Recurrent Spontaneous Pneumothorax Hiding a Rare Pulmonary Tumor in a 4-Year-Old Girl

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A four-year-old, white female child was referred to the emergency department for slight chest pain, cough, and a history of low-grade fever in the previous days. Chest radiography showed a hypertensive right pneumothorax associated with complete atelectasis of the lung. A chest tube was positioned with complete resolution of pneumothorax, and the patient was discharged after 5 days. Ten days later, the patient was seen again in the emergency department with cough and dyspnea. Chest radiography revealed a new episode of right hypertensive pneumothorax (Fig 1), and a chest tube was forthwith positioned. A computed tomographic scan was then performed showing a multilocular aerial cyst (Fig 2A) with a caudal solid parenchymatous part (Fig 2B) arising from the lower and middle lobe.

After multidisciplinary discussion, the patient underwent surgical intervention performed with a right thoracotomy; two aerial cysts were found arising from the middle and lower lobes. Inside the larger one, white-yellow, soft parenchymatous areas were found. Frozen section specimen revealed malignant spindle cells. A wide wedge resection of lower and middle lobes was performed (Fig 3). The patient recovered with an uneventful postoperative course. The final diagnosis was type II pleuropulmonary blastoma (Fig 4; hematoxylin and eosin stain, ×10), and the patient was referred to the pediatric oncology department.