

## **Skull Base Plasma Cell Myeloma with Bone Metastasis, Coincident Discover: A Case Report**

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### **Abstract**

Plasmacytoma is a tumor on the level of plasma cell in which it grows within soft tissue or within the axial skeleton.

Our case report is about 71 years old male patient follow up in ENT clinic for recurrent left ear discharge and infection, with no other complains and after doing a CT petrous bone, coincidentally, a huge mass in the skull base was discovered (large heterogeneously enhancing soft tissue mass with extensive bony destruction of the skull base).

**Keywords:** *Plasma Cell Myeloma; Plasmacytoma; Ear Discharge; Skull Base; Skull Base Destruction*

### **Introduction**

Plasmacytoma is a rare tumor which consists of localized proliferation of neoplastic monoclonal plasma cells. It categorized into two main forms [1].

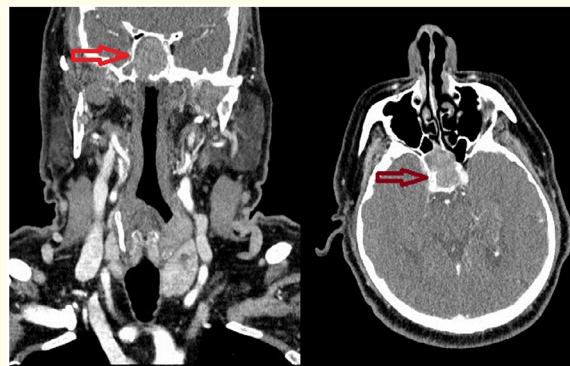
Solitary Plasmacytoma of bone is the most common (vertebra and skull base) and extramedullary Plasmacytoma (head and neck, nasal cavity).

Extramedullary Plasmacytoma most often occur in the upper respiratory tract also it can occur in any soft tissue, most of it treated with radiotherapy, but surgery is also used in some cases.

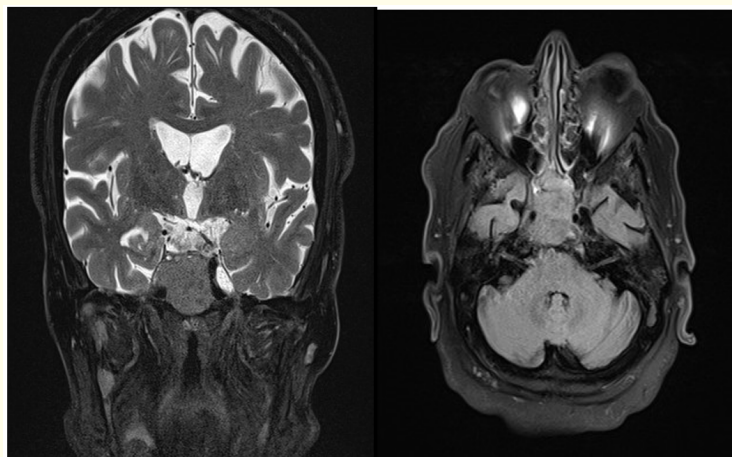
Plasmacytoma of the skull base is very rare condition, with very few cases published before [2]. Which is usually discovered in advance stage. The mainstay of treatment of these lesions remains endoscopic surgery followed by radiotherapy and chemotherapy when multiple myeloma is present [3].

### **Case Report**

A 71 years old male patient with history of recurrent left ear discharge and mild headache Patient regularly follow up with ENT clinic for management of chronic otitis media. Patient had CT scan petrous bone to exclude any pathology in the left middle ear. The CT scan reported large heterogeneously enhancing soft tissue mass with extensive bony destruction in the skull base measuring at least 4.3 x 3.3 x 3.3 cm. The destructive mass extending to the clivus, Sella, parasellar region and sphenoid sinus, also a multiple bony lesions involving the dorsal spine, the ribs and the sternum (Figure 1). MRI with contrast was done to exclude any intracranial extension (Figure 2).



**Figure 1:** *CT scan showing large heterogeneously enhancing soft tissue mass with extensive bony destruction in the skull base measuring at least 4.3 x 3.3 x 3.3 cm. The destructive mass extending to the clivus, Sella, parasellar region and sphenoid sinus, also a multiple bony lesions.*



**Figure 2:** MRI with contrast showing no intracranial extension.

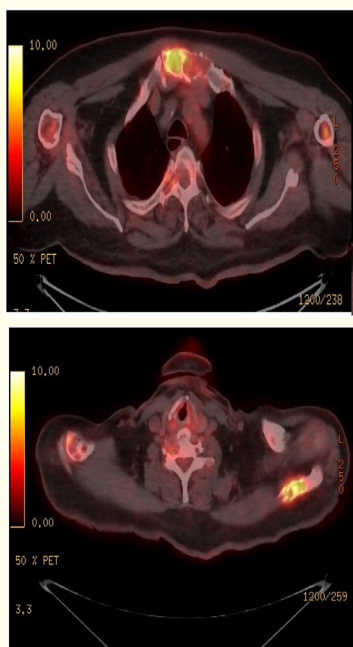
The decision was to do a biopsy from the mass through the sphenoid sinus with frozen section technique before doing any extensive dissection to the mass, at the same time an open biopsy taken from the sternum.

Frozen section showed round cell malignancy. Histopathology report showed plasma cell myeloma from both biopsy.

A bone marrow trephine was done which came similar to multiple myeloma.

Patient referred later to hematology team to follow up with them as candidate for systemic chemo and radio therapy.

A PET scan was done and showed Hyper metabolic mass lesion in the base of skull eroding the sella, clivus, petrous bone and sphenoid sinus with multiple hyper metabolic lytic bony lesions scattered throughout the skeletal system (Figure 3).



**Figure 3:** A PET scan showed multiple hyper metabolic lytic bony lesions scattered throughout the skeletal system.

### Discussion

Plasmacytoma of the skull-base is a very rare disease, usually patient come with different symptoms as paresthesia, diplopia, hearing loss vertigo [4].

large lesions can affect cranial nerves [3,4,6,7]. The radiological differential diagnosis of the base of skull plasmacytoma includes nasopharyngeal carcinoma, chordoma, meningioma, lymphoma, and pituitary adenoma [5].

Surgical treatment is not suggested in plasmacytoma (only for debunking), and the treatment of choice is chemo-radio therapy [6].

Extramedullary plasmacytoma can be a manifest in 20 to 30% of multiple myeloma patients, it might develop several years after the disease onset [7].

### Conclusion

A skull base Plasmacytoma is a very rare tumor causes general neurological symptoms. It would be diagnosed with multiple myeloma cases.

In our case report, the patient did not have any neurological symptoms even with that extensive destructive lesion in the skull base.

To diagnose the pathology as soon as possible was the keystone of the management of the lesion as the patient needs to start on chemo-radiotherapy to avoid any neurological complication which will be difficult to deal with later.

### Funding Support

None.

### Conflict of Interest

The authors declare no conflict of interest, financial or otherwise.

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