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Case Report

Advanced Oral Squamous Cell Carcinoma: A Case Report

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Abstract

Introduction- Oral cancer is the sixth most common cancer globally with a wide geographic variation. In India, there is a trend towards increasing incidence and delayed presentation of oral cancer as approximately 50% patients present at stage III or IV where the lower socioeconomic strata of society play a vital role.

Presentation of Case A 35 years' male reported with the complaint of rapidly increasing ulcer in mandible. Extraoral examination revealed presence of hard nodular swelling with orocutaneous perforation while on Intraoral examination an ulcero-infiltrative, indurated lesion was present. The diagnosis was confirmed by histopathopathological examination after radiographic evaluation.

Conclusion- Despite an improvement in diagnostic and management techniques, the age-standardized mortality rates in oral cancer are constant. This article describes a case of advanced oral squamous cell carcinoma occurring at early age with an emphasis on clinical aspects of squamous cell carcinoma.

Keywords: OSCC; Symptoms; Diagnostic delay

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Introduction

In oral cancers, more than 90% are squamous cell carcinoma (OSCC) while the remaining 10% are mainly melanomas, sarcomas, minor salivary gland carcinomas and metastatic cancers[1].OSCC is asymptomatic in early stage but it is known to produce high morbidity and mortality because of either the tumor itself or of the treatment in advanced stage. Even though the frequent clinical presentation of OSCC is a painless rapidly increasing growth or a non-healing ulcer it may occur in various clinical forms [2]. This article focuses mainly on clinical presentation and diagnostic delay in OSCCs.

Case Presentation

A 35 years' male had reported with the complaint of non-healing ulcer in mandibular posterior region of jaw for 4 months. Patient was apparently alright 4 months back. But, one fine morning he had experienced discomfort in lower left posterior region of jaw for which he had performed self oral inspection and noticed an ulcer in same region. In duration of a month, he had noticed a painless extraoral swelling on left side of mandible as well as mobility of the teeth in same region. He had reported to the physician at his town place but he didn't get relief with the medications prescribed. The intraoral ulcer increased rapidly and involved whole buccal mucosa of left side as well as extraoral swelling ulcerate at two places. There was history of bleeding from the ulcer and pus discharge from extraoral swelling and there was paresthesia in associated area. He also gave history of exfoliation of two teeth from lower left posterior region of jaw approximately a month back. He had a habit of keeping 'Kharra' in lower left buccal vestibule continuously during day time in the past 15 years.

Figure 1 Swelling on left side of mandible with orocutaneous perforations
Figure 2 An ulcero-infiltrative lesion involving buccal mucosa and buccal vestibule on left side

Figure 3 Orthopantomograph showing destructive radiolucent bony lesion on left side of mandible

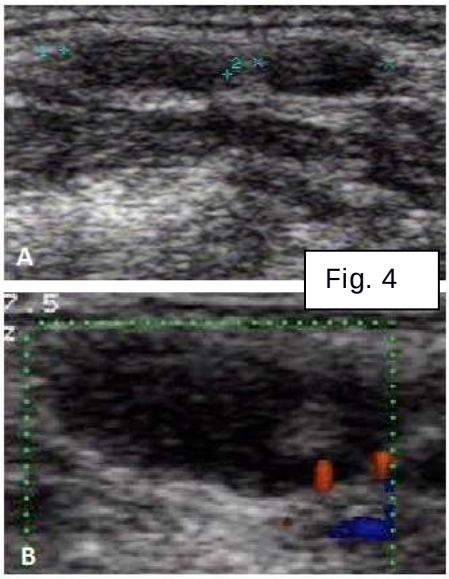

Fig. 4

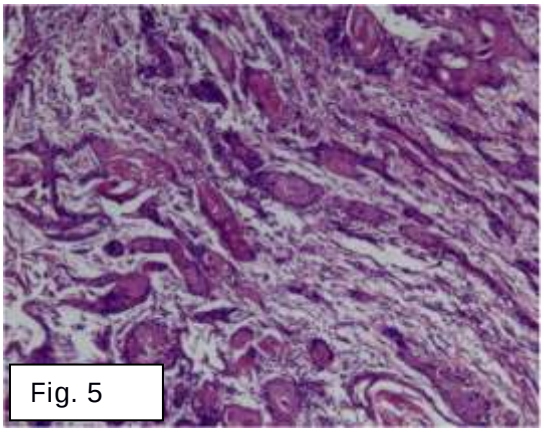

Fig. 5

Figure 4A showing multiple enlarged lymphnodes, **B** large lymph node with peripheral vascularity
Figure 5 Photomicrograph (10X) showing neoplastic epithelial cells and keratin pearl

On extraoral examination there was a presence of hard, tender, nodular swelling on left side of mandible. Surface showed ulcerations suggestive of orocutaneous perforation and evidence of bleeding on manipulation. Figure 1. Intraoral examination revealed ulcero-infiltrative, tender and indurated lesion involving left buccal mucosa, vestibule and alveolus. Figure 2. Teeth in vicinity were also mobile. Lymph node examination revealed enlarged multiple lymph nodes on left side belonging to submandbular, submental and upper cervical groups. Single submandibular lymph node was palpable on right side also. All the nodes were greater than 1 cm in size, firm, non-tender and mobile except one left submandibular node which was of 2X2 cm, fixed and hard in consistency. The diagnosis was malignancy involving buccal mucosa, buccal vestibule, gingiva and alveolus on left side. (TNM staging– T4 N2cM0). His orthopantomograph depicted presence of a large, ill defined, destructive, radiolucent bony lesion with floating tooth appearance of 35 and 36 as shown in Figure 3.

The patient was further investigated for presence of local and distant metastases by performing ultrasonography, color Doppler ultrasonography and chest radiograph respectively. Ultrasonography depicted multiple lymph nodes (Figure 4–A) and color Doppler ultrasonography depicted large lymph node with peripheral vascularity (Figure 4–B). Histopathological confirmation and grading of the disease was done by performing incisional biopsy. He was treated by doing wide local excision of a lesion, hemi-mandibulectomy and neck dissection followed by reconstruction and plastic surgery. The skin graft, tissue flap was used to restore tissues removed from the surgical site. H and E stained tissue section from surgical specimen showed presence of neoplastic epithelial cells in the outer connective tissue capsule. The inner stroma also showed presence of neoplastic epithelial cells arranged in the form of sheets along with keratin pearl formation, features were diagnostic of moderately differentiated squamous cell carcinoma. Figure 5 The treatment protocol decided by Tumor Board was a combination of surgery and radiotherapy. He was treated by wide local excision of a lesion with hemi-mandibulectomy and modified neck dissection. The patient was then referred to Radiolotherapy centre but further he lost follow up.

Discussion

Oral cancer is a disease of increasing age, with an average age at diagnosis is about 60 years [3]. Few previous studies reported OSCC in younger age group, especially in high incidence countries such as India, Pakistan and Sri Lanka [4, 5]. Our patient is also less than 40 years of age.

The diagnosis of early OSCC with a presentation of just a white lesion, red lesion, in-situ or microinvasive carcinoma represents a real challenge for oral diagnostician. Oral diagnostician should be aware about the initial carcinomatous changes that may take place in premalignant lesion, as they do not respond to local treatments.

In central India, the common site for occurrence of OSCC is gingivobuccal vestibule. But in Western countries tongue is the commonest site. These site wise differences in the incidence of oral cancer between Western countries and India may be due to difference in the habit of tobacco usage. Tobacco smoking (cigarette) is more prevalent in Western countries while tobacco chewing, smoking (bidi) and snuffing along with other ingredients like betel nut, Gutkha, lime, catechu etc. are the most prevalent habits in India. Due to these major etiological factors and increasing incidence rate it is suggested that oral cancer in India should be considered as a "new epidemic"[2].

In most cases, OSCC are asymptomatic, pain appears only when muscles or nerves are invaded at advanced stages of the disease [6]. However, the common symptoms in OSCC are a painless growth, painless ulcer, loosening of teeth, exfoliation of teeth, discomfort, difficulty in swallowing etc. Various clinical presentations of OSCC are a white lesion, red lesion, mixed lesion (combination of red and white), vegetans, verrucous, and mixed forms such as ulcerous-vegetans or verrucose- ulcers [2].

The deadliest aspect of oral cancer (OSCC) like any other cancers is its ability to spread, or metastasize. In OSCC, tumor dissemination occurs via regional lymphatic to cervical lymph node in a predictable and sequential fashion. About two-thirds of oral SCC are already of substantial size, and will have clinically detectable metastases to cervical lymphnodes at the time of diagnosis [7]. The patients with metastasis need more-aggressive treatments. It is therefore important to assess as reliably as possible whether a patient has metastases or not.

Early diagnosis is a foremost step for reducing cancer mortality, but approximately 50% cases are diagnosed at late stage either due to ignorance or inaccessibility of medical care. The diagnostic delay in OSCC can be delay on patient side termed as Patient delay or Primary delay and/ or delay by a physician referred as Professional delay or seconadary delay. If delay by both the parties then considered as a total delay that has happened in the present case. The period to consider as delay in receiving treatment ranges from 21 days to three months according to various studies [8]. Thus, a step to avoid delay is to improve knowledge, attitude and awareness of the patient and the professional.

Conclusion

Oral physician can reduce oral cancer related morbidity and mortality by diagnosing an early stage oral cancer. But, to achieve this goal, they should have in depth knowledge about the clinical aspects of oral cancer.

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