A Solitary mass in the Orbit

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Abstract: A 60 years old gentlemen presented to our out-patient department with complaints of progressive increase in the size of his left eye associated with diplopia. On further examining and investigating we diagnosed him to have a multiple myeloma which manifested as an orbital plasmacytoma. We have presented this case report for its typical presentation of pathological fracture many years before proptosis could manifest.

Keyword: multiple myeloma, proptosis, plasmacytoma

Case Report: A 60 year old gentlemen presented with complaints of proptosis for 2 years and pain and redness for 1 year in his Left Eye. He underwent surgery for his cervical spine fracture and was advised Radiotherapy 7 years back. On Examination his Best Corrected Visual Acuity in both eyes were 6/6. Right eye examination was normal.

Left eye had proptosis, which was resistant to retropulsion but was not pulsatile, not reducible and not compressible (Figure 1)  

Inferior dystopia with restriction of elevation, adduction and intorsion was present. Computer Tomogram of the Orbit suggested sphenoid sinus with bony destruction and encroaching into orbital apex and superior orbital fissure (Figure 2). A provisional diagnosis of Sphenoid Malignancy with Intracranial extension was made which could be a Chondrosarcoma, Adenocarcinoma or a Lymphoma. Biopsy of the mass was planned but the patient was lost to follow up. He returned after 6 months with his old records in which the patient was diagnosed to have a plasmacytoma of the cervical spine causing a pathological fracture.

Figure 2: CT Orbit- Large expansile soft tissue mass noticed in sphenoid sinus with bony destruction and encroaching into orbital apex and superior orbital fissure. Figure 3: Infiltration of monomorphic population of round cells with eccentric and perinuclear halo. Areas of pleomorphic cells with binucleation, prominent nucleoli, mitosis and interspersed collagenisation seen.
Figure 4: After treatment

Biopsy of the mass confirmed the diagnosis of plasmacytoma. A detailed metastatic workup including urine examination for Bence Jones proteins, Serum Electrophoresis for M-band, Skeletal survey, Bone marrow aspiration (figure 3), Sr. Immunoglobulin assay, Sr.ß2 Microglobulin assay were done, which confirmed the diagnosis to be a Multiple myeloma. So, the final diagnosis of a Multiple Myeloma presenting as an orbital plasmacytoma was made. Radiotherapy to the residual tumor 50 Gy/25 FX over 5 wks followed by 4 cycles of chemotherapy with Melphalan and Prednisolone was given. Since the response was good evidenced both by clinical examination (figure 4) and Radiological examination and a repeat CT revealed residual tumor, the patient was given 2 more cycles of chemotherapy.

**Discussion:**

We have presented this case here because of its typical presentation with a pathological fracture presenting before the ocular manifestations. Unilateral proptosis is more common than a bilateral proptosis in multiple myeloma. Eye is a mirror of the systemic pathology, so a great suspicion is required in diagnosing any case meticulously especially the tumors. Since the longevity of the patient’s life is dependent on the early diagnosis and treatment.

**References:**