Osteomas

2

Dominique G. Poitout

Abstract

Osteomas are rare tumors; most of them are found on the cranial bone of intramembranous ossification. The treatment is usually performed by neurosurgeons.

Keywords

Osteoma • Cranial bone tumor

These are the only lesions within a strictly bone-formation process, while in all other tumors or tumor-dystrophies, hyperplasia of bone tissue constitutes an epiphenomenon. Paradoxically, the true osteomas are among the rarest bone tumors. They are found mainly in the bones of the skull and face [1, 2] (Fig. 2.1).

In the limbs, primitive osteomas are extremely rare and should not be confused with chondromas or ossified osteochondromas.

Skull and Face Osteomas

These tumors are found on the frontal, temporal, occipital bone or maxilla. These are bones of intramembranous ossification and not cartilagineous. Orbital osteomas are the most frequent. It is very difficult to differentiate primitive from secondary osteomas related to the ossification of a chondroma, trauma or infection.

The clinical history (trauma, local infection) can help to distinguish between them. The effect of gender is not important. Lesions are observed in patients mainly between 20 and 30 years of age. From the pathological point of view, it is conventional to distinguish between the compact and spongy osteomas. Compact osteomas have a very similar structure than long bones cortex.

Histology: slats are arranged more or less regularly in the vicinity of Haversian canals and they are concentric in the ebony type.

The structure of spongy osteomas resembles the epiphyseal cancellous bone. The bays of uneven thickness are filled with a medullar tissue which may be fibrous, adipose or hemorrhagic. Symptoms of osteoma are generally discreet. Trauma or infections are often revealing elements.

Superficial osteomas are quickly recognized and as a hard tumors; they have a broad, irregular surface, usually painless and not adherent to the superficial plans.

The discovery of the profound osteomas can be made very late when they have attained significant dimensions (osteoma orbital) and are the cause of nerve compression or circulatory disorders [3].

On radiographs, the osteoma appears as a compact cancellous bone mass of variable dimensions with a wide base implantation. The therapy of skull osteomas belongs mainly to the field of neurosurgical disciplines.

D. G. Poitout (✉)
Aix Marseille University, Marseille, France
e-mail: Dominique.poitout@live.fr

© Springer-Verlag London Ltd., part of Springer Nature 2021
J. Paulos and D. G. Poitout (eds.), *Bone Tumors*,
https://doi.org/10.1007/978-1-4471-7501-8_2

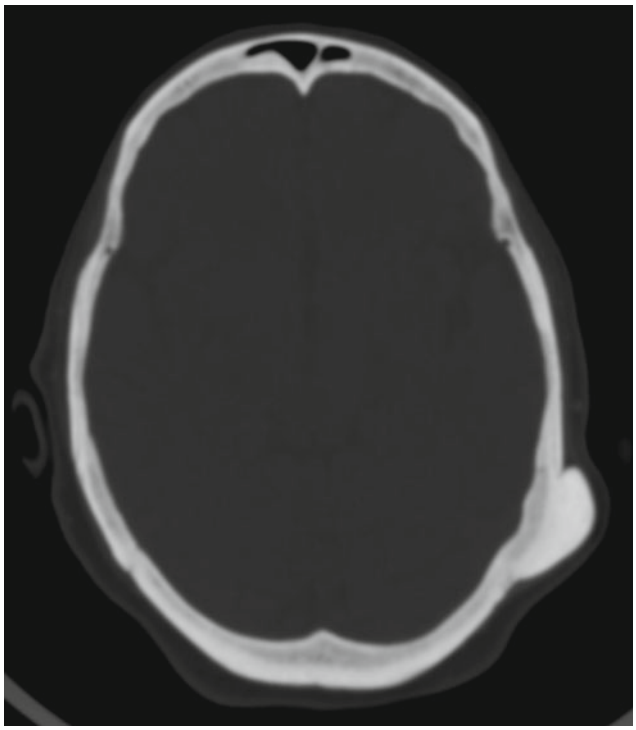

Fig. 2.1 Skull osteoma

References

1. Ishii T, Sakamoto Y, Miwa T, Yoshida K. A giant osteoma of the ethmoid sinus. J Craniofac Surg. 2018;29(3):661–2. https://doi.org/10.1097/SCS.0000000000004206.
2. Kakkar A, Nambirajan A, Suri V, Sarkar C, Kale SS, Singh M, et al. Primary bone tumors of the skull: spectrum of 125 cases, with review of literature. J Neurol Surg Part B Skull Base. 2016;77(4):319–25.
3. Satyarthee GD, Suri A, Mahapatra AK. Giant spheno-ethmoidal osteoma in a 14-year boy presenting with visual impairment and facial deformity: Short review. J Pediatr Neurosci. 2015;10(1):48–50. https://doi.org/10.4103/1817-1745.154340.