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INNOVATIVE PUBLICATION

Case Report

Understanding oral malignancies: 2 case reports

Donna T Angela[1], M Shanthi[1]*, VC Divya[1], C Ganesh[1], Divya Deepika[1], Hamsavardini[1]

[1]*Dept. of Oral Medicine and Radiology, SRM Kattankulathur Dental College and Hospital, Kattankulathur, Tamil Nadu, India*

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ABSTRACT

The clinical presentation, diagnosis, and management of several squamous cell carcinoma cases are covered thoroughly. Roughly 94% of all mouth malignancies are squamous cell carcinomas. Race, gender, and age group differences exist in annual incidence and mortality rates. This percentage is 7.7 per 100,000 in the US. Like other carcinomas, intraoral carcinoma is more common in older adults, especially in men. Individuals with oral SCC have often known about an abnormality in that area for four to eight months prior to seeking professional medical attention. Early growth is characterized by little discomfort, which may account for the delay in seeking professional assistance. The clinical manifestations of oral SCC include exophytic, endophytic, leukoplakic, and erythroplakic, all of which exhibit apparent surface alterations.
Tobacco usage, excessive alcohol consumption, HPV infection, eating little fruits and vegetables, prolonged sun exposure, and having a compromised immune system are risk factors. Improving outcomes requires early discovery and treatment, which may include chemotherapy, radiation therapy, surgery, or a combination of these. In order to improve the prognosis for oral cancer, early identification and intervention are crucial. Survival risk from squamous cell carcinoma is often low. This article emphasis on the clinical presentation of oral malignancies.

1. Introduction

The characteristic of squamous cell carcinoma (SCC) is an abnormally rapid proliferation of squamous cells. Carcinomas originate in epithelial tissues. It is the most prevalent kind of cancer. They include several categories which can be seen as breast, lung, bowel, and prostate malignancies.[1]

Mouth cancer is seen as a preventable illness because early detection and treatment are accessible. Oral squamous cell carcinomas (OSCCs) account for 95% of head and neck malignancies, and in the past ten years, their incidence has grown by 50%. Ninety percent of individuals with oral cancer also smoke, and it seems that these two factors work together. Most instances of OSCC are identified too late, in stages III or IV, drastically impairing the prognosis and lowering the affected patient's quality of health.[2]

In the United States, after basal cell carcinoma, cutaneous squamous cell carcinoma is the second most common kind of skin cancer. Actinic keratosis is a developing tumor that has the potential to spread throughout the body. A collection of tumors that impact the salivary glands, pharyngeal areas, and any part of the mouth cavity are together referred to as oral cancer.[3] In fact, it appears that all oral squamous cell carcinomas that metastasis to lymph nodes are most commonly associated with tongue squamous cell carcinoma. However, given the high prevalence of hidden metastases in individuals with tiny original tumors and no clinical symptoms of metastatic illness, tongue cancer appears to have a clinically unexpected prognosis.[4]

* *Corresponding author*.
E-mail address: dk9131@srmist.edu.in (M. Shanthi).

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There are different types of epithelial cells and these can develop into different types of carcinoma.

These include:

1. Squamous cell carcinoma
2. Adenocarcinoma
3. Transitional cell carcinoma
4. Basal cell carcinoma

Oral squamous cell carcinoma (OSCC) is the most prevalent oral cancer in the world. Cultural customs and a number of risk factors, including alcohol and tobacco use, add to the variation in its incidence across the globe. Even with a wide range of therapy options available, the five-year survival rate for OSCC remains just 50%. This emphasizes how important it is to diagnose the cancer in its early stage because treatment for the disease at this stage can increase survival rates to as high as 80%.However, because OSCC presents with a variety of clinical presentations, early diagnosis might prove to be tedious. Although persisting ulcerated lesions are a common symptom, early diagnosis can be complicated by the presence of additional clinical characteristics. The majority of primary preventive methods includes teaching people about the risk factors connected to OSCC.

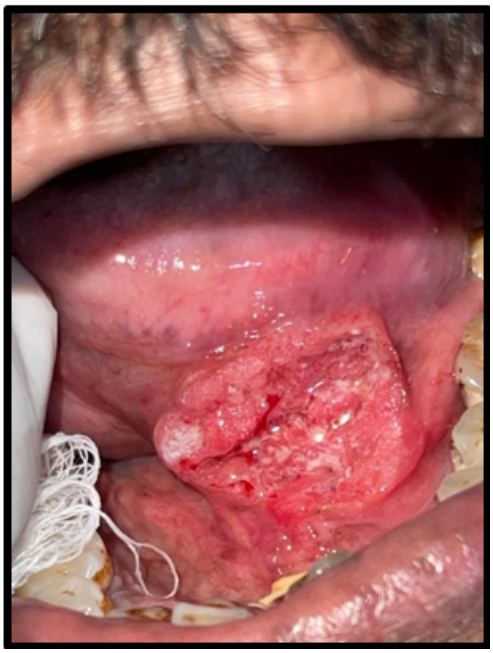

Figure 1: Cinical image showing squamous cell carcinoma on the ventral aspect of tongue

2. Case Reports

2.1. Case 1

A 47 year old male patient reported to Department of Oral Medicine and Radiology, with the chief complaint of wound under the tongue for past 2 months. The patient had a history for smoking and alcohol consumption for past 30 years with a usage of 15 cigrattes per day Intra-oral Examination: on inspection an ulcero proliferative growth is evident on the left ventral aspect of tongue and floor of mouth measuring roughly of size 5x5cm with rough surface and margins are raised, on palpation all inspector findings of site, size, shape and extent are confirmed, tender on palpation is present and blood discharge is seen and indurated lymph nodes are palpable. The margins of the ulcer are everted and the floor show slough formation and surrounding mucosa appears erythematous. (Figure 1)

Provisional diagnosis of oral squamous cell carcinoma was given.

Figure 2: Clinical image showing squamous cell carcinoma in the buccal mucosa

2.2. Case 2

A 42 year old male patient reported to Department of oral medicine and radiology , with the chief complaint of ulcer in the left lower back tooth region for past 6 months. No history of dental and facial trauma was mentioned. Medical History revealed that patient is systemically healthy. The patient had a history of smoking for past 20 years, with a daily usage of 1 pack per day.

Table 1: Summary of cases

Case no.	Age	Gender	Habits	Site	Description
1	47	male	History of smoking and alcohol consumption for past 30 years Per day 15 cigarettes	Ventral aspect of tongue	An ulcero proliferative growth is evident on the left ventral aspect of tongue and floor of mouth measuring roughly of size 5x5cm with rough surface and margins are raised
2	42	male	History of smoking for past 20 years Per day 1 packet Cigarettes.	Buccal mucosa	A irregular ulcero proliferative growth is seen irt 32,33,34,35,36 region measuring 3x3mm with irregular and corrugated surface

Intra-oral Examination: on inspection a localised irregular ulcero proliferative growth is seen measuring 3x3mm irt 32, 33, 34, 35, 36 region, extending superiorly from the attached gingiva of 32,33,34,35 till the lower most part of left lower labial sulcus region anteriorly, extending from the distal aspect of 31 to posteriorly extending till the 36 region with irregular margins, surface over the ulcer appears irregular and corrugated.The floor shows slough formation and the surrounding mucosa is erythematous. On palpation all inspector findings of site, size, shape and extent are confirmed, it is non tender and soft in consistency and a single submandibular lymph nodes was palpable. (Figure 1)

Provisional diagnosis of oral squamous cell carcinoma was given.

3. Discussion

For many years, the prognosis and survival of patients with oral cancer have been estimated, and the treatment strategy for each instance of OSCC has been guided by the tumor, nodes, and metastases (TNM) classification of malignant tumors. On the other hand, a significant number of patients with T1N0M0 and T2N0M0 stages do not react to the recommended treatment plan for their cancer stage. Early-stage tumors (T1-T2) are often treated using a specialized surgical procedure. Although loco regional recurrence is expected in 25-37% of patients, coadjuvant therapy is not anticipated to be required for this kind of tumor.[5]

As a result, in certain circumstances, tumour removal with adequate surgical margins is not considered the best treatment option for these types of malignancies The oral mucosa is simpler to examine thoroughly, making it easier to identify abnormal and potentially malignant tumors early on. However, because of ignorance or limited access to treatment options, cancer is sometimes found in advanced stages. Thus, chairside diagnostic techniques such luidine blue, brush biopsy, etc. should be used to enhance primary identification of oral cancer.[6] Younger people's lack of significant habits has led many to propose that other factors including as immunological weakness, genetic factors, and nutritional factors, may have a part in the genesis of cancer, despite the fact that tobacco and alcohol misuse are claimed to be the key etiologic causes.

But only a small percentage of patients in particular locations have it reported. Additional viruses that have been identified as contributing factors include the human papillomavirus and the herpes simplex virus. In contrast to elderly patients

4. Tongue Squamous Cell Carcinoma: A Clinical Case of Younger Adults

It was noted that this type of cancer was more aggressive in nature, with a greater chance of mortality, a higher incidence of local recurrence, or involvement of regional lymph nodes after treatment.[7]

Drugs containing phenol, alcohol, betel quid, radiation exposure, iron, and vitamins Genetic predisposition, immunosuppression, oncogenic viruses (HPV and EBV), candididial infection, environmental and occupational variables, syphilis, and nutritional inadequacies are risk factors linked to tobacco use.[8] It has been shown that alcohol and tobacco use not only increase the risk of oral cancer but also significantly impact patient outcomes such as morbidity, death, recurrence, and formation of a second primary tumor. Studies have looked into a number of clinical types of oral SCC. Leukoplakia, erythroplakia, or leukoplakia with verrucous growth might be its appearances.[9]

4.1. Clinical features

A painless lump or ulcer is the most common early sign of tongue cancer, although most patients ultimately suffer discomfort from the lesion, especially if it develops secondary infections. The tumour may first appear as a superficially indurated ulcer with slightly elevated margins, and it may subsequently either penetrate the deep layers of the tongue, causing fixation and induration with few surface modifications, or develop into an exophytic mass with fungal growth. The typical lesion is located on the ventral surface or lateral border of the tongue.In the extremely unusual case that tongue dorsum develops cancer. Metastases occur often in cases with tongue cancer. The metastatic lesions may be ipsilateral, contralateral, bilateral, or ipsilateral in relation to the tongue lesion due to the cross-lymphatic outflow.[10]

Oral squamous cell carcinoma (OSCC) is the most common kind of mouth cancer, accounting for 95% of

occurrences. Among other kinds, it may manifest as ulcerative, red, white, red-white, exophytic, or red lesions in the oral cavity. Other regions that are often affected include the floor of the mouth, the lower lip, and the ventral and lateral edges of the tongue. The most common site of occurrence is the buccal mucosa. The above findings are consistent with our findings.(Table 1).

An uncomfortable, long-lasting ulcer with induration and infiltration of deeper oral tissues is the hallmark look of OSCC in the buccal mucosa. Since ulcerative SCC causes local damage, early and accurate diagnosis is essential to improve patient prognosis and survival rates. Treatment options for OSCC include radiation, chemotherapy, surgery, or a mix of these.

The healthcare professional will obtain a thorough medical history, including any symptoms the patient is having, tobacco and alcohol usage, and any previous oral health difficulties.

A biopsy is performed if an aberration is found during the clinical assessment. A little sample of tissue is taken from the problematic oral region in order to perform a biopsy. The tissue sample is then sent to a pathology lab, where a pathologist examines it under a microscope to look for malignant cells.The kind and grade of cancer can also be determined with the use of a biopsy.

It is possible to organize imaging examinations, such as X-rays, PET (positron emission tomography), MRI (magnetic resonance imaging), or CT (computed tomography).

Early identification and treatment are critical for improving the results of oral squamous cell carcinoma. Regular dental checkups and self-examination of the mouth can aid in early detection. If any suspicious signs or lesions are discovered, immediate contact of an health care expert is required.

5. Conclusion

In conclusion, a combination of clinical examination, imaging investigations, and biopsy is used to diagnose oral squamous cell carcinoma (OSCC). The oral cavity is thoroughly examined by a dentist or oral and maxillofacial surgeon to find any abnormal growths, lesions, or symptoms. Imaging studies to visualize the extent and spread of the tumor include CT, MRI, PET, and X-rays.

If a suspicious lesion is found, a biopsy is performed to determine the cancer's type and grade. Staging is then conducted to determine the cancer's stage and guide treatment decisions. A multidisciplinary team develops a personalized treatment plan, including surgery, radiation therapy, chemotherapy, targeted therapy, or a combination of these modalities.

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7. Conflict of Interest

None.

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Author's biography

Donna T Angela, Intern

M Shanthi, Assistant Professor

VC Divya, Associate Professor

C Ganesh, Associate Professor

Divya Deepika, Intern

Hamsavardini, Intern

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