26. OSTEOBLASTOMA

Definition

It is a benign tumor composed of osteoblasts producing osteoid and bone. Its histology is usually similar to that of the osteoid osteoma, from which it is distinguished by symptoms, anatomo-imaging features and course. There are, however, transitional cases between an osteoid osteoma and an osteoblastoma (giant osteoid osteomas, rare cases of evolution from osteoid osteomas to osteoblastomas).

Epidemiology

The osteoblastoma is rare, its frequency being at least 5 times less than osteoid osteoma and 10 times less than osteosarcoma. There is an evident predilection for the male sex (2 to 1), as in the osteoid osteoma. Again, like the osteoid osteoma, the tumor is typical of childhood and youth. It is rarely observed prior to 10 and after 30 years of age.

Fig. 26-1. Sex, age and localization in 162 cases of osteoblastoma.
Localization

The osteoblastoma may occur in any area of the skeleton. Nonetheless, it is the only benign bone tumor which has evident predilection (over 40% of the cases) for the vertebral column including the sacrum. Otherwise, it is distributed, in decreasing order, in the long bones of the limbs, the pelvis, the foot. It may also be observed in the cranial bones (particularly temporal bone), and in the facial bones.

In the vertebrae, the tumor is more frequently located in the posterior arch. In the long bones, it is generally located in the meta-diaphysis; more rarely it may extend to the epiphysis (fig. 26-3). There are exceptional cases of periosteal osteoblastomas.

Compared to osteoid osteomas, osteoblastoma occurs more frequently in the spine, sacrum and pelvis, while it is rare in the midshaft of the diaphyses.