

Oral Cancer: One of the Leading Malignancies in Bangladesh

Malignant tumours of the head and neck include squamous cell carcinoma of the oral cavity, larynx and pharynx, salivary/glandular cancer, malignant melanomas, lymphomas, and sarcomas. Squamous cell carcinoma is the most common neoplasm of head and neck and accounts for more than 90 percent of all oral malignancies. The incidence of oral cancer varies enormously around the world. The annual incidence of squamous cell carcinoma exceeds 300000 with approximately 2000 new cases being registered per year in UK¹. In both the United Kingdom and USA oral cancer accounts for less than 4 per cent of all cancers, but in India and South-East Asia it accounts for up to 40 per cent of all malignant tumours. Bangladesh has a high incidence rate of oral cancer. Here, the number of new cancer cases is about 200000 per year, of which, oral cancer represents 20% and it is third leading cancer of this country². The high morbidity rate of oral cancer is due to a number of factors including late presentation, failure to respond to treatment regimens currently available, and lack of suitable markers for early detection. The detection of squamous cell carcinoma, which, if treated early, has the best prognosis. Current approaches for controlling this cancer include improved prevention (risk factors such as tobacco, betel nut are well recognized) and early detection of patients with suspicious oral lesions.

Oral cancer may occur on any part of the oral mucosa, but there are geographical variations in the sites particularly at risk which partly reflect different aetiological factors. In the United Kingdom the tongue and floor of mouth are the commonest sites. The palate is an unusual location for carcinoma to develop. Whereas in Bangladesh the buccal mucosa, retromolar trigon, tongue and floor of the mouth is the most frequent site. And this can be described to the widespread chewing of betel quid or pan and to smoking habits in that part of the world.

The aetiological factors implicated in oral cancer are tobacco use, alcohol consumption, chewing of betel quid and betel leaf, sadapata, gul, diet and nutritional status, chronic candidal infection, viral infection, and immune

deficiency. The chewing of betel quid is very common in South-East Asia, the Indian subcontinent, including Bangladesh and large parts of western pacific. Ingredients commonly used in the preparation of betel quid are betel leaf, areca nut, lime, catechu and tobacco. The quid is usually placed in the buccal sulcus and is frequently kept in the mouth for a long time. As the quid is chewed, alkaloids are released from the nut and the tobacco which are said to aid digestion and to produce a slight euphoric effect. The habit is more common in women than in men, although the frequency of use increase with age the habit often starts in childhood. A number of case control studies have reported an increased relative risk of developing cancers of the oral cavity due to the use of betel quid, with or without tobacco³.

Oral cancer has a multifactorial etiology and is the result of genetic damage allowing uncontrolled proliferation of cells. It is a multistep process involving multiple sequential mutations which accumulate within the cell. Mutations in the genes which regulate cell growth and proliferation are particularly important.

The clinical presentation of oral cancer can take many forms. Early lesions are usually asymptomatic. Common modes of presentation are a white patch, a small exophytic growth which in the early stage may show no ulceration or erythema, a small indolent ulcer, or an area of erythroplakia. Pain is seldom present. Clinical features which should arouse suspicion of an early carcinoma are persistent ulceration, induration, and fixation of affected tissue to underlying structures. Lymph node involvement may occur early in oral carcinomas, but enlarged regional nodes do not necessarily indicate metastatic spread as they may show only non-specific changes of reactive hyperplasia. An advanced or late lesion may present as a broad-based, exophytic mass with rough, nodular, warty, hemorrhagic, or necrotic surface, or as a deeply destructive and craterlike ulcer with raised, rolled everted edges. Pain may be a feature of an advanced lesion. Bone invasion may be detected on radiograph and imaging and may be suggested clinically by mobility of teeth, and in the

mandible, by altered sensation over the distribution of the mental nerve, or pathological feature.

The management of oral cancer should be coordinated by a multidisciplinary team, including maxillofacial surgeon, oncologists, radiotherapists, speech therapists and other personnel involved in rehabilitation. The treatment of choice depends on a number of factors including patient preference, biological age, general health and site and staging of the tumour. Biopsy followed by histopathological study is still the main procedure for confirmative diagnosis of the oral cancer. At the same time the conventional CT scan & MRI, are remaining as the main investigative procedure for detection of invasion in hard & soft tissue. The PET CT scan plays a significant role for identification of metastasis and other primary lesions as well⁴. The regional metastasis in neck is very common in oral cancer. For this reason conventional FNAC is the most popular procedure for detection of metastasis. However, there are remarkable role of CT and ultrasound guided FNAC in the diagnosis of regional metastasis of neck lymph nodes⁵.

The management of oral cancer depends on the status of primary lesions, regional neck nodes and distant metastasis (if any). So the primary lesion and the neck lymph nodes should be treated at a time. Wide three dimensional surgical excision of the primary lesion followed by neck dissection is still the main protocol of the treatment of oral cancer when treatment will be considered in a curative motive⁶. However, there is a significant role of post operative adjuvant radiation therapy and/or chemotherapy for prevention of micro metastasis. The chemotherapy is still the treatment option of distant metastasis. Whereas, the palliative surgery with radiotherapy and/or chemotherapy is the management of all inoperable case of oral squamous cell carcinoma⁷. Now- a- days, the development of ultrasonic scalpel simplified the surgical treatment⁸. The quality of life of oral cancer patients improved due to the development of reconstructive oral & maxillofacial surgery in the last 2 decades.

Oral cancer is the one of the most important cause of morbidity and the current magnitude of the problem is extensive. The preventive strategies are broadly catego-

rized into primary, secondary and tertiary. Primary prevention refers to avoiding cancer causing substances in the environment or dietary elements associated with increased risk. Country wide awareness program about the risk of oral cancer may decrease the morbidity. Secondary prevention aims at early detection and removal of benign tumors. For the early detection of oral cancer, screening of oral cancer is very significant. Tertiary intervention involves management through surgery, radiotherapy and chemotherapy followed by post treatment palliative care.

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