SPINDLE CELL CARCINOMA – A CASE REPORT

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Abstract: Spindle cell carcinoma is a relatively rare malignant neoplasm. It occurs primarily in the oral cavity and larynx and less often in the Esophagus and skin. The mean age at diagnosis for Spindle cell carcinoma is 57 years. This paper presents the case of a 17 year old girl with Spindle cell carcinoma involving the left maxillary alveolus. P/D of CGCG and D/D of minor salivary gland tumor, Ca-alveolus, Ca-antrum was considered. Histopathological and imunohistochemical analysis confirmed a diagnosis of Spindle cell carcinoma.

Key words: Spindle cell carcinoma, maxilla.

Spindle cell carcinoma is an unusual and rare neoplasm of the upper aerodigestive tract[1]. It is a rare variant of squamous cell carcinoma characterized by dysplastic surface squamous epithelium in conjunction with invasive Spindle cell element.

It may be indistinguishable from connective tissue sarcomas or other spindle cell malignancies at the level of light microscope.

In the past this biphasic lesion was thought to be a collision tumor between a carcinoma and sarcoma but most authorities now consider the spindle cells to be simply an anaplastic type of carcinoma cells. The mean age at diagnosis for Spindle cell carcinoma is 57 years ranging from 29 to 93 years. There is no sex predilection. The neoplasm occurs predominantly in the upper acrodigestive tract especially in the larynx, oral cavity and esophagus. In the oral cavity the lower lip, lateral posterior tongue and alveolar ridges are common sites. In contrast to other oral cancers, the Spindle cell carcinoma typically appears as a pedunculated polypoid mass, but it may occasionally appear as a sessile nodular or fungating mass or an ulcer. Pain and paresthesia are prominent features. The tumor grows rapidly and tends to metastasize early and is typically diagnosed in the later stages. These are mainly diagnosed by histopathological and immunohistochemical studies[2].

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This paper presents a case of a 17 year old female patient with Spindle cell carcinoma involving left maxillary alveolus.

CASE REPORT

A 17 year old female patient presented to the department of oral medicine and radiology with a C/o swelling in the left maxillary posterior region which had duration of 15 days. The history revealed the patient noticed mobility of 27 which was associated with pain for which she underwent extraction. After a weeks time, the patient noticed a proportionately enlarging growth in relation to the unhealed socket region which was associated with pain on mastication. Subsequently the patient developed paresthesia over left zygomatic region. The medical history was unremarkable, there was no positive history of trauma.

On examination: There was an asymmetry of the face with a diffuse swelling over the left maxillary posterior region.

I/O, 27 missing: A polypoid growth measuring approx 5X5 cms was present in the region of 27. the mucosa over the growth was inflamed and showed cuspal indentation of lower molar teeth. The growth was fragile, nontender. The teeth adjacent to the lesion showed grade III mobility. The left sub mandibular lymph nodes were palpable and nontender.

Based on the history and clinical examination, a p/d of aggressive CGCG was made and a d/d of minor salivary gland tumor, Ca – alveolus, Ca – antrum was considered.

Routine hemogram revealed the patient had microcytic hypochromic anemic.

OPG showed diffuse radiolucency extending from alveolar bone crest in relation to 25, 26, 27,28 to the inferior wall of orbit superiorly. Anteriorly from the distal of 25 to the left maxillary tuberosity posteriorly. Contrast enhanced CT Images revealed an erosion of maxillary sinus and inferior wall of left orbit. Histopathological examination revealed clusters of spindle cells. Immunohistochemistry revealed positivity for tumor marker S-100 and a final diagnosis of spindle cell carcinoma was made. The tumor was staged as T_4N_1Mx.

Treatment planning for a partial maxillectomy was abandoned because of the patients poor systemic health. The patient subsequently underwent palliative chemotherapy with intravenous cisplatinum. However this strategy was ineffective, and she died with widespread disease approximately 2months later.

DISCUSSION

S.V.Kane and Anil Crux in their study stated that pure spindle cell carcinomas arising in the oral cavity are rare and are often difficult to diagnose. Electron microscopy (EM) and immunohistochemistry (IHC) are necessary for confirmation[3].

Spindle cell carcinoma is characterized by both sarcomatoid proliferation of spindle shaped cells and squamous cell carcinoma[4]. Being a variant of squamous cell carcinoma, the aggressive nature of this tumour created a lot of controversies among the investigators regarding the origin of spindle cells till 1970. It was then virchow who stated that histopathelogically this neoplasm consists of two components : squamous and a spindle component and the spindle cells are of epithelial origin and are transformed squamous cells which have an ability to produce mesenchymal intermediate filaments. The presence of these intermediate filaments in the cells led the investigators to name the disease by variety of names including pseudosarcoma, carcinosarcoma , pleomorphic carcinoma and spindle cell carcinoma[5]. Results of the recent studies suggest that the sarcomatoid component of spindle cell carcinoma could represent metaplastic alteration of the squamous cell carcinoma component. Some authors have emphasized that radiation or trauma induces spindle cell carcinoma[6], however the patient in this case had no such history.

In the efforts to understand the aggressive behavior of this tumour immunohistochemical studies by Ozaw and Kelmer revealed that these spindle cells lack tight intercellular additions between cells due to dysfunction in adhesion complex called cadherin- catenin which is normally present in the actin filament of cells. This dysfunction in adhesion complex and lack of tight inter cellular junction leads to a rapid invasion,metastasis and a poor prognosis[4].

The disease free survival rate is approximately 30 % for oral lesions with most death occurring within 1 year of diagnosis[2]. However this patient died within four months due to the invasion of the lesion into the cranial base.

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Fig 1: Photograph showing extraoral swelling on the left side of face



Fig 2: Photograph showing lesion in the left maxilla.

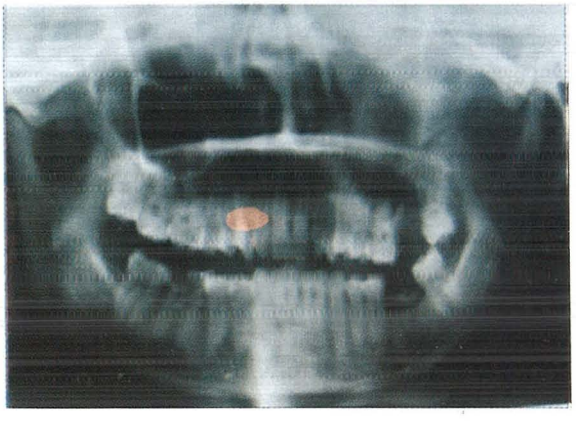


Fig 4: OPG showing involvement of left maxillary sinus

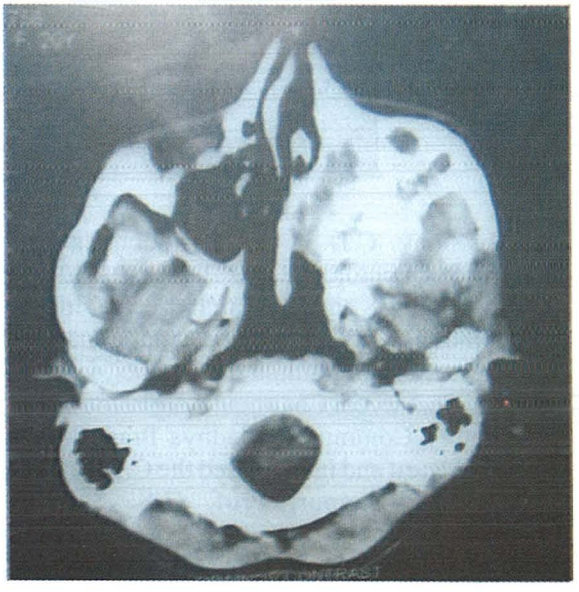


Fig 5: CT scan

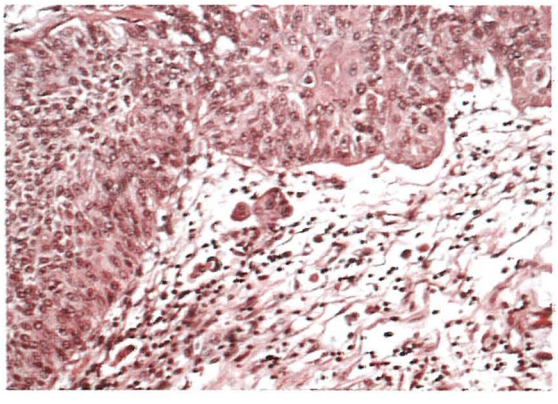


Fig 1: Photograph showing asymmetry of face