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.

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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

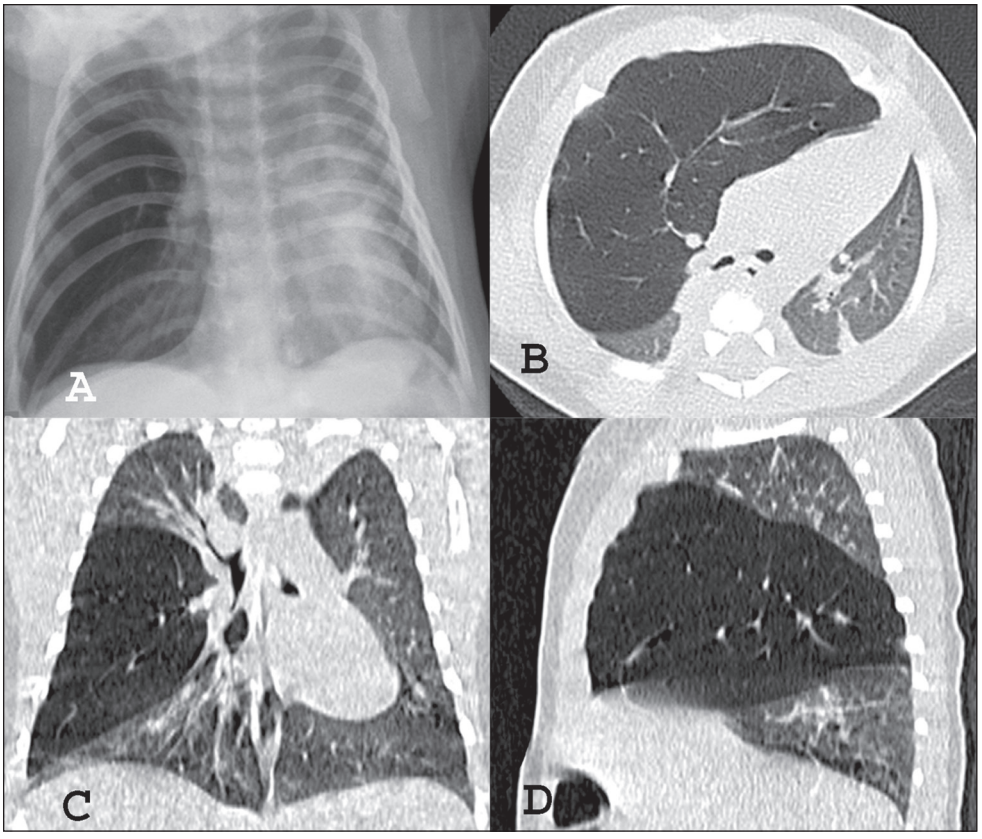

Figure 1. Chest X-ray in anteroposterior view (**A**) showing hyperlucency of the right hemithorax with a mediastinal shift to the left. Noncontrast chest CT, in axial, coronal, and sagittal slices (**B**, **C**, and **D**, respectively), showing hyperinflation of the middle lobe and expansion of the mediastinal structures.

reaching six months of age, with progressive worsening due to increased pulmonary hyperinflation. Some patients remain asymptomatic for years[5,10,11].

A diagnosis of CLE is generally suspected in a child with respiratory failure in whom a chest X-ray reveals hyperinflation of a lung lobe, with or without contralateral pulmonary herniation, and a contralateral mediastinal shift[7,10]. CT is an excellent imaging modality for excluding diagnoses of a subjacent hilar mass and alterations in the bronchial lumen. In addition, it can accurately delineate and localize the lesion, which is particularly useful for preoperative evaluation. CT usually shows hyperinflation of a lung lobe and attenuation of the bronchovascular bundle, which runs along the periphery of the expanded alveoli[10,11]. The differential diagnosis includes pneumatocele, pneumothorax, pulmonary atelectasis, and pulmonary hypoplasia.

CLE is generally considered an indication for surgery, lobectomy being the procedure of choice in symptomatic patients[5,10]. For patients who exhibit mild respiratory distress, conservative treatment is an option[3].

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