



## **Case Report on Squamous Cell Carcinoma of the Lip**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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**Case Study**

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### **ABSTRACT**

**Introduction:** Lip cancers are the most prevalent oral-maxillary malignancy. Lip cancer can be caused by a number of things, including smoking, exposure to ultraviolet (UV) rays, and drinking alcohol [1] In this article we report a case of lower lip squamous cell carcinoma in a 59 year old male patient who smoked heavily and had a history of direct sun exposure, and uv rays. His case report is important attributable to recurrent axillary metastases occurred after subsequent treatment.

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**Clinical Findings:** The patient chief complaint is burning sensation on consumption of hot & spicy food since 3 months, apraxia, difficulty in mastication since 2 months approximately & nerve parenthesis in lower lip.

**Diagnostic Evaluation:** Hemoglobin (HB) -13.2gm, mch-27.9fl, mchc-33.3%, Total red blood cell (RBC) count-4.72million/cu.mm Rdw- 12.7%, Total white blood cell (WBC) count- 16500cu.mm, Monocytes -4%, Granulocytes- 85%, Lymphocytes -10%, Eosinophils-2%, Basophils-0%, Total platelet count-2.68 cu. mm.

**Histopathology report:** A multiple, irregular, reddish, brownish tissue pieces aggregating 1x1cm. selection from given tissue piece shows histopathological features are suggestive of well differentiated squamous cell carcinoma. Therapeutic Intervention: post-chemo hydration, post-chemo drugs, BEP Chemotherapy (Bleomycin, Etoposide, Cisplatin).

**Summary and Conclusions:** The patient who was a 59 years old male was admitted to the oral surgery ward. The patient was diagnosed as having squamous cell carcinoma of the lip and he had complained of having burning sensation on consumption of hot & spicy food over the preceding 3 months, apraxia and difficulty in mastication, over a period of about 2 months, and nerve paresthesia within his lower lip. He underwent mandibulectomy with excision of the tumour. Following radical mandibulectomy and adjuvant chemotherapy and radiotherapy, the patient has remained well with no evidence of metastasis at his 4 months follow-up based upon clinical assessment and radiology imaging which does illustrate that radical surgery, plus chemo-radiation for locally advanced squamous cell carcinoma has been shown to be associated with a good short-term outcome and after further follow-up assessments, the long-term outcome of radical surgery and adjuvant chemotherapy would be known.

**Keywords:** Squamous cell; lymph nodes; metastases. Lip; Mandibulectomy; chemotherapy; radiotherapy, histopathology; ultrasound-scan; CECT scan.

## 1. INTRODUCTION

Squamous cell carcinoma (SCC) of lower lip constitutes over 25th of all oral cancers. SCC patients do tend to undergo surgical treatment that involves excision of tumor, lymph node dissection, and reconstruction [2]. The most common type of oral cancer is squamous cell carcinoma of the lower lip (SCC) [3]. Individuals who have a higher risk of developing lip SCC include the following: Over 45-year-old male patients having a history of prolonged exposure to the sun, tobacco use, and alcohol consumption according to a previous comprehensive study of SCC. SCC of the lip is a dominant type of lip cancer among men who are aged over 53 and who have been exposed to ultraviolet (UV) rays [4].

Oral squamous cell carcinoma (OSCC) detection in early stage will help to improve survival rate and will reduce mortality rate [5].

Distant metastases play a critical role in the treatment and prognosis of oral cancer patients. With regard to distant metastases of oral cancers, it is worth noting that the most typical primary site is the lip which accounts for 60% of cases, followed by the base of the tongue which accounts for 53% of cases and therefore the

anterior tongue constitutes a higher proportion of the tumours [6].

We report the case of metastases of lower lip squamous cell carcinoma to the axillary lymph nodes in this case report, which is a rare metastases location for the development of metastasis with an aim to contribute to the literature related squamous cell carcinoma of the lip which has previously been reported [7].

## 2. PATIENT IDENTIFICATION

A 59 years male old from Ballarpur, from Chandrapur district was admitted to the oral surgery ward on 1<sup>st</sup> June 2021 who was diagnosed as a case of squamous cell carcinoma of the lip. He weighed 58 kilograms (Kgs) and he had a height of 160 cm.

### 2.1 Present Medical History

A 59 years-old man was brought to AVBRH on 1st June 2021 who had presented with complaints of burning sensation on consumption of hot & spicy food over the preceding 3 months, apraxia with difficulty in mastication over nearly the preceding 2 months as well as nerve parenthesis within his lower lip. He was admitted to the oral surgery department. He is a case of

squamous cell carcinoma and his haemoglobin level at the time of admission was 11gm%. On his lower lip, there was an ulcerative lesion. Following examination of his head and neck, a biopsy of his lip lesion was scheduled.

## 2.2 Past Medical History

My patient was apparently alright 2-3 month back when he noticed a pain non healing ulcer over lower lip which was initially small & gradually increased to present size 3x2cm approximately. Patient was initial visited in Chandrapur hospital and were done the incisional biopsy under local anaesthesia. On the lower lip, there is an ulcerative lesion. When the head and neck examination was completed, a biopsy was scheduled.

## 2.3 Family History

The patient's family comprised of four members. He was diagnosed to have squamous cell carcinoma with no abnormal genetic history from his parents. The patient's family is a nuclear family. With exception of the patient who was admitted to the hospital, his other family members did not have any complaints regarding their health.

## 2.4 Past Interventions and Outcome

The chief complaint of the patient was a painful non-healing ulcer on his lip was suspected to have be located within his right lower lip. The lesion was provisionally diagnosed as squamous cell carcinoma.

## 2.5 Clinical Findings

He stated that he had a painful, non-healing ulcer over his lower lip which was initially small and which had gradually increased to present size of about 3 cm x2cm. The ulcerative lesion was stated to be on his lower lip.

## 2.6 Physical Examination

During his examination, it was found that the patient had an ulcerative lesion upon his lip. Upon thorough examination from his head to his foot, a visible lump was noted over the ulcerative lesion on his lower lip, that measured about 3 cm x2 cm. The patient was noted to be thin, weak and he had a dull look. He was well oriented with regard to the date, time, place of his examination and he was cooperative.

## 2.7 Diagnostic Assessment

### 2.7.1 Blood Test Results

Haemoglobin (Hb) -13.2gm, mch-27.9fl, mchc-33.3%, Total Red blood cell count (RBC) count-4.72million/cu.mm Rdw - 12.7%, Total white blood cell (WBC) count- 16500/cu.mm, monocytes -4%, Granulocytes- 85%, Lymphocytes -10%, Esonophils-2%, Basophils - 0%, Total platelet count -2.68 cu.mm. Urea 17mg/dl, creatinine-0.9mg/dl, sodium-131mmol/dl, potassium 5.1 mmol/L. Despite the fact that the patient was not diabetic, his random blood sugar level was 90mg/dL (which was raised). No hemoparasite was seen.

### 2.7.2 Contrast-Enhanced Computed-Tomography (CECT) Scan

His CECT scan of his neck showed a contrast-enhancing enhancing soft tissue density lesion in his right Gingivo Buccal and his Gingivo Labial region with bony erosion and stage IA, IB and IIA as well as lymph nodes A .

### 2.7.3 Histopathology report

A multiple, irregular, reddish, brownish tissue pieces aggregating 1x1cm.selection from given tissue piece shows histopathological features suggestive of well differentiated squamous cell carcinoma.

## 3. MANAGEMENT

### 3.1 Medical Management

He was given pre operative nebulization in normal saline and before half hour before his surgery he was given nebulization with 4% LOX. The patient was scheduled for surgery on date 14th June 2021. He underwent mandibulectomy surgery and the patient was intubated. His post-operative medications included: Injection Tramadol, Injction Dexamethasone, Injection Augmentin, Inj Metronidazole, Pan 40mg.injections, as well as and pain control medication with injections of Neomol 1gm, and injections of Perimnorm 10 mg were given .and after his extubation, he received Chymoral fort tablets, tablets A to Z, 500 mg Limcee tablets. He also received postoperative chemo-radiotherapy. He received 10 sessions of radiotherapy with 50 mg of cisplatin per week.

### 3.2 Surgical Management

The patient underwent surgery on 14/6/2021 according to planned. Patient sedated with Midazolam and Propofol. General Anesthesia induced Nadoendotracheal intubation done. Patient maintained oxygen and N2O and sevoflurane. Patient prepared & draped according to standard surgical protocol. Wedge

Mandibulectomy surgery was done and the specimen was sent for histopathological examination.

### 3.3 Nursing Management

This case belonged to oncology, ENT as concerned department, therefore nursing care played a vital role in every aspect.

#### PRE-OPERATIVE

**Table 1. Nursing diagnosis: Pain in lip related to ulcerative lesion secondary related to lump in the lip**

Nursing Interventions	Rationale
1. Assess the level of pain then record and report it to doctor.	1. To know the level of pain and frame further interventions.
2. Consult and co-ordinate with health care team members of various department included in the case.	2. To confirm the final diagnosis with staging and prepare nursing diagnosis to provide effective care.
3. Administer the analgesics .	3. To provide symptomatic pain relief and treat the tumour.

**Table 2. Nursing diagnosis: imbalance nutritional pattern less than body requirement related to loss of appetite secondary related to difficulty in mastication**

Nursing Intervention	Rationale
1. Monitor the weight of the patient daily.	1. To collect the baseline data about weight loss with the pain perception.
2. Check the physician's order and administer antiemetic and supplementary medicines.	2. To avoid regurgitation and enhance the health of the patient.
3. Consult the dietician and provide a diet pattern to the patient's family to follow.	3. To provide the patient with a healthy diet in order to cope up with daily activities.

**Table 3. Nursing diagnosis: Fear and anxiety related to hospitalization secondary related to the consequences of surgical procedures**

Nursing Intervention	Rationale
1. Maintain rapport with the patient and her family.	1. To induce comfort so that they can share about the queries and problems.
2. Provide information regarding disease condition and regimen treatment.	2. To increase knowledge regarding disease condition and regimen treatment of the patient and family.
3. Counsel the patient regarding the mentioned fears and anxiety.	3. To prepare the patient for the surgery.

#### POST OPERATIVE

**Table 4. Nursing diagnosis: Acute pain in lip related to surgical incision secondary related to insertion of romovac drain**

Nursing Intervention	Rationale
1. Obtain the level of pain on pain-scale	1. To prepare the post-operative nursing intervention on pain.
2. Provide the patient with a variety of therapies.like diversional	2. To minimize the level of pain perception.
3. Give proper position to the patient.	3. To induce comfort and rest.
4. Administer the prescribed medications by the physicians.	4. To help the patient cure fast and also to reduce pain.

**Table 5. Nursing diagnosis: Risk for infection related to surgical incision and endotracheal intubation insertion sites secondary related to low immunity**

Nursing Intervention	Rationale
1. Assess the surgical site on every shift further record and report if any pus formation is seen. 2. Provide Foley's catheter care to the patient. 3. Check the physician's note and apply new dressing on the sutured site on day after the surgery.	1. To know the wound healing and to check for presence of any infection. 2. To prevent urinary tract infection. 3. To prevent infection on the incision site and promote healing.
4.suction to the ET tube	4.Remove secretion

**Table 6. Nursing diagnosis: Activity intolerance related to surgical procedures secondary to pain perception**

Nursing Intervention	Rationale
1. Encourage the patient to do drink plenty of water. 2. Advice the patient to perform deep breathing and leg exercises like walking 3.Explained the need of family assisted care to the family member	1. To hydrate the body of the patient. 2. To reduce the risks of blood clots and chest infections 3.To carry out day to day activity and avoid any futher injury.

#### 4. DISCUSSION

Cancers of oral cavity are grouped together with other cancers in the head and neck area. Such type of cancers have same risk factors. Tobacco chewing is the strongest or major cause of these type of cancers. The risk may be increased if the person will do smoke and drink alcohol together [8].

Most of the cases of oral carcinoma. The majority of cases of oral carcinoma are linked totobacco use and begin as a premalignant lesion such as leukoplakia before progressing to the malignant stage, however nontobacco-related squamous cell carcinoma has been described in rare cases.The case reported here is one without the history of tobacco chewing habit [9].

Desquamative gingival lesions and other inflammatory gingival lesions are frequently confused with gingival carcinoma.The gingiva is one of the most common sites for chronic inflammation due to irritants such as calculus and an abundance of microbial flora [10].

In lip cancers oral cavity malignancies are commonly occur and axillaries lymph node metastasis are very rare [11].

Survival rate is increased in oral cancer patients due to advanced medical technology. Survival rate of oral cancer patients can be improved with early identification and proper treatment, and

with the help of adjuvant post-operative radiotherapy or chemoradiotherapy [12].

After Mandibulectomy the patient has to stay in the hospital about 10 to 15 days or according to the condition of the patient [13].

Radiation therapy becomes effective in combination with chemotherapy. Radiation therapy helps to relieve pain caused by cancer [14].

Treatment can be give with excision of tumour, dissection of lymph node and reconstruction of local flap for the lower lip cancer [15].

#### 5. CONCLUSIONS

A 59 years-old man from Ballarpur, Chandrapur was admitted to the oral surgery ward. with complaints of having burning sensation on consumption of hot and spicy food for 3 months, apraxia with difficulty in mastication over about the preceding 2 months, and nerve paresthesia in his lower lip.

He was admitted to oral surgery as a diagnosed case of squamous cell carcinoma of the lip based upon histopathology examination features of the tumor that was treated by mandibulectomy with excision of the lip.

As soon as the patient was admitted to AVBR hospital, all the required investigations were done and appropriate treatments were started.

The patient has been on symptomatic treatment and he underwent surgery in the form of mandibulectomy and excision of the tumour, which so far has been helping the patient relieve his symptoms.

Since then, he has been readmitted for chemo cycles and he also received radiotherapy.

The patient and her family underwent psychological stress, which had resolved to an extent by being an active listener and providing proper counselling.

He has remained alive with no evidence of recurrence at his 4-month follow-up and at this stage it would be concluded that radical surgery in the form of excision of an advanced squamous cell carcinoma by means of mandibulectomy with complete excision of the squamous cell carcinoma of the tumour plus adjuvant radiotherapy and adjuvant therapy has demonstrated in the first instance a good short term-outcome but long-term follow-up assessments of the patient by means of clinical assessments of the patient and radiology imaging with CT Scan, Ultrasound scan, MRI scan, Positron Emission Tomography – computed tomography (PET-CT) scan, and isotope bone scan as well as routine haematology and biochemistry blood testes would eventually ascertain the medium term and long-term outcome of such a malignant tumour including if chemotherapy agents that had been used namely [mention the names of the chemotherapy agents] plus radiotherapy are efficacious in providing a good long-term outcome for locally advanced squamous cell carcinoma of the lip

## CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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