



## SQUAMOUS CELL CARCINOMA- A CASE REPORT

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### Abstract.

**Introduction.** Squamous cell carcinoma is the most common malignant tumor of oral cavity & one of the most common causes of death. Its prevalence is seen in above 50 years in males and with rare occurrence below 30 years. It arises from dysplastic oral squamous epithelium.

**Case presentation.** A painless swelling was noted in upper left back tooth region of a 63 years old male which was hard in consistency. He noticed it one and a half week ago. Histopathological examination revealed squamous cell carcinoma.

**Conclusion.** This case report described the case of oral Squamous cell carcinoma of maxillary left posterior region with well-defined exophytic growth in upper left alveolar ridge in relation to 28.

**Keywords:** Carcinoma, Squamous Cell; Mouth Neoplasms; Sarcoma, Clear Cell; Squamous Cell Carcinoma of Head and Neck.

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### Introduction.

Squamous cell carcinoma is the most common oral malignant tumor and frequently occurs on the lateral border of tongue. It is the eighth most common cancer worldwide.<sup>[1]</sup>

The etiologic factors for oral squamous cell carcinoma are primarily alcohol consumption and tobacco (smoking and smokeless). Secondary risk factors are inclusive of malnutrition, high exposure to sunlight, poor oral hygiene, immunosuppression, trauma, candida infection, sanguinaria, HPV, chronic irritation and infection<sup>[2]</sup>. Squamous cell carcinoma is the most prudent in age group between 45-75.<sup>[1]</sup>

Histo-pathologically, it can be classified as well differentiated, moderately differentiated or poorly differentiated Squamous cell carcinoma<sup>[3]</sup>. Various histopathological variants are seen in conventional squamous cell carcinoma which include verrucous cell carcinoma, Basaloid squamous cell carcinoma, Adenoid squamous cell carcinoma, Spindle cell carcinoma, lymphoepithelioma, Adeno squamous carcinoma.<sup>[4]</sup>

Clear cell variant of squamous cell carcinoma is one of the rare histological variant<sup>[3]</sup>. It was first described in the skin in 1980 by kuO<sup>[5]</sup>. Although, the clear cell variant is not recognized by WHO in classifying oral cavity tumors, but its nature occurrence and biological behavior is discussed in literature.<sup>[6]</sup>

It is suggested by many authors that "clear cell changes" could be a progressive process exhibited

in advanced cases of squamous cell carcinoma which signifies its aggressive nature with early metastasis resulting in poor prognosis.<sup>[3][7]</sup>

This case report describes the case of rare variant of Squamous cell carcinoma with clinical & histopathological findings & literature reviews.

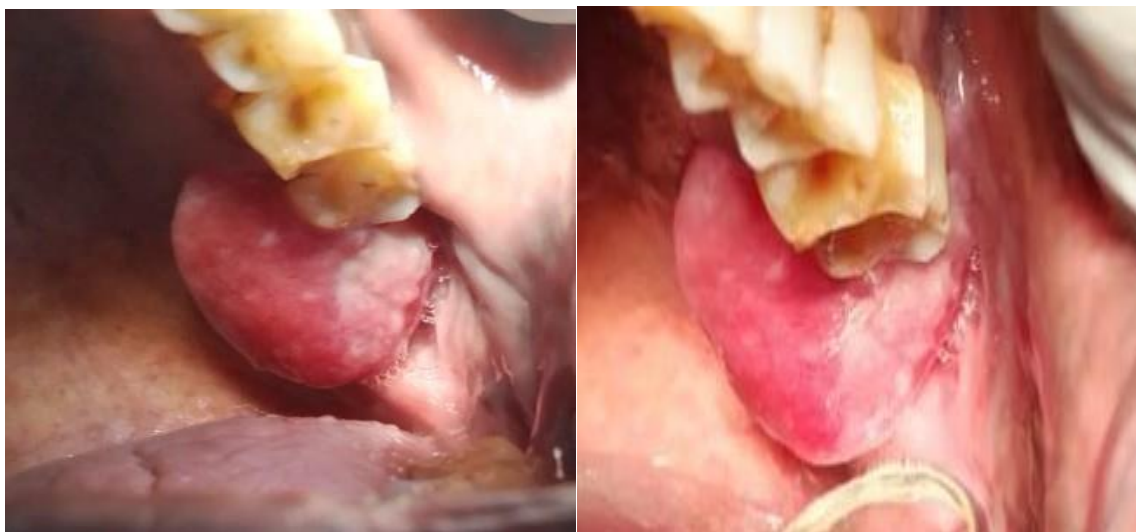
### Case Report.

A 63-years old male patient reported unusual swelling in left maxillary tooth region since one and a half week. The swelling was non tender and hard in consistency. The patient had a habit of smoking since 18 years. The swelling was of peanut size initially which increased suddenly and resulted in difficulty in deglutition.

There was history of extraction 2 days prior. Medical history revealed presence of hydrocele since 2 years.

Intraoral examination revealed well defined painless exophytic growth in upper left alveolar ridge in relation to 28. The swelling extended from distal aspect of the 2nd molar to maxillary tuberosity mesiodistally and buccal aspect of the alveolar ridge with 28 region to 1 cm anterior to hard palate mediolaterally.

The swelling was approximately 3.5\* 3cm in size, spherical in shape with erythematous and irregular surface.



**Figure 1: Intraoral image of exophytic growth in 28 Extraoral examination.**

On inspection, Gross facial asymmetry was noticed.

Solitary well defined swelling on the left side of lower third of face was marked which was spherical in shape and approximately 2\*3 cm in dimension. It extended from 4 cm away from the

left corner of the mouth to the angle of the mandible antero-posteriorly and 3 cm away from the ala tragus line to the body of the mandible supero-inferiorly. Nonspecific changes in the surface were noticed.

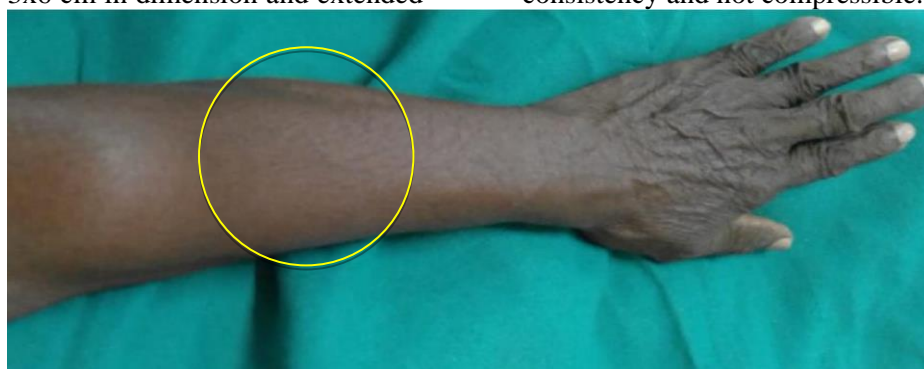
On palpation, the swelling was non tender, hard in consistency, not compressible and movable.



**Figure 2: Extraoral facial profile of the patient**

Gross examination showed a spherical well-defined swelling on left upper limb which was approximately 3x6 cm in dimension and extended

3 cm away from the cubital fossa to 6 cm anteriorly. The swelling was, non - tender hard in consistency and not compressible.



**Figure 3: Swelling on the left upper extremity**

**Diagnosis**

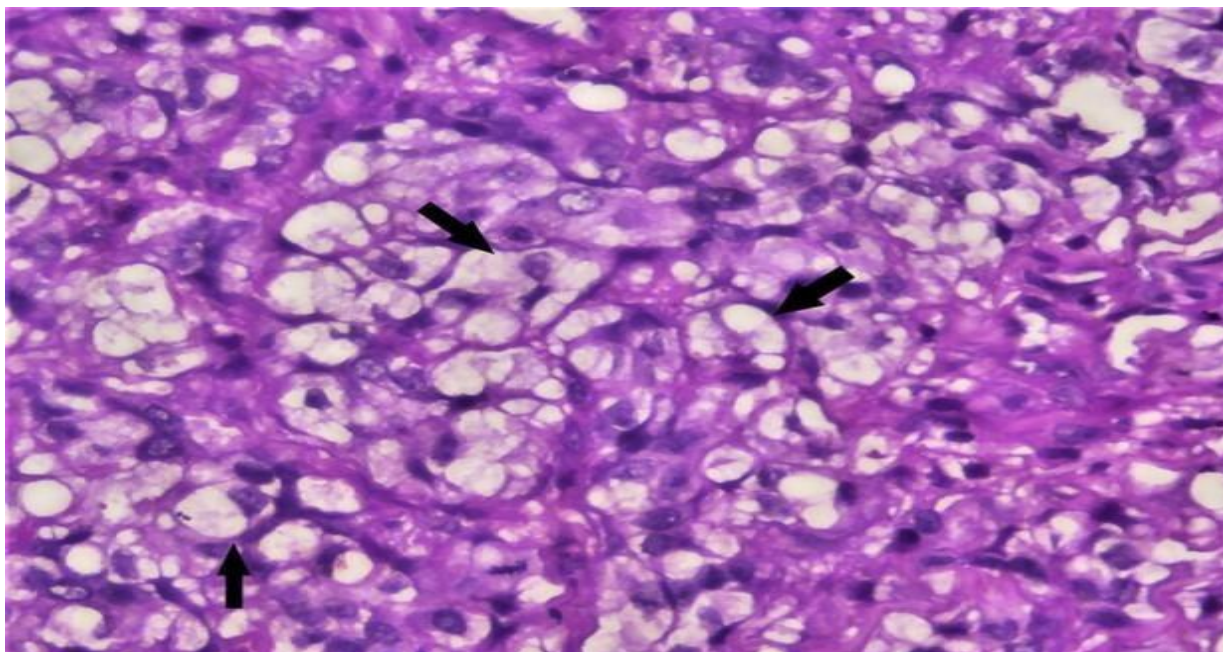
Provisional diagnosis of exophytic growth in left alveolar ridge with 28 was made.

Patient underwent for OPG & incisional biopsy. We submitted the specimen for histopathological examination.



Histopathological examination of the given H&E-stained section indicated dysplastic stratified squamous epithelium infiltrating tumour composed of malignant squamoid as well as basaloid cells separated by delicate fibrous connective tissue stroma. The dysplastic epithelial cells exhibit cellular as well as nuclear pleomorphism hyperchromatic nucleus,

dyskeratosis, pronounced nucleolus and abnormal mitotic figures suggesting malignancy. Connective tissue stroma contains atypical epithelial cells and sheets of keratin pearls in focal areas. Islands of round to polygonal - shaped cells with clear cytoplasm occupied almost 50% stromal tissue.



**Figure 4: Photomicrograph of the biopsy. Positive PAS diastase staining in clear cells (arrow)(40X).**

The diagnosis of poorly differentiated clear cell variant of Squamous cell carcinoma was rendered depending on above findings.

The patient was referred to cancer hospital for treatment We advised complete excision of the lesion.



**Figure 5: During excision biopsy**

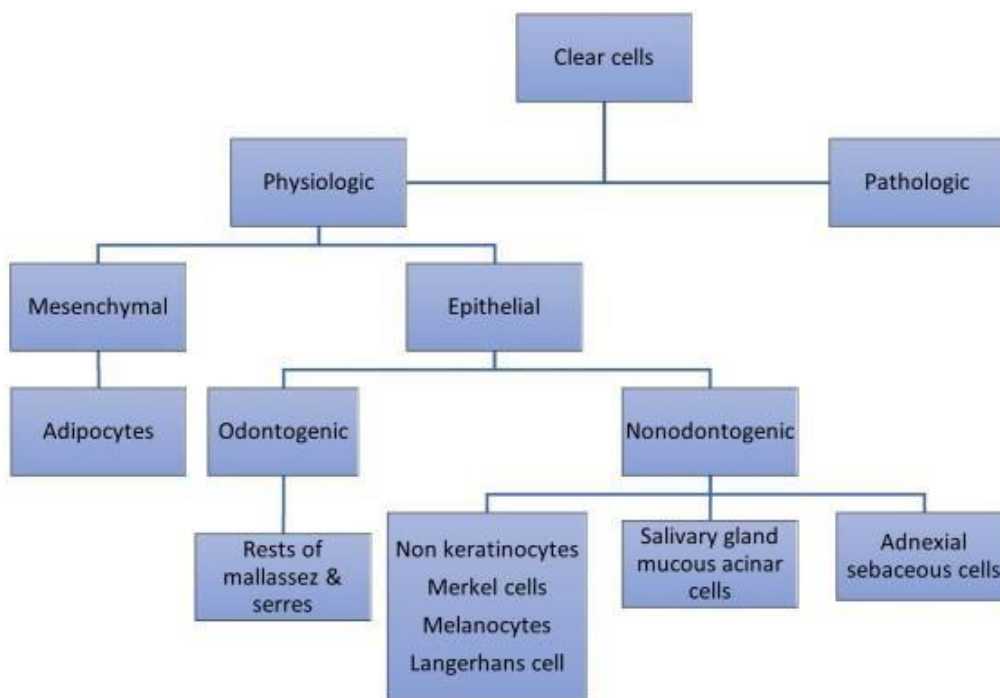
Unfortunately, we lost the patient two days after surgery.

**Discussion**

Worldwide, oral cancer is the 8th most common malignancy and Squamous cell carcinoma is the

most common malignant tumor of oral cavity followed by lymphoma & mucoepidermoid carcinoma<sup>[8]</sup>.

A clear cell is one in which the cytoplasm appears empty when stained with H & E stains<sup>[7]</sup>. They are classified as pathologic & physiologic.



**Algorithm 1**

The cells appear clear due to the constituent present in the cytoplasm, artifactual changes in the or accumulated intracytoplasmic structures<sup>[6]</sup>.

**Table 1 Causes of clearing of cells.**

Content of cytoplasm	Accumulation of intra- cytoplasmic structures	Artifactual changes in the cytoplasm
Mucopolysaccharides, zymogen granules	immature Water, glycogen, mucin	Fixation and histologic techniques
Intermediate filaments	Lipids	
Paucity of cytoplasmic organelles	Phagocytized foreign material	
	Hydropic degeneration	

The clear cell lesions of the oral cavity can be classified as odontogenic origin, salivary gland origin & metastatic lesion. Odontogenic clear cell lesions are clear cell odontogenic carcinoma, clear odontogenic ghost cell tumors. Salivary gland tumors with clear cell changes are acinic cell carcinoma, clear cell myoepithelial carcinoma, mucoepidermoid carcinoma, hyalinizing clear cell carcinoma. Metastatic lesions include carcinoma from renal cells, liver, breast & lungs. All these clear cell lesions can be considered differentials for Clear cell oral squamous cell carcinoma. <sup>[7][9]</sup>

Specific stains such as PAS with or without diastase rule out the various origins of clear cell such as adnexal & salivary glands.

In the present case, a variant of oral squamous cell carcinoma comprised of approximately 50% of the cells with clear cytoplasm, suggesting a clear cell

variant is discussed. The clinical feature of previously reported cases exhibited the following observation presented with exophytic growth and some lobulated growth with ulcero-proliferative growth. Some cases represented with non - scrapable, irregular whitepatch. The present case was presented with exophytic growth.

In present case the patient had 18 years of habit of tobacco consumption (smoking or smokeless)

The prognosis of the present case was poor and patient died within few days after the surgery. As per the previous literature reviews, the clear cell variant is aggressive and requires extensive management. Long term follow up is required to prevent recurrence.

More studies are required to understand the pathophysiology of the Clear cell variant of oral squamous cell carcinoma.

Molecular studies are required to understand the biological, histopathological & clinical significance of these cases.

### Conclusion.

Clear cell variant of oral squamous cell carcinoma is a rare variant & should be diagnosed carefully. special staining & IHC are recommended for diagnostic confirmation. More studies and research is required to evaluate the biological behavior, pathophysiology treatment options & prognosis. It may be essential to add this to the WHO classification as it is not a rare variant in skin & oral variant has been overlooked.

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