Bone involvement in paracoccidioidomycosis

Fernanda Lopes Franco[1], Bruno Niemeyer[1],[2],[3] and Edson Marchiori[3]

[1]. Departamento de Radiologia, Hospital Casa de Portugal, Rio de Janeiro, RJ, Brasil.
[3]. Departamento de Radiologia, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brasil.

An 8-year-old immunocompetent boy presented with fever, adynamia, hepatosplenomegaly, and scattered erythematous pustular lesions on his upper limbs (Figure 1A) that occurred in the last three months and recently evolved to pain and functional inability of his left hand. Computed tomography showed multiple well-delimited osteolytic lesions without sclerotic halo or contrast enhancement affecting his left ulna, metacarpals, and phalanges (Figures 1B-D), with no evidence of periosteal reaction. Histopathological analysis of the bone lesion on the second right metacarpal revealed fungal elements compatible with Paracoccidioides brasiliensis. Treatment was initiated with itraconazole (5 mg/kg/day orally), and the patient showed progressive clinical improvement.

Osteoarticular involvement by paracoccidioidomycosis results from lymphohematogenous dissemination, with a primary focus in the lungs, predominantly in men aged 20-40 years1-3. Clinically, most cases are asymptomatic, but patients may present with pain, edema, and heat sensation in the lesion area.

The disease can affect any bone, but most frequently affects the clavicle, ribs, scapula, and sternum; although rare, lesions can develop in the radius and phalanges1-3. On the long bones, lesions usually originate in the medullary cavity of the diaphysis and extend to the metaphysis and epiphysis, which are the most affected sites owing to their greater vascularization1,3. The commonest radiographic characteristics are distinctly outlined lytic lesions with no marginal sclerosis and little or no periosteal reaction, similar to our case1,3. The most frequently considered differential diagnoses are neoplasms, bone metastases, histiocytosis, lymphoproliferative disorders, and infections caused by other agents, including sporotrichosis.

ACKNOWLEDGMENTS

We thank the institutions that provided technical support for the development and implementation of this study.

Conflict of Interest

The authors declare that there is no conflict of interest.

REFERENCES