

## Isolated Oculomotor Palsy Due to Extramedullary Plasmacytoma in the Sphenoid Sinus

Sir,

Extramedullary plasmacytomas (EMPs) are localized tumors composed of monoclonal plasma cells in an extraskeletal area constituting 3% of all plasma cell neoplasms. A 75-year-old male presented with diplopia on horizontal gaze and headache for 1 month. His medical history was unremarkable. He was a smoker for 35 years (pack-year: 105). He had complete ptosis; dilated pupil (right 5 mm and left 3 mm); absent direct and indirect light reflexes, and limitation of adduction, depression, and elevation in the right eye. Fundus and rest of the systemic examination was normal. He had mild normocytic normochromic anemia, with high erythrocyte sedimentation rate. Biochemical parameters showed mild renal failure (serum creatinine – 1.6 mg%), reversed albumin/globulin ratio, and hypercalcemia. Magnetic resonance imaging of the brain showed a lesion in the sphenoid sinus measuring 4.2 cm × 3.4 cm × 3 cm extending into the sellar and suprasellar regions and clivus bone, which was heterogeneously hyperintense on T2 and isointense on T1 with contrast enhancement [Figure 1a and b]. The lesion was extending to the bilateral cavernous sinus encasing the cavernous portion of the right internal carotid artery for approximately 210° [Figure 1c-e]. Multiple focal lesions in the skull vault were seen. Skull X-ray showed multiple lytic lesions [Figure 1f]. A transnasal biopsy of the lesion showed plasmacytoma [Figure 1g and h]. Further investigations for multiple myeloma showed a monoclonal gammopathy on serum protein electrophoresis, Bence Jones protein in the urine, and 42% plasma cells in bone marrow study. A diagnosis of multiple myeloma stage with EMD was

made, and the patient was started on chemotherapy with dexamethasone, cyclophosphamide, and bortezomib. When followed up after 6 months, the patient had no headache or diplopia and had radiological improvement (reduction in the size of the lesion). EMP generally displays a destructive course. EMP can be localized in one region or occur as a component of a systemic plasma cell dyscrasia. EMP associated with multiple myeloma has a bad prognosis when compared to solitary EMP. Sphenoid sinus is an extremely rare localization for an EMP.<sup>[1]</sup> Sphenoid sinus lesions have multiple benign and neoplastic causes.<sup>[2]</sup> Hence, it is important for clinicians to be aware of such unusual presentations of a common disease. This case highlights the need to consider EMP and coexisting multiple myeloma in patients with sphenoid sinus lesions.

### Declaration of patient consent

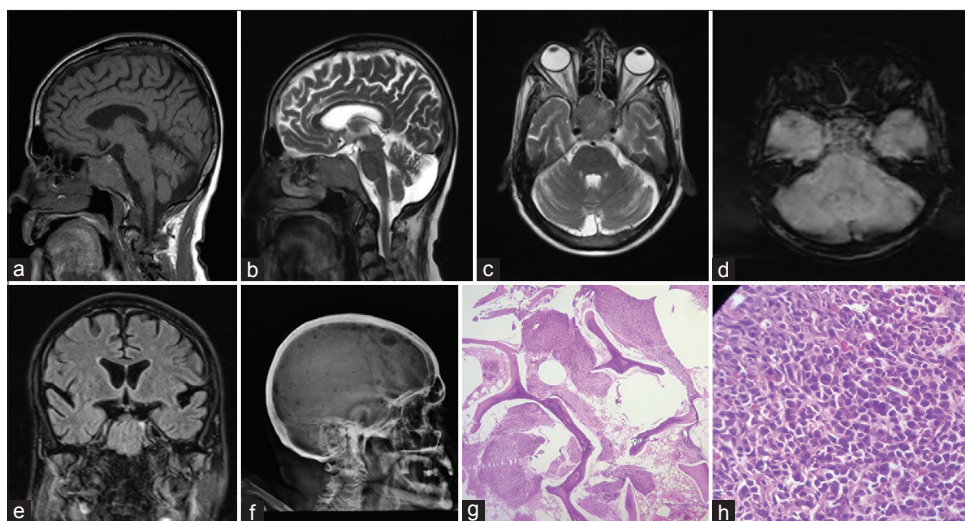
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

### Conflicts of interest

There are no conflicts of interest.



**Figure 1:** Magnetic resonance imaging brain showing a lesion in the sphenoid sinus measuring 4.2 cm × 3.4 cm × 3 cm extending into the sellar and suprasellar regions and clivus bone, which was isointense on T1 (a) and hyperintense on T2 (b) with contrast enhancement. The lesion was extending to the bilateral cavernous sinus encasing the cavernous portion of the right internal carotid artery for 210° (c). Susceptibility images showing blooming (d). Coronal T2 image showing the lesion (e). Skull X-ray showing lytic lesions (f). Hematoxylin and eosin staining showing neoplastic plasma cells (g and h)

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