Cancer a Global Issue - Time to Consider

Oral cancer in young and adults are now global health issues. Oral cancer ranks third of all cancers in India and if it will not consider it will be soon be the top in all cancers. Cancer is initial progression caused by genetic changes that spread through a sequential series of mutation in specific genes which results in uncontrolled cancerous cell proliferation.

The aforementioned events can be triggered by few intrinsic and extrinsic factors as follows:
- Lifestyle
- Environmental
- Immunosuppression
- Susceptibility.

Numerous associations and societies are now working on every aspect of cancer from beginning to treatments. Nowadays, we have numerous treatment modalities for diagnosis of cancer including advanced therapeutic modalities still mortality rate of oral cancer is 30-45% and reoccurrence is more than 50%.

Oral cancer malignant neoplasm involved site floor of mouth, lip, gingiva and cheek mucosa, tongue vestibular region, etc. The international agency for research on cancer has predicted that India's incidence of cancer will increase from 1 million in 2012 to more than 1.7 million in 2035. This indicates that the death rate because of cancer will also increase from 680,000 to 1-2 million in the same period.

Three most important factors for any cancer patients before therapy starts should be considered are:

- Site of origin (anatomy) and time
- Histological type (for grading)
- Stage or extent of cancer.

Above all staging of cancer is very important component not only for patient treatment but also for cancer research and control activities. The primary location of oral cancer is an important prognostic factor because the affected anatomic area can determine the accessibility and extension of surgery.

The globally accepted method for describing the extent of cancer is the anatomically based tumor, node, metastases (TNM) staging system, which classifies the cancer as to its local, regional, and distant extent. Developed in France in the 1940s by Pierre Denoix, the TNM classification has become the accepted basis of cancer staging.

Some anatomic sites, such as the superior gingivolabial sulcus, are linked with poor outcomes because of their rich lymphatic drainage and difficulty in evaluating the extent of local invasion, and therefore in selecting an appropriate management strategy. Vascular and lymphatic networks, which vary between different anatomic sites, may influence tumor evolution and hence the outcome; thus, squamous cell carcinomas (SCCs) at the base rather than oral part of the tongue have a higher rate of metastasis.

Cancer staging reflects both homogeneous survival data and important variations in disease characteristics that affect treatment options. Differentiation between Stages 1 or 2 and Stages 3 or 4 of oral SCCs is the most important for treatment planning, because:
- Early-stage tumors (Stages 1 and 2) typically require only single-modality therapy (mostly surgical resection)
- Stage 3 and 4 tumors may require multimodality therapy with a combination of chemotherapy, radiation, and surgical resection.

The appropriate therapeutic modalities depend on the site of origin and time duration including staging of the tumor. Population-based administrative data are an effective source of information about chronic disease or for cancer surveillance. However, the ways in which data can be extracted from such databases differ; in practice, certain categories of clinical information may be unavailable.

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