

## A Rare Case of Brain Metastasis

**Amit Kumar Ghosh\*, Rafit Deb Barma, TN Sharma and Malay Chakrabarty**

Calcutta University, India

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\*Corresponding author: Calcutta University, India, Tel: 9830151497; Email: amitghosh74@yahoo.co.in

### Abstract

Intracerebral metastasis from chondrosarcoma is rare. This is a case report of 46 year old man with intracerebral metastasis from rib chondrosarcoma who was operated and literature was reviewed.

**Keywords:** Chondrosarcoma; Intracerebral metastasis

### Introduction

A 46 years old man presented with generalised tonic clonic seizure followed by drowsiness and admitted in the hospital. History revealed that he had developed right sided weakness over the last 2 weeks but ignored. He underwent left 7-9<sup>th</sup> rib resection for chondrosarcoma of 8<sup>th</sup> rib 13 years ago. No other detailed data regarding the type and grade of the lesion was available. Chest X-ray was done (Figure 1).



Figure 1: Showing left 7-9th rib resected status.



Figure 2: Non-contrast CT scan showing left sided hyperdense lesion with edema involving posterior frontal and parietal region.

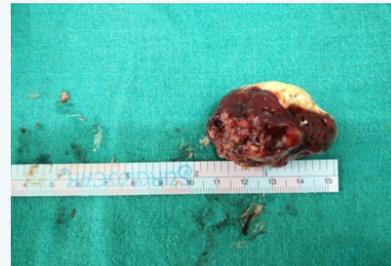


Figure 3: Showing resected tumor with evidence of intratumoral bleed.

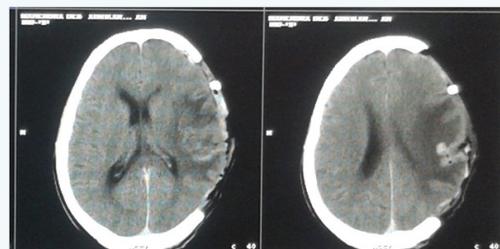


Figure 4: Post-operative CT scan of brain showing complete excision of tumor with decompressive craniectomised status.

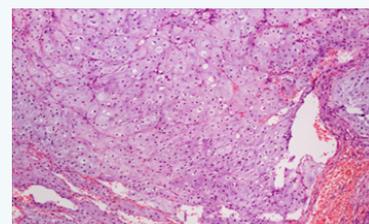


Figure 5A: Histopathology showing malignant cartilage.

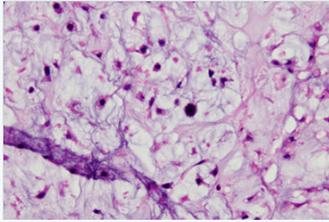


Figure 5B: Histopathology showing mitotic activity.

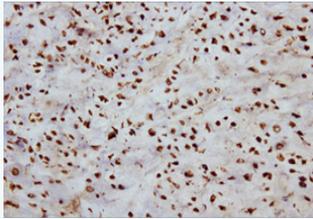


Figure 5C: Histopathology showing S100 immunopositivity.

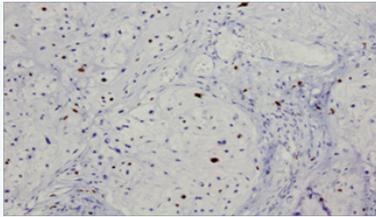


Figure 5D: Histopathology showing high Ki67 proliferative index.

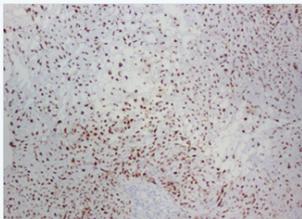


Figure 5E: Histopathology showing D240 immunopositivity.

On examination, Patient's GCS was E2V1M5, pupils were equal and reacting to light, there was a paucity of movement in right side. After getting the CT scan of the brain (Figure 2), either hematoma or tumor was suspected. The patient was taken for immediate surgery. Considering the mass effect left sided decompressive craniectomy was done and the lesion was an intracerebral tumor with intratumoral hemorrhage (Figure 3). There was no dural attachment with the lesion. Complete excision of the tumor was done. Post-operative CT scan of brain showed diminution of mass effect (Figure 4). The patient had recovered well. Histopathology revealed metastatic well

differentiated chondrosarcoma (Figure 5A, 5B, 5C, 5D, 5E). The patient had been referred to oncology side for subsequent evaluation and management.

### Discussion

Chondrosarcoma is a malignancy of mesenchyme that is a common primary bone tumor subsequent to osteosarcoma in frequency. It has been classified based on histological appearance into slow growing, benign and malignant grade I to grade III. Distant metastases account for 10% of grade II and, 71% of grade III, commonly occurring to the lungs, other bones, and liver, resulting in a mere 5-year survival of 18 %. Primary intracranial chondrosarcoma constitutes only 0.16% of all intracranial tumors. Brain metastasis is exceedingly rare. Only 12 cases have been reported [1,2].

Primary intracranial Chondrosarcomas commonly arise from the skull base. Intracranial chondrosarcomas are of three variants: Classical, mesenchymal and myxoid. Classical variant has three histological grades: Grade I, II and III. Extraskelatal chondrosarcomas of dural origin are rare and only 53 cases have been reported till date [3]. Primary intracerebral chondrosarcoma is extremely rare--only 4 cases reported [4].

A strong propensity for local recurrence is observed in mesenchymal chondrosarcomas with a reported rate of ~65%. Though adjuvant radiotherapy is administered, there is no conclusive data regarding its efficacy in preventing recurrence. For skull base Chondrosarcoma, Radiosurgery as an adjuvant therapy after microsurgery is very effective in reducing recurrence. Role of proton beam is restricted to large inoperable tumors [4]. Chemotherapy is usually reserved for metastasis [5].

### References

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