

# Chondroblastic Osteosarcoma :- A rare case report

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## Introduction

Chondroblastic Osteosarcoma(OS) defined by WHO is characterised by predominant presence of chondroid matrix which is high grade hyaline cartilage and associated with non-chondroid element(osteoid or bone matrix)<sup>1</sup>. OS of jaw bones is rare and comprises 6-9% of all OS and <1% of all head and neck malignancy<sup>2</sup>.

## Case Study

### Clinical history

A 22 yr old man reported to ENT dept. with chief complaint of swelling in left and right jaw and lump over left shoulder since 5 months. He was tobacco chewer for past 2 years.

## On Examination

### •General examination:-

He was moderately built and vital signs are within normal limits.

### •Extra- oral examination:-

Slight bulge and facial asymmetry was noted on left side of face. Lymph nodes of head and neck were not palpable.



### • Intra oral examination:-

Revealed a solitary, poorly defined, oval shaped, lobulated and pink colored swelling.



## Radiographic examination:-

CECT Neck revealed a radiolucent mass with dispersed areas of radioopacity with poorly defined and indistinct edges. Underlying mandibular bone shows area of lysis and sclerosis with cortical erosions.

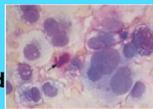
## Cytopathology:-

**Site:-** FNAC from left jaw swelling.

**M/E:-** Smears are moderately cellular and revealed clusters and singly scattered neoplastic cells embedded in a myxoid BG matrix. BG is hemorrhagic and contains many chondroid matrix fragments.

**Imp:-** S/O High Grade Sarcoma with chondroid differentiation.

**Note:-** Other sites revealed similar findings which was later confirmed on histopathology.

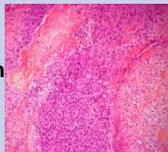


## Histopathology:-

**Specimen:-** Left segmental mandibulectomy.

**M/E:-** Tumour displaying peripheral areas composed of pleomorphic spindle cells with lace like network of osteoid b/w the tumour cells. Large areas of neoplastic cartilage in central part with hypercellularity with high grade atypia of cells within the lacunae are seen.

Ant., post., sup. and inferior skin and soft tissue resection margins, sub mandibular gland, Ant. and post. Mandibular resection margins are free of tumour.



**Imp:-** Chondroblastic Osteosarcoma.

## Discussion:-

•OS is second MC malignant bone tumour after multiple myeloma accounting for 15- 35% of all primary malignant bone tumours<sup>3</sup>.

•OS of jaws seen in 3<sup>rd</sup> – 4<sup>th</sup> decade<sup>4</sup>.

•Males are more commonly affected than females<sup>4</sup>.

•Swelling is dominant complaint in OS of jaws whereas pain is common in OS of long bones. Other features such as swelling, tooth mobility, parasthesia may be present.

•Pain, fever, or weight loss is rare<sup>1</sup>.

## Diagnosis:-

**IHC:-** helps in differentiating chondroblastic OS from chondrosarcoma as it is positive for vimentin, EMA, S100, rarely positive for CK while chondrosarcoma is positive for vimentin and S100<sup>5</sup>.

**TOC:-** Complete surgical resection with negative margins if metastasis occurs as in our case then it is complemented by RT and CT Use of CT before and after surgery promotes size reduction. Currently Doxorubicin, cisplatin, methotrexate, with leukovorin and ifosfamide are most active agents and given within 21 days of surgery<sup>6</sup>.

## Conclusion:-

•In the present study, we presented our experience on FNAC and describe the spectrum of lesions along with their cytomorphological features. Confirmatory diagnosis was made on histopathology.

•FNAC and histopathology Is an effective method of making a rapid diagnosis, and hence can play a crucial role in treatment.

## References

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