

Pleuropulmonary blastoma extending to the left atrium

Blastoma pleuropulmonar extendido a aurícula izquierda

Leidelén Esquivel Sosa[✉], MD; Yagima Fleites García, MD; and Yurizandra Jiménez González, MD

José Luis Miranda Pediatric Teaching Hospital. Santa Clara, Villa Clara, Cuba.

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The case of a 16-month-old male patient who was treated for right basal pneumonia is reported. Physical examination revealed the absence of vesicular murmur in the lung base, which was not solved with conventional treatment.

The thoracic and abdominal ultrasound showed, at the posterior costodiaphragmatic recess, a thick predominantly hypoechoic image, with areas of lower echogenicity inside. It was polylobulated, with well-defined contours, measuring 102x68 mm, without calcifications. It extended into the left atrium, occupying it almost entirely, and prolapsed through the mitral valve with the heart contractions (**Figure 1. A and B**).

A computed tomography was performed after the administration of iodinated contrast and showed the presence of a polylobulated hyperdense image, between 30 and 60 HU, occupying the right lung base. It entered 50 mm at the level of the left atrium, reached the mitral valve, and caused a thinning of the atrial wall, without showing infiltration (**Figure 2**); it

was also in intimate contact with the esophagus, the descending thoracic aorta and the vertebral bodies D₄-D₁₀.

A biopsy sample was taken in our hospital showing the presence of a pleuropulmonary blastoma, so the patient was referred to the national reference center (William Soler Hospital) where underwent 2-stages surgery with total tumor resection. The patient had a favorable outcome, with associated chemotherapy, and the biopsy of the surgical specimen confirmed the diagnosis; therefore follow-up by the oncology outpatient department was continued.

Pleuropulmonary blastoma is an extremely rare embryonal tumor. It is classified into Type I (purely lung cystic neoplasm, with subtle malignant changes, that typically occurs in the first 2 years of life), Type II (a cystic and solid neoplasm) and Type III (a purely solid neoplasm that occurs in children between 3 and 4 years of age). Approximately 30% of pleuropulmonary blastomas occur in children with cystic adenomatoid disease. A link with pulmonary sequestration and bronchogenic cyst has also been stated. Nearly 300 cases have been reported in the literature, seven of which had vascular extension, embolism, or both. The extension of the tumor through the great vessels and the heart is a rare but important complication.

✉ L Esquivel Sosa
Calle 1ra, e/ Unión y Río, Reparto
Ramón Ruiz del Sol. Santa Clara, CP 50200
Villa Clara, Cuba
E-mail address: leidelen@hped.vcl.sld.cu



Figure 1

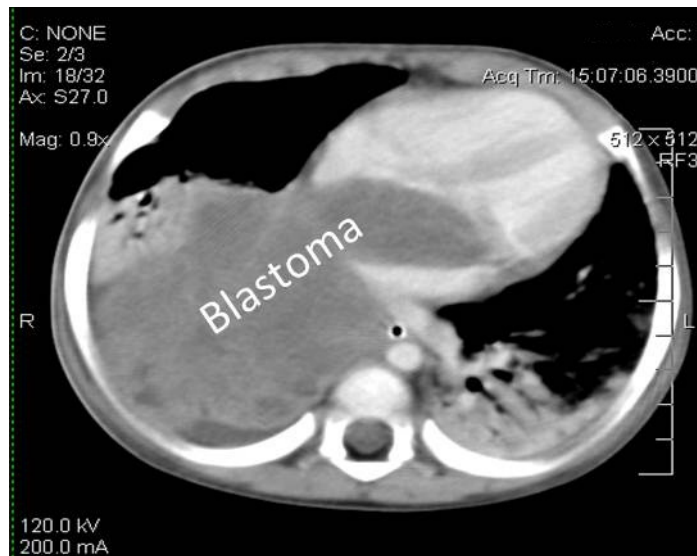


Figure 2