

Case Report

Multimodal Management Of Oral Carcinoma: A Case Report

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ABSTRACT

Cancer that develops between the red line on the lips and the point where the hard and soft palate meet, or the back part of the tongue, is referred to as oral cancer. More than 95% of patients with oral squamous cell carcinoma (OSCC) either use alcohol or use tobacco-based products, or areca nut. Early detection through screening is an appropriate intervention to prevent this deadly disease because treatable lesions are rarely symptomatic. Radiotherapy, surgery, chemotherapy or combination any of these three can be used as a form of treatment; however, surgery is typically proven to be the most effective aid in treating cancers of the oral and maxillofacial complex. This case report focuses on a 67-year-old male patient diagnosed with carcinoma of the right buccal mucosa, emphasizing the importance of early detection and a multidisciplinary treatment approach.

KEYWORDS: OralSquamous cell carcinoma, radiotherapy, mandible, case report, neck dissection.

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INTRODUCTION

Oral cancer, particularly squamous cell carcinoma, pose a significant health burden worldwide. Most of the oral and oropharyngeal cancer cases occur in elderly male patients, with tonsils and tongue being the most commonly affected sites. The most common sites for the presentation of oral cancer are the tongue (ventral-lateral edge, 40% of cases), floor of the mouth (30% of cases) and lower lip. OSCC accounts for more than 90% of malignancies in the oral cavity. The mucosa, or lining of the oral cavity, is composed of squamous cells. As oral cancer progresses, it has the potential to invade adjacent tissues. This deadly disease has various clinical presentations such as

exophytic, endophytic, leukoplakic and erythroplakic, which all of them show visible changes in the surface¹. As per epidemiological records, approximately 706 000 new cases and 358 000 deaths were reported in 2018 globally for head and neck cancer.² Oral cavity cancer (OCC) is more commonly observed in individuals over the age of 40 compared to younger people. Globally, OCC has a higher prevalence in males, with a rate of 5.8 per 100,000, compared to females, who have a prevalence of 2.3 per 100,000.³The treatment of oral cancer is challenging since most of the patients are presented with advanced disease and low survival rate. The management can be initiated through the

multidisciplinary approach after thorough clinical, radiological and histopathological examination. The national comprehensive cancer network (NCCN) provides evidence-based guidelines for the management of oral cancer.⁴

CASE REPORT

A 67-year-old male patient reported with the complains of pain and swelling in the lower right back tooth region for the past one month which is insidious in onset and gradually progressive. Patient had a history of tobacco and betel nut chewing and alcoholic habit for the past 20 years. Patient had no significant medical history and his general examination was non-contributory. On extra oral examination, evidence of single diffuse swelling in the right mandible region which roughly measures around 4x3 cm. On palpation the swelling was firm in consistency and tender (Figure 1). The lymph node examination reveals, evidence of single, palpable right submandibular lymph nodes measuring more than 2cm in diameter, tender and mobile. Further evidence of palpable tender and freely mobile right upper jugular lymph nodes measuring more than 2 cm in diameter. Mouth opening was found to be restricted and found to be 10 mm. On intraoral examination, evidence of single sessile ulceroproliferative growth involving the right alveolar mucosal region of 46,47,48 measuring approximately 2x3 cm. On palpation, the lesion was tender & indurated to the underlying tissues. The surface over the growth appears irregular & erythematous (Figure 2). Patient further advised for orthopantomography which reveals that complete loss of coronal structure in the 46 region. Evidence of horizontal bone loss with bone erosion involving the 46,47,48 region which gives the floating tooth appearance (Figure 3). Further patient advised for Contrast CT head and neck which revealed relatively well defined homogeneously enhancing lesion of size approximating 4.7x 3.9 x 2.9

cm involving the mandibular buccal mucosa on right side. The lesion extends superolaterally upto the mid portion of the mandible with involvement of masseter muscle in masticator space. Inferiorly the lesion extends up to the region of 1st molar tooth of mandible with associated bony erosion. Medially the lesion extends retromolar trigone extending up to lateral border of tongue. The right submandibular gland appears bulky with multiple hyper enhancing lymph nodes noted, largest measuring approximately 9.5mm. The vascular markings are noted within the submandibular gland. Few enhancing lymph nodes also noted at bilateral level II and right level V, largest measuring approximating 5.5 mm in short axis on right side (Figure 4).

After the routine blood investigation screening patient underwent incisional biopsy which revealed well differentiated squamous cell carcinoma of buccal mucosa.

MULTIMODAL MANAGEMENT

Patient managed with surgical treatment primarily which was the hemimandibulectomy with flap placed over the right-side buccal mucosa. Selective neck dissection to remove the suspicious metastatic lymph nodes (Figure 5). Then Postoperative adjuvant radiation therapy was initiated to ensure complete eradication of residual tumor cells and minimize the risk of local recurrence. The patient was strongly advised to quit smoking and limit alcohol consumption. Supportive care measures, including nutritional support and pain management, were implemented.

Follow up

Regular follow-up appointments were scheduled to monitor the patient's progress and assess for recurrence. The initial postoperative period was uneventful, and the patient exhibited favorable recovery (Figure 6).



Figure 1 Extraoral profile of the patient showing facial asymmetry with swelling on the right mandible region



Figure 2 Intraoral picture revealing the ulceroproliferative growth in the right buccal mucosa and alveolus part.



Figure 3 Orthopantomogram X-ray of the patient, which revealed erosive changes in the right mandible region in the crestal region.

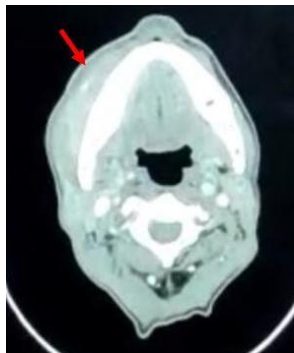


Figure 4 AXIAL view of the CT scan of the patient, which revealed homogeneously enhancing ill defined lesion involving the right buccal mucosa .



Figure 5 intraoperative picture showing dissected specimen and flap coverage



Figure: 6 Postoperative picture of the extraoral and the intraoral site

DISCUSSION

This case underscores the need for a comprehensive and individualized treatment plan for oral cancer. Surgical intervention, coupled with adjuvant therapies, aims to achieve optimal oncological outcomes. Addressing lifestyle factors such as smoking is integral to long-term success.⁵ According to the current findings in oral cancer epidemiology, males are primarily affected by OSCC, with male to female ratios varying from 6:1 to 2:1 in recent research.⁶ A number of other recent studies have revealed a higher proportion of affected females, with a mean male: female ratio less than 2:1.⁷ These findings are likely the result of altered social and everyday activities related to the contemporary way of life and social profile of women, which increases exposure to biological agents like high-risk HPV subtypes and carcinogenic agents like alcohol and tobacco use.⁸ When it comes to gender, age, and site predilection, oral potentially malignant disorders (OPMD) are comparable to ovarian cancer (OSCC), with a global prevalence ranging from 1 to 5%.⁹ While the precise rate of malignant transformation in OPMD remains uncertain, it is anticipated that leukoerythroplakic regions will occasionally be found in conjunction with OSCC. Large lesions can penetrate multiple continuous sections of the oral mucosa, and OSCC can impact any place within the mucosa.¹⁰

CONCLUSION

The successful management of carcinoma of the right buccal mucosa in this case emphasizes the importance of a coordinated, multidisciplinary approach. Long-term outcomes should be closely monitored, and ongoing research is essential to further refine treatment strategies for oral cancers.

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