Diagnosis: Hydatid Bone Disease (Cystic Echinococcosis)

Radiographic findings of skeletal involvement in cystic echinococcosis are not specific, and the differential diagnostic is wide. It includes tuberculosis, mycoses, malignant fibrous histiocytoma, myeloma, sarcoma, metastatic disease, aneurysmal bone cyst, and giant cell tumor [1]. However, MRI allows for an interesting differentiation, showing cystic lesions and involvement of the soft tissues [1].

In this case, serological tests for hydatid disease (indirect hemagglutination and ELISA) were positive. At the time of surgery, an encapsulated soft-tissue lesion was removed, followed by curettage of the humeral diaphysis, with concomitant irrigation with a hypertonic saline solution. The diagnosis of hydatid bone disease was confirmed by histology.

Human hydatid disease is a zoonotic infection caused by the larva of *Echinococcus granulosus*. Humans are an incidental host of the larva. Infection is acquired by ingesting the egg of the cestode from infected dogs (the definitive host). The adult form of *E. granulosus* is found in the small intestines of dogs that have ingested sheep, lamb, or beef containing larval cysts [2]. The disease is ubiquitously distributed, with increasing occurrence in sheep-raising areas, including the Mediterranean area, South America, South Africa, and Australia. The prev-
The incidence of the disease has increased in Europe and North America because of immigration and tourism [2].

The liver (50%–70%) and lung (20%–30%) are the most frequent sites of hydatid cysts. Bone hydatidosis is unusual and represents ~1%–4% of cases of hydatidosis in humans [1]. Vertebrae (30%–50%) and the pelvis (15%) are the most common sites of involvement, followed by the long bones, principally the femur, tibia, and humerus. The incubation period of the disease may be >10 years. The most frequent presentations include pain, swelling (as in this case), and pathological fracture.

Relapses are frequent in cases of hydatid bone disease, despite surgical intervention. The benzimidazole derivatives (principally albendazole) are currently recommended for administration as adjuvant treatment. However, the duration of the treatment is not clearly established [3].

Albendazole must not be used in pregnancy [3]. We recommended treating this patient—after delivery—with albendazole, administered in 6 1-month courses separated by 14-day intervals [3].

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References

