

# A rare case of parietal bone hemangioma

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A 40-year-old female was presented with the painless swelling-painful area, progressively increasing in six, for the last 2 years. The patient complained of local tenderness. Antero-posterior and lateral views of plain X-ray skull revealed classical honeycomb appearance lesion [Figure 1]. A computed tomography (CT) scan of the head with bone window images showed the hypodense lesions with sharp, thickened, sclerotic margins [Figure 2]. *En bloc* excision of the tumor bearing bone and wide curettage was done until healthy margins of the bone were seen all around. Underneath durameter was not involved and was healthy. Cured vascular tumor along with the bone pieces was sent for histopathological examination, which was also subsequently reported as hemangioma.

Primary intraosseous hemangiomas are benign slow growing neoplasms. More than 50% occur in the vertebrae and skull.<sup>[1]</sup> They are rare tumors in the calvarium and represent 2% of osseous calvarial lesions and 0.2% of all bone neoplasms.<sup>[2]</sup> The parietal and frontal bones are the most common locations, but may occur in any skull bone. In very rare instances multifocal hemangiomas may occur. They are found more frequently in females.<sup>[1,2]</sup> Calvarial haemangiomas are benign, malformed vascular lesions, are usually asymptomatic and are usually, discovered incidentally on imaging or post-mortem examination. They are mostly encountered in the middle-aged persons, generally occurs more commonly in females than

males with a ratio of 3:2. There is no documental racial variation in the frequency of hemangiomas of skull, worldwide.<sup>[1-3]</sup>

The differential diagnosis of a solitary circumscribed expansile intradiploic cranial lesion includes an osteoma, aneurysmal bone cyst, giant cell tumor, fibrous dysplasia, Langerhans' cell histiocytosis, sarcoma, meningioma, metastatic disease, Paget's disease, lymphoma, and dermoid tumor.<sup>[1]</sup> According to the predominant type of vascular channel, four histological variants of hemangiomas are known; cavernous, capillary, arteriovenous, and venous. Bone hemangiomas are predominantly of the cavernous and capillary varieties. Cavernous hemangiomas most frequently occur in the skull whereas capillary hemangiomas predominate in the vertebral column, overall cavernous ones are commonly seen.<sup>[4]</sup>



**Figure 1:** Lateral views of plain X-ray skull revealing classical honeycomb appearance lesion

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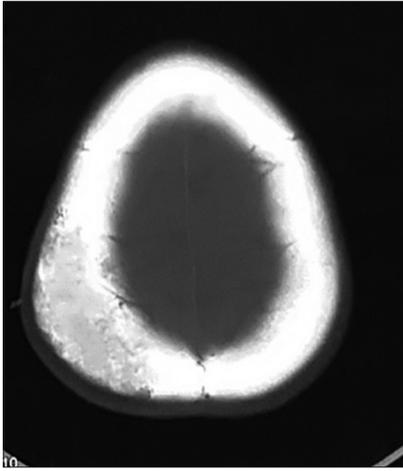
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**Figure 2:** Noncontrast computed tomography head (axial view, bone window) image showing the hypodense lesions with sharp, thickened, and sclerotic margins

Evaluation of cranial vault hemangioma starts with a plain radiograph, followed by CT head and magnetic resonance imaging brain. Digital subtraction angiography and skeletal scintigraphy may also be done but not that frequently. Treatment is not always necessary and indications include: Mass effects,

hemorrhage control, and esthetic improvement. Whenever indicated total surgical removal is the recommended treatment and is determinant of a definitive diagnosis Radiotherapy is advisable in situations where excision is not feasible.<sup>[5]</sup>

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#### **Conflicts of interest**

There are no conflicts of interest.

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