Central Arch Commando, A Catholicon For Tongue Carcinoma In Decrepit Patient- A Case Report

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Abstract

Squamous cell carcinoma is the most frequently occurring malignant neoplasm of the oral cavity, common amongst tobacco and alcohol consumers, affecting individuals over 50 years of age. Various treatment modalities consist of chemotherapy, radiotherapy, surgery or a combination of the above. A case report of squamous cell carcinoma involving the tongue and the floor of mouth, with no deleterious habits, treated with central arch commando operation followed by reconstruction with pectoralis major myocutaneous flap and deltopectoral flap is presented.

Key words- Squamous cell carcinoma, tongue, floor of mouth, neoplasm, chemotherapy, radiotherapy.

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INTRODUCTION

Carcinomas are the second most common cause of morbidity and mortality in the world today after cardiovascular problems.¹ In India, Oral cavity is one of the leading sites of cancer, in either gender; amongst that SCC is the most common neoplasm. Oral cancer is the eleventh most common cancer globally.² Squamous cell carcinoma is defined as “a malignant epithelial neoplasm exhibiting squamous differentiation as characterized by the formation of keratin pearls and/or presence of intercellular bridges” (Pindborg et al 1977). It represents more than 90% of all the Head and Neck carcinomas and affects mostly adult males, predominantly alcohol and tobacco users, between the ⁶ᵗʰ and ⁷ᵗʰ decades of life. The most affected sites in decreasing order are the tongue, oropharynx, lip, floor of mouth, gingiva, hard palate and buccal mucosa.³⁴⁵⁶⁷ Carcinomas on tongue and floor of the mouth are considered to have worst prognosis. The poor prognosis of these lesions were attributed to their advanced stages at the time of diagnosis. Most floor of the mouth (FOM) carcinomas commence within 2 cm of the anterior midline with appendages toward the gingiva and periosteum of the mandible cropping up even in early lesions. Treatment of SCC mainly consists of chemotherapy, radiotherapy, surgery, or a combination of the above modalities.³⁸⁹ A case of SCC of tongue and floor of the mouth in 60 year old patient is presented. The case was treated with Central arch commando operation followed by reconstruction with Pectoralis major myocutaneous flap (PMMC) and Deltopectoral flap.

CASE REPORT
A 60 yrs old male patient reported in outpatient clinic of Prince Bijay Singh Memorial Hospital, Rajasthan in January 2015 with the chief complaint of swelling on left side of neck and associated pain since 3 months. The swelling was initially slow growing but after taking chemotherapy, it started increasing in size with pain radiating to the entire lower jaw. There was also symptoms of difficulty in swallowing but no difficulty in breathing. Patient denied any history of alcohol consumption or any other harmful habits. Extraoral examination revealed cervical lymphadenopathy with 4X3 cm fungating, exophytic mass at right level Ib and 4X3 cm neck node which is palpable, tender, fixed, hard, erythematous in nature. (Fig 1) Intraoral examination revealed an ulcerative growth involving the lower alveolus extending from the floor of the mouth and reaching up to left lower gingivobuccal sulcus. Second primary lesion was also present on right lower gingivobuccal sulcus with marked trismus. Biopsy was performed under local anaesthesia and histopathological examination revealed moderately differentiated squamous cell carcinoma of tongue and floor of the mouth. CECT scan was advised to confirm the extent of the lesion. The scan confirmed large ill defined heterogeneously enhancing soft tissue density mass involving the left lower alveolus, floor of the mouth with signs of malignancy. There was erosion of underlying mandible bone and medially the lesion is abutting tongue. The neoplasm was classified as T2N2bM0 (Stage 4) based on mouth cancer TNM classification criteria of UICC/AJC (American Joint Committee for Cancer Staging) where T2 indicates tumour more than 2 cm but less than 4 cm in its greatest dimension, N2b denotes metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension and M0 denotes no distant metastasis. Preanaesthetic evaluation was done and surgery was planned under general anaesthesia. Central arch commando (combined mandiblectomy and neck dissection operation) was performed with partial glossectomy. Neck dissections of level 1-4 on right side and type 2 modified neck dissection (Internal jugular vein and spinal accessory nerve preserving) of left side was carried out. (Fig 2,3) Due to extent of the resection, double flap reconstruction was carried out with PMMC flap and Deltopectoral flap. (Fig 4) A full thickness skin graft from extensor surface of right thigh was used to cover the donor site. (Fig 5) Tracheostomy for assisted ventilation and feeding gastrostomy was done to provide nutritional support to the patient. (Fig 6) This was followed by followed radiotherapy. (Fig 7) Suture was removed after 10 days and the patient was discharged after 15 days. Follow up was done till 3 months.
Carcinoma of the floor of the mouth accounts for 28-35% of all oral cancers. Oral carcinomas are more common in India than in western populations, which may be due to variation in the culture and habits. It is more common in males than in females. Though many reasons are responsible for the causation, in which tobacco and alcohol consumption top the list. They act synergistically in the causation of carcinoma. The vulnerability to the effect of irritants varies amongst the population which may be genetic, familial or acquired. It usually begins as an asymptomatic nodular or ulcerative lesion which in most cases are overlooked because of its painless nature and hidden location. Hence the patient presents himself during the advanced stages of the disease. Histopathologically, SCC is divided into 3 grades depending on the degree to which the tumor resembles the parent tissue and produces keratin. They are categorized as well-differentiated, moderately-differentiated and poorly differentiated. A well-differentiated tumor is mature enough to closely resemble its tissue of origin, grows at a slightly slower pace and metastasizes later in its course. The rate of regional cervical metastasis associated with carcinoma is high with 30% of patients having clinically positive nodes. The incidence of conversion of clinically negative neck nodes to positive neck nodes without neck treatment varies from 20% to 35%. The first nodes to get involved are submandibular and subdiagastric nodes. Because of the rich lymphatic network of the tongue and floor of the mouth, the risk of development of lymph node metastases in these particular sites varies between 6% and 46%, even in early stages.
away from the midline present a low risk of contralateral metastases (7%), which was also concomitant with our case. In cases of lesions crossing the midline by less than 1 cm, the risk increases to 16% and reaches 46% in those where the crossing is more than 1 cm. Multidisciplinary approach followed in the treatment of SCC of Head And Neck is complex and evolving. In the beginning of the Era, radiotherapy alone was considered as the standard approach in the treatment for locoregionally advanced resectable cases but now a day’s chemotherapy is increasingly being incorporated in the treatment of SCC. Radiotherapy alone is not the preferred treatment of choice if the lesion occurs in proximity to mandible because of risks of soft tissue and bone necrosis in addition to severe xerostomia. Even for advanced tumors, preoperative radiation therapy is not recommended because of risk of pathological fracture or osteoradionecrosis. It has been demonstrated that adding chemotherapy to radiotherapy, in both definitive and adjuvant preoperative settings, resulted in 12% reduction in the risk of death from SCC of head and neck but chemotherapy alone causes high risk of cancer recurrence and regional nodal metastasis. Many patients even also complaint of mouth sores. This was also true in our case, in which the patient came back with recurrence of the lesion and regional nodal metastasis after taking chemotherapy alone. Some authors preferred concurrent chemoradiotherapy followed by surgery for completion of the treatment, for improved organ preservation but in our case initially the patient was not ready for radiotherapy and surgery.

Small carcinomas of the floor of the mouth can be treated with Radiotherapy or surgery with the cure rates of 70-95%. Larger lesions require surgical intervention with reconstruction flaps. As there is associated invasion and infiltration of tumor into suprathyroid musculature or tongue, surgery with marginal or segmental mandibulectomy and partial or subtotal glossectomy, combined with radiation therapy should be the primary treatment of choice. The feasibility of marginal mandibulectomy depends on the vertical height of mandibular body.

CONCLUSION
As squamous cell carcinoma is the most frequently occurring neoplasm in oral cavity, complete enucleation of the lesion followed by chemoradiotherapy should be the treatment of choice for early stages of SCC to prevent recurrence of the lesion.

REFERENCES
19. Neoadjuvant chemotherapy or chemoradiotherapy in head and neck cancer Preetesh Jain, Prabhash Kumar, Vasanth Raghuvir Pai, Purvish Mahendra Parikh

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