recent increase in the incidence of this condition.
6. Recent increase of faith based and traditional healers have added a change in trend in the presentation of orofacial cancer as many of the patients presents late after seeking for solution among these groups of practitioner who usually claims to have solution to every health

challenge though lacking in scientific basis of these conditions.

Remedy

Though the above listed agents have been implicated, however, the aetiology of orofacial remains unknown. Management of orofacial cancer is generally geared towards prevention, early detection and treatment. Prevention involves reducing exposure to the carcinogens, identifying persons with genetic susceptibility and introducing special preventive measures for them, encouraging healthy diet with special emphasis on intake of food with anti-oxidant properties (vitamins A, C, E and beta carotene). People should be encouraged to routinely seek medical and dental checks so that any pathology can be detected early.

Government should strictly monitor the age regulation placed on alcohol use and underage offenders prosecuted. The use of tobacco should be restricted to only those above 18 years of age and the ban of cigarette smoking in public places enforced to protect nonsmoker from its harmful effects.

Use of herbicides and pesticides with no carcinogenic effects should be encouraged and more research should be encouraged by the government to develop other more health friendly alternatives for packing of processed food and drinks. On our own part, avoidance of processed food, those with carcinogenic tendencies and adopting the habit of taking fresh food and fruits should be encouraged.

There should be strict monitoring of the activities of faith based and traditional medicine practitioner in a bid to encouraging sufferers to present early to the hospital for treatment.

Treatment involves mainly surgery, radiotherapy, chemotherapy or any of these combinations. Other treatment modalities includes; cryo/laser surgery, immunotherapy, gene therapy, phototherapy.

In this edition, there are articles spread across various specialities of medicine. We hope that these articles will be beneficial to medical practitioners and the general public in the advancement of knowledge.

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