The differential diagnosis is broad; however, when such findings are seen in a very young individual and in the suprasellar space, the main differential diagnoses are craniopharyngiomas, astrocytomas, germinomas, Langerhans cell histiocytosis, and vasculitis accompanied by myocardial infarctions[8].

Suprasellar tuberculoma is treated with a specific tuberculosis treatment regimen, consisting of two months of rifampin, isoniazid, pyrazinamide, and ethambutol, followed by seven months of rifampin and isoniazid accompanied by corticosteroids[10]. Decompressive surgery may be required in cases of hydrocephalus or compression of vital structures, such as the optic chiasm[5,7].

In conclusion, although rare, a diagnosis of tuberculosis should be considered in suprasellar lesions, especially when there is annular enhancement on MRI, in areas endemic for the disease.

REFERENCES

1. Niemeyer B, Muniz BC, Gasparetto EL, et al. Congenital Zika syndrome and neuroimaging findings: what do we know so far? Radiol Bras. 2017;50:314–22.
2. Duarte SBL, Oshima MM, Mesquita JVA, et al. Magnetic resonance imaging findings in central nervous system cryptococcosis: comparison between immunocompetent and immunocompromised patients. Radiol Bras. 2017;50:359–65.
3. Leite CC, Valente KDR, Fiore LA, et al. Proton spectroscopy of the thalamus in a homogeneous sample of patients with easy-to-control juvenile myoclonic epilepsy. Radiol Bras. 2017;50:279–84.
4. Jugpal TS, Dixit R, Garg A, et al. Spectrum of findings on magnetic resonance imaging of the brain in patients with neurological manifestations of dengue fever. Radiol Bras. 2017;50:285–90.
5. Joshi VP, Agrawal A, Mudkanna A, et al. Supra-sellar tubercular abscess. Asian J Neurosurg. 2016;11:175–6.
6. Singh J, Kharosekar H, Vernon Velho MC. An unusual intraventricular lesion – septum pellucidum tuberculoma. J Spine Neurosurg. 2014;3:1–3.
7. Garg K, Gurjar H, Chandra PS, et al. Suprasellar tuberculoma. Br J Neurosurg. 2014;28:562–3.
8. Behari S, Shinghal U, Jain M, et al. Clinicoradiological presentation, management options and a review of sellar and suprasellar tuberculomas. J Clin Neurosci. 2009;16:1560–6.
9. Kim JK, Jung TY, Lee KH, et al. Radiological follow-up of a cerebral tuberculoma with a paradoxical response mimicking a brain tumor. J Korean Neurosurg Soc. 2015;57:307–10.
10. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Manual de recomendações para o controle da tuberculose no Brasil. Brasília: Ministério da Saúde; 2011.

Bernardo Carvalho Muniz[1,a], Bruno Niemeyer de Freitas Ribeiro[1,b], Nina Ventura[1,c], Emerson Leandro Gasparetto[1,d], Edson Marchiori[2,e]

1. Instituto Estadual do Cérebro Paulo Niemeyer – Departamento de Radiologia, Rio de Janeiro, RJ, Brazil. 2. Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil.

Correspondence: Dr. Bernardo Carvalho Muniz. Instituto Estadual do Cérebro Paulo Niemeyer – Departamento de Radiologia. Rua do Resende, 156, Centro. Rio de Janeiro, RJ, Brazil, 20231-092. Email: bernardocmuniz@yahoo.com.br.

a. https://orcid.org/0000-0003-1483-2758; b. https://orcid.org/0000-0002-1936-3026; c. https://orcid.org/0000-0003-2364-1612; d. https://orcid.org/0000-0001-5764-6724; e. https://orcid.org/0000-0001-8797-7380.

Received 28 May 2017. Accepted after revision 28 July 2017.

http://dx.doi.org/10.1590/0100-3984.2017.0091

Tuberculosis of the radius in a child

Dear Editor,

A 9-month-old male infant was admitted to the emergency room after trauma to the left wrist. An X-ray of the forearm showed fracture of the distal radius. The limb was immobilized, and the patient was referred for outpatient follow-up. One month later, the patient presented with weight loss and bulging of the region after early removal of immobilization. On physical examination, the distal third of the left forearm presented edema and tenderness, with no joint locking of the wrist. The patient underwent another X-ray (Figure 1A) and a magnetic resonance imaging (MRI) scan (Figures 1B, 1C and 1D), followed by immobilization of the forearm with a sugar-tong splint and administration of oral analgesics. The patient was again referred for outpatient follow-up. The pathology study was conclusive for bone tuberculosis, and the patient was started on a therapeutic regimen.

Two billion people are currently infected with *Mycobacterium tuberculosis*, and 8–9 million of those people have or will develop active tuberculosis[1]. Tuberculosis is a significant

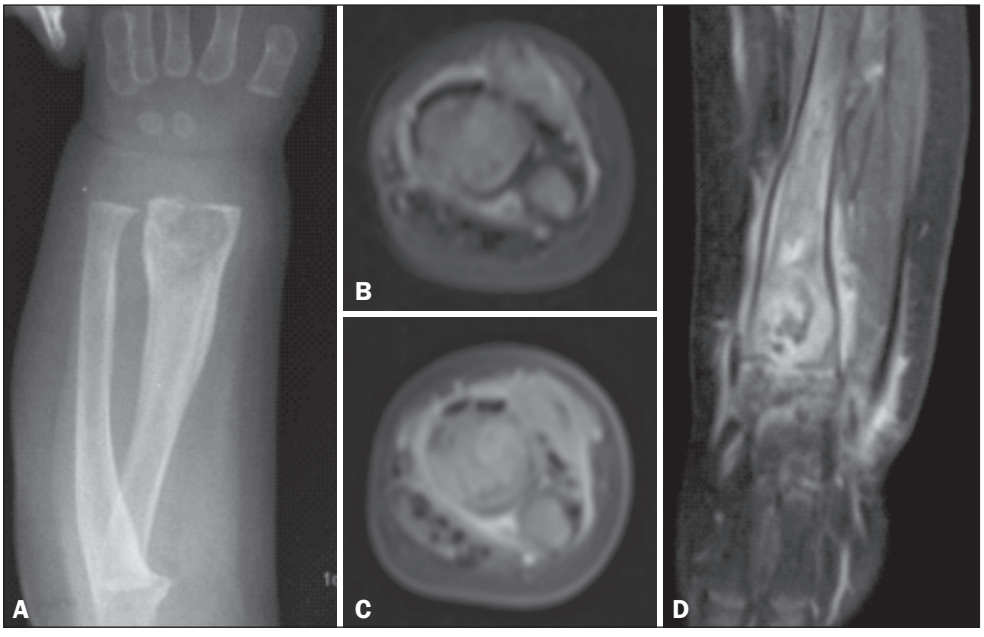

Figure 1. A: Anteroposterior X-ray of the forearm. Round osteolytic formation with partially defined margins, cortical irregularity, and periosteal reaction in the distal third of the radius. **B:** Axial proton density-weighted MRI. Expansile ill-defined solid heterogeneous lesion in the bone marrow of the distal metaphysis of the radius. Note the linear image with a hyperintense signal in the metadiaphysis and cortical discontinuity suggestive of fracture. **C:** Contrast-enhanced axial T1-weighted MRI with fat suppression. The signal intensity is similar to that of cartilaginous tissue, with hyperintense foci. **D:** Contrast-enhanced coronal T1-weighted MRI with fat suppression. Note that the lesion focally extends beyond the physis and infiltrates the perilesional soft tissue, with significant gadolinium enhancement, persistence of small loculated lesions with hypointense signals, and fluid infiltration, as well as enhancement of the joint spaces, muscle, and subcutaneous tissue.

health problem in low- and middle-income countries. In 2012, there were 71,230 new cases of tuberculosis reported in Brazil, with an incidence rate of 36.7/100,000 population for all forms of the disease[1–3]. In that same year, in the state of Rio de Janeiro alone, 10,871 new cases were reported[1].

After entering the body through the airways, *M. tuberculosis* can disseminate to any organ, especially if there is weakening of the immune response[4]. Diagnosing the extrapulmonary forms of the disease is more difficult due to the location of the lesions and because they are paucibacillary, bacteriological confirmation being obtained in only approximately one fourth of the cases. Imaging findings are usually nonspecific[4].

Bone tuberculosis is an uncommon disease, affecting 10–15% of all patients with tuberculosis[5–7]. Bone and joint involvement is more common in pediatric and elderly patients. Although such involvement is usually secondary to hematogenous dissemination, it may also occur through lymphatic or contiguous spread[4,5].

Tuberculosis can affect the entire skeleton. The most common site is the spine, whereas the radius is rarely affected. A common clinical manifestation of bone tuberculosis is monoarticular lesion, trauma involving the affected joint often being reported. Radiographic findings include osteolytic lesions with irregular borders, surrounded by areas of sclerosis. Findings of bone lesions with cystic cavities on X-rays are nonspecific because they mimic pyogenic osteomyelitis, fungal infection, metastasis, telangiectatic osteosarcoma, aneurysmal cyst, sarcoidosis, eosinophilic granuloma, and chordoma[8–10]. Establishing a diagnosis of bone tuberculosis is difficult mainly because of the indolent nature and nonspecific findings of the condition, which lead to an increase in morbidity and poorer prognoses[4,6,11].

In conclusion, bone tuberculosis at uncommon sites is difficult to diagnose and can often be misdiagnosed as a tumor, because the clinical manifestations and imaging findings are similar. The physician should always bear in mind the possibility of *M. tuberculosis* infection, especially in areas endemic for the disease, and should be cautious in regard to the differential diagnoses, determining whether or not there is a need for biopsy, given that delayed treatment and overtreatment can both cause harm to the patient.

REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Panorama da tuberculose no Brasil – indicadores epidemiológicos e operacionais. Brasília: Ministério da Saúde; 2014.
2. Hino P, Santos CB, Villa TCS, et al. O controle da tuberculose na perspectiva da vigilância da saúde. Esc Anna Nery. 2011;15:417–21.
3. Gupta P, Prakash M, Sharma N, et al. Computed tomography detection of clinically unsuspected skeletal tuberculosis. Clin Imaging. 2015;39:1056–60.
4. Lopes JA, Capone D, Mogami R, et al. Tuberculose extrapulmonar: aspectos clínicos e de imagem. Pulmão RJ. 2006;15:253–61.
5. Santos FCF, Nascimento ALA, Lira LAS, et al. Bone tuberculosis: a case report on child. Rev Soc Bras Med Trop. 2013;46:249–51.
6. Ye C, Hu X, Yu X, et al. Misdiagnosis of cystic tuberculosis of the olecranon. Orthopade. 2017;46:451–3.
7. Prakash J, Aggarwal S, Mehtani AK. Primary tuberculosis of the clavicle. Orthopedics. 2014;37:e879–84.
8. Sharma R, Gupta P, Mahajan M, et al. X-ray and computed tomography findings in macrodystrophia lipomatosa of the foot with secondary osteoarthritic changes diagnosed in an elderly female: a case report. Radiol Bras. 2017;50:132–4.
9. Reis LM, Duarte ML, Alvarenga SB, et al. Sarcoidosis: when the initial manifestations are musculoskeletal symptoms. Radiol Bras. 2018;51:132–3.
10. Costa FM, Canella C, Vieira FG, et al. The usefulness of chemical-shift magnetic resonance imaging for the evaluation of osteoid osteoma. Radiol Bras. 2018;51:156–61.
11. Dhillon MS, Aggarwal S, Prabhakar S, et al. Tuberculosis of the foot: an osteolytic variety. Indian J Orthop. 2012;46:206–11.

Vanessa Maria Terra Gomes[1,a], Teresa Cristina Sarmet dos Santos[1,b], Luis Alcides Quevedo Cañete[1,c], Caroline Figueira[1,d], Rebeca Albuquerque[1,e]

1. Complexo Hospitalar de Niterói (CHN), Niterói, RJ, Brazil.

Correspondence: Dra. Vanessa Maria Terra Gomes. Complexo Hospitalar de Niterói. Rua La Salle, 12, Centro. Niterói, RJ, Brazil, 24020-096. Email: nessa_terra@hotmail.com.

a. https://orcid.org/0000-0001-7883-8821; b. https://orcid.org/0000-0002-0032-1328; c. https://orcid.org/0000-0001-6265-5342; d. https://orcid.org/0000-0002-3403-2153; e. https://orcid.org/0000-0002-4682-7631.

Received 7 July 2017. Accepted after revision 11 August 2017.

http://dx.doi.org/10.1590/0100-3984.2017.0114

Congenital lobar emphysema

Dear Editor,

A 41-day-old male infant was born by cesarean section, without complications, at 38 weeks of gestation. The results of the prenatal examinations had been normal, and postnatal nutrition was exclusively from breastfeeding. He was referred to our facility with a history of progressive respiratory distress, which had started on postnatal day 7 and had worsened three days prior to the consultation. He was afebrile. The parents reported having previously sought treatment more than once and having received a prescription for nebulization, which resulted in partial improvement of the condition. The initial physical examination revealed subcostal retraction, diminished breath sounds on the right side and diffuse wheezing on the left. The respiratory rate was 72 breaths/min, and the oxygen saturation on room air was 96%. A chest X-ray (Figure 1A) showed right-sided hyperlucency, with a mediastinal shift to the left. Computed tomography (CT) revealed hyperinflation of the middle lobe parenchyma, the expansion of which was displacing the mediastinum to the left (Figures 1B, 1C, and 1D). The patient was treated with a nebulized bronchodilator and oxygen therapy, which resulted in clinical improvement and stabilization of the condition. At five days after admission, he was asymptomatic and was discharged to outpatient follow-up.

Congenital diseases have been the subject of recent publications in the area of radiology[1–4]. Congenital lobar emphysema (CLE) is a rare pulmonary malformation whose main cause is probably developmental anomalies of the bronchial cartilage. Less common causes include extrinsic airway compression, usually caused by idiopathic bronchial stenosis, mucus plugging, or vascular malformations. However, in approximately half of all cases, the cause goes undetermined[5–10].

CLE is characterized by progressive lobar hyperinflation, caused by air trapping in a collapsed airway, resulting in distension of the lobe and a mass effect that compresses the other lobes and shifts the mediastinum[6,7]. There is no alveolar destruction[11]. CLE involves the left upper lobe in 42.2% of cases, the right middle lobe in 35.3%, the right upper lobe in 20.7%, and the lower lobes in less than 1.0%[11,12]. Its clinical presentation ranges from mild respiratory dysfunction to acute respiratory failure. Most patients are diagnosed within the first month of life, showing a moderate degree of respiratory dysfunction in the immediate postnatal period, and present symptoms before