

Multiple skull osteomas in a 24-year-old woman

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A cranial osteoma typically develops in the accessory nasal sinus of young and middle aged women.¹⁻³ In contrast, a giant osteoma (≥ 10 cm diameter) preferentially grows on the parietal skull¹ as a single lesion. A 24-year-old woman developed a series of lumps on the scalp of the right frontal to parietal skull since her teens. From the age of 20, the cephalic lump gradually grew (Figure 1). No headache or neurological dysfunction accompanied the growth of the lump. A computed tomography (CT) scan revealed distinct hyperplasia of the external bone (Figure 1), which was similar to the image features of an osteoma.⁴ Moreover, the extremely slow growth was similar to that of benign lesions including cavernous hemangioma, osteochondroma, or osseous meningioma. Radiological images revealed that the cancellous bone layer did not increase; however, isolated hyperostosis of the cortical bone was sparsely distributed. Gardner syndrome associated

malformation was presumed by multiple lesions. A whole body positron emission tomography scan with 18F-fluorodeoxyglucose showed no specific accumulation, which is indicative of soft tissue tumors. The results revealed that it was not a Gardner's syndrome-related lesions. Fibrous dysplasia (FD) was estimated from the age at which the lump developed; however, the bone CT images did not appear to represent FD. Additionally, the images denied McCune-Albright syndrome-related lesions, as there was an absence of Café-au-lait pigmentation or endocrinal disturbances, including acromegaly or Cushing syndrome; however, the multiplicity of the skull lump never excluded the possibility of malignant lesions. As the patient and her family strongly desired a diagnosis and cosmetic improvement, the frontal lump was surgically removed. Following a bicoronal skin incision on the head, the prominence of the frontal skull was scraped using a drill. The removed

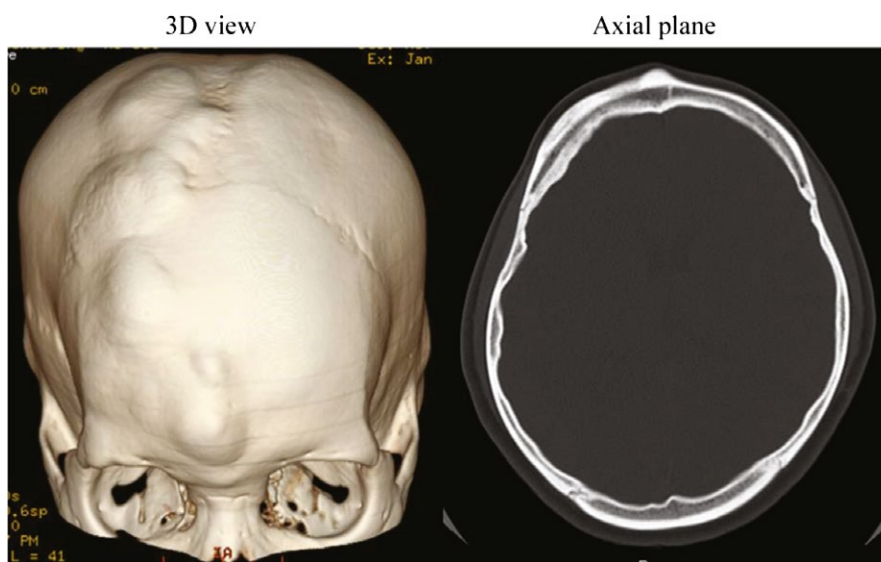


FIGURE 1 Head computed tomography scan at the preoperation. 3D view shows multiple lumps on right skull. Axial plane of bone image shows external bone hyperplasia

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bone was subjected to histopathological analysis and the lesion was diagnosed as an osteoma. Postoperatively, the lesion scraped bone has not regrown for over a year. As a skull osteoma typically develops as a single lesion, multiple hyperplasia is a rare case. Surgical resection followed by pathological study is recommended to establish a definite diagnosis and obtain esthetic improvement.³

A giant cranial osteoma generally forms as a single eminence on the parietal bone. In rare cases, a skull osteoma creates a tandem hyperplasia in the cortical bone.⁴ Thus, for multiple lesions of the cranial skull, an osteoma should be considered.

CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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