

A CASE OF ORAL CANCER TREATED WITH SURGERY AND PROSTHETIC OBTURATOR PLACEMENT: A CASE REPORT

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ABSTRACT

The most common carcinoma affecting the oral mucosa is oral squamous cell carcinoma, with prevalence seen in the age groups above 50 years in males and with rare occurrence below 30 years. Studies reveal approximately 30-40 % of deaths in oral squamous cell carcinoma occur due to various tissue abuse habits. The present case defines a classic incident of oral squamous cell carcinoma concerning the alveolo-buccal sulcus in a female having 52 years of age.

INTRODUCTION

Approximately 94% of all oral malignancies are Squamous cell carcinoma (SCC). The annual incidence and mortality rates vary between different races, genders, and age groups.

Like other carcinomas, the risk of intra oral carcinoma increases with increasing age especially for males. Persons with oral SCC almost have been aware of an alteration in that site for 4-8 months before seeking professional help. There is minimal pain during the early growth phase and this may explain the delay in seeking professional care.

If the health care professional does not have a high index of suspicion, additional several weeks or months may elapse before a biopsy is performed.

Oral SCC has various clinical presentations such as exophytic, endophytic, leukoplakic and erythroplakic, which all of them show visible changes in the surface.

The maximum prevalent threat for the occurrence of oral SCC is due to the habit of tobacco or betel intake, ingestion of intoxicating drinks, and contamination with human papilloma virus (HPV) having high-risk factors. Also a nutrition comprising of inadequate fresh fruits and vegetables was reported in OSCC patients.

CASE

A female patient of age 52 years came with a history of pain in the left side maxillary front and back tooth region for 45 days. The patient had no comorbidities and is not under any medication. The patient had a habit of pan and khaini chewing 10-15/day for 20 years and has left the habit since 4-5 years.

Intraoral examination showed localized growth present in the left upper region on the alveolar ridge with relation to 25, measuring 3*3 cm approximately having irregular borders. On palpation, the tumour was soft in consistency, non-pedunculated, tender on palpation which bleeds on probing with slight obliteration of gingivo-buccal sulcus.

Hence a provisional diagnosis of squamous cell carcinoma was given along with differential finding of epulis, pyogenic granuloma and peripheral giant cell granuloma. Skin over the swelling was warm to touch and was non-pinchable.

Left submandibular lymph node measuring 1x1 cm was palpable which is tender on palpation and fixed to the underlying structures. A single, ulceroproliferative growth present in the left gingivobuccal sulcus with relation to 24,25,26,27 region, measuring 3x3cm in size having irregular margins and erythematous in appearance with no secondary changes present.

On palpation, growth was firm to touch, having indurated margins and remained tender on palpation with obliteration of gingivo-buccal sulcus with relation to 24-27 regions. The patient was further advised to do radiographic investigations.

Correlating the clinical features, radiographic findings a provisional diagnosis of Malignant ulceroproliferative lesion was presented. Further incisional biopsy of the lesion was done under local anesthesia and was submitted for histopathological examination. Histopathology revealed well differentiated stratified squamous cell carcinoma.



She underwent surgery : Infrastructural maxillectomy with neck dissection and the intraoral defect was kept open with packing in situ. Her postoperative recovery was satisfactory and was discharged after 1 week.



On 10th Postop day she was evaluated for intraoral prosthetic Obturator placement. She was given customised obturator for intraoral defect on 14th day.



Placement of obturator is a fantastic alternative to Maxillary surgeries since it doesn't require plastic reconstruction, it is cheap and can be suitably customised according to the patient with placement of artificial teeth.

DISCUSSION

OSCC is a growing concern worldwide. Only 6% of OSCC cases are evident in people aged under 40 years. Young patients with OSCC are arbitrary. The average instances of young OSCC bearers in the literature range from 30.8 to 34.2, with a greater male predilection. Clinical

manifestation of SCC in young patients has no distinguishing features from that of the older; nevertheless, literature reports that many clinicians tend not to include SCC as a diagnostic hypothesis in young patients, simply because such disease is not compatible to age range. Due to the increased exposure to carcinogenic chemicals, including alcohol and tobacco, as was in this case, a small number of studies had also demonstrated a female propensity for OSCC.

The primary risk factor for OSCC is believed to be tobacco use, both now and in the past. Large OSCC lesions can infiltrate multiple, continuous locations. Tongue and the buccal mucosa are the two most common locations for OSCC. OSCC in males is predominantly poorly and moderately differentiated, while in females, it is primarily well and moderately differentiated, as observed in this case. According to an epidemiological study of OSCC conducted in India oral cancer is more common in younger men and women.

Oral keratinocytes are precursor cells of OSCC, and xenobiotic metabolizing enzymes (XME) influence the metabolism of chemicals that cause cancer. The primary cause is DNA mutation, which is worsened by exposure to chemical, physical, or microbial mutagens. Clinically, OSCC presents as a broad-based exophytic mass with a verrucous, pebble-like, or generally smooth surface texture. It can also resemble verrucous leukoplakia or erythroleukoplakia and eventually develop into a necrotic ulcer with irregular, elevated, and indurated borders. With secondary infection, OSCC bleeds easily and becomes painful, as observed in this case. The staging of TNM correlates with the survival rate. Other treatment options for OSCC include photodynamic therapy, nanocarrier-based medication delivery technology, surgical removal, and radiation therapy.

CONCLUSION

Oral SCC continues to be a life-threatening disease worldwide. Oral SCC arises from within a field of pre cancerized epithelium either from a pre-existing potentially malignant lesion, or de novo. The use of tobacco and betel quid, heavy drinking of alcoholic beverages and a diet low in fresh fruits and vegetables are the major risk factors for oral SCC. The early detection and diagnosis of human cancers remain key to reducing cancer-associated mortality.

REFERENCES

1. Silverman S Jr. *Oral Cancer*. 5th ed. Hamilton, Ont, Canada: B. C. Decker Incorporated; 2003. Vol 1
2. Scully C. Rule for cancer diagnosis. *Br Dent J*. 2013 Sep. 215(6):265-6.
3. Petti S, Scully C. Oral cancer: the association between nation-based alcohol-drinking profiles and oral cancer mortality. *Oral Oncol*. 2005 Sep. 41(8):828-34.
4. Warnakulasuriya S. Smokeless tobacco and oral cancer. *Oral Dis*. 2004
5. Capparuccia L, Tamagnone L: Semaphorin signaling in cancer cells and in cells of the tumor microenvironment--two sides of a coin. *J Cell Sci*. 2009;122(Pt 11):1723–36. 10.1242/jcs.030197
6. Joshi P, Dutta S, Chaturvedi P, et al.: Head and neck cancers in developing countries. *Rambam Maimonides Med J*. 2014.
7. Tandon P, Dadhich A, Saluja H, et al.: The prevalence of squamous cell carcinoma in different sites of oral cavity at our Rural Health Care Centre in Loni, Maharashtra - a retrospective 10-year study. *Contemp Oncol (Pozn)*. 2017;21(2):178–183. 10.5114/wo.2017.68628
8. Muttagi SS, Chaturvedi P, Gaikwad R, et al.: Head and neck squamous cell carcinoma in chronic areca nut chewing Indian women: Case series and review of literature. *Indian J Med Paediatr Oncol*. 2012;33(1):32–5. 10.4103/0971-5851.96966.
9. Krishna A, Singh S, Kumar V, et al.: Molecular concept in human oral cancer. *Natl J Maxillofacial Surg*. 2015;6(1):9–15. 10.4103/0975-5950.168235
10. Sharma A, Kim JW, Paeng JY: Clinical analysis of neck node metastasis in oral cavity cancer. *J Korean Assoc Oral Maxillofac Surg*. 2018;44(6):282–288. 10.5125/jkaoms.2018.44.6.282.