

DESCRIPTION OF A CLINICAL CASE OF ANEURYSMAL BONE CYST OF THE X RIB — A RARE TUMOR OF THE CHEST CAVITY IN A CHILD EXPOSED TO TUBERCULOSIS

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Abstract

Aneurysmal bone cyst (ABC) is a benign formation with a characteristic local swelling of the bone, the formation of cystic cavities delimited by fibrous septa. Fibroblasts, giant fibroclasts and histiocytes predominate in the cellular composition of the neoplasm. The etiology and pathophysiology of ABC is not fully understood. Studies of chromosomal translocations associated with the USP6 gene have shown that ABC is a clonal neoplastic process, in which about 65-70% of patients had a USP6 rearrangement and a CDH 11-USP6 fusion, respectively.

Clinically, patients usually experience pain and swelling of varying duration at the site of the lesion. Radiologically, an eccentric radiolucent lesion with expansive bone remodeling is determined, a thin periosteal rim of subperiosteal bone is present, and the trabeculae of the cyst wall have a multilocular appearance, which is very important in the differential diagnosis between metastatic lesions, osteosarcoma, plasmacytoma, and giant cell tumors.

Treatment for ABC may include percutaneous injection of doxycycline, arterial embolization, injection of steroids or calcitonin and bisphosphonates, cryotherapy, or radiation therapy, which are all quite effective. There is also surgical treatment such as en-bloc resection of ABC.

The general prognosis for ABC is good, but in most cases, relapses of the disease were noted, which depend on the applied method of treating the lesion.

The article presents our own observation of ABC with a detailed description of the clinical case, the surgical intervention performed and the pathomorphological study. The obtained data are compared with the available information on similar cases, and methods of their diagnosis and treatment.

Conclusions. The polymorphism of clinical manifestations of ACC complicates the formation of a single treatment strategy for this pathology, however, the widespread introduction of digital data analysis methods and minimally invasive surgical techniques into clinical practice makes it possible to recommend en-bloc surgical treatment to these patients in prepared, specialized hospitals.

Key words: rare tumors, aneurysmal bone cyst, ACC, benign bone tumor, digital image analysis, en-bloc resection.

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