

Giant Cystic Chondroid Hamartoma

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Abstract

Pulmonary hamartoma is the most common benign neoplasm of the lung. Its size is usually smaller than 4 cm, and a pulmonary hamartoma larger than 10 cm is rare. Pulmonary hamartoma with air-filled cystic areas is also a rare form. Since it is a rare condition, in this article, we reported a case of giant pulmonary cystic hamartoma in a 49-year-old patient admitted with cough and breathing difficulty.

Keywords: Giant, cystic, chondroid, pulmonary hamartoma

Özet

Pulmoner hamartom, akciğerin en sık görülen iyi huylu tümörüdür. Boyutu genellikle 4 cm'den küçüktür ve 10 cm'den büyük pulmoner hamartom nadirdir. Hava dolu kistik alanlar içeren pulmoner hamartom nadir görülen bir formdur. Bu yazıda; nadir görülmesi nedeniyle, öksürük ve nefes darlığı şikayeti ile başvuran 49 yaşındaki dev pulmoner kistik hamartom olgusu sunulmuştur.

Anahtar Kelimeler: Dev, kistik, kondroid, pulmoner hamartom

INTRODUCTION

A hamartoma is a benign neoplasm that consists of an abnormal quantity, mixture, and arrangement of the tissues that are normally found in the organ. Pulmonary hamartoma (PH) is the most common neoplasm in the lung; however, its cystic form is rare (1). Tumor size is usually smaller than 4 cm. Pulmonary hamartomas range in size from 1 cm to 8 cm in diameter in different series (2). A pulmonary hamartoma of larger than 10 cm in size is very rare (3). We report a case of giant cystic PH, which is a rare type of PH.

CASE PRESENTATION

A 49-year-old female was admitted to our hospital with cough and dyspnea for 1 year. On physical examination, breath sounds were absent in the right lower lung field. Chest radiography demonstrated a huge cystic mass in the right hemithorax and computed tomography of the chest revealed a large cystic and solid mass in the right lower lobe of the lung (Figure 1). The tumor was removed by wedge resection through a right lateral thoracotomy under the impression of ruptured hydatid cyst.

On gross examination, a well-circumscribed, lobulated, large, solid, and cystic mass was found. Its size was 14x10.5x8.5 cm (Figure 2). Microscopically, the solid component was composed of cartilaginous and adipose tissue. The cystic and cleft-like areas were lined by ciliated columnar epithelium, and there were also papillary projections through the cleft-like areas (Figure 3, 4). The patient was diagnosed as giant cystic chondroid PH. No signs of recurrence were detected for 1 year after the operation.

DISCUSSION

Pulmonary hamartoma is the most common benign tumor of the lung, with an incidence of 0.025%-0.32% according to varied series (4). Giant cystic chondroid hamartoma occurs generally in adults and rarely in children (5). Pneumothorax and malignant degeneration can occur with the tumor as a complication (6, 7). In this case, no complications were observed. Congenital abnormalities and benign and malignant tumors can be associated with PH (8). No associations were found in this case. Most PHs are parenchymal (peripheral) tumors, and only 10% of PHs are endobronchial tumors (4). Most PHs have a large

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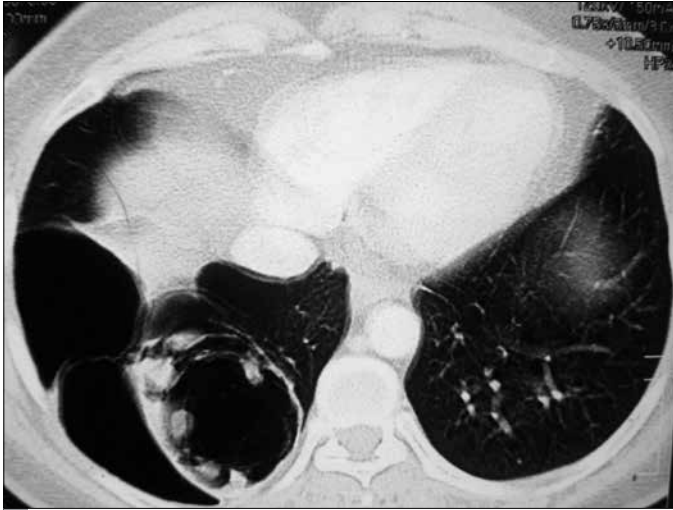


Figure 1. A large cystic and solid mass in the right lower lobe of the lung with the chest computed tomography

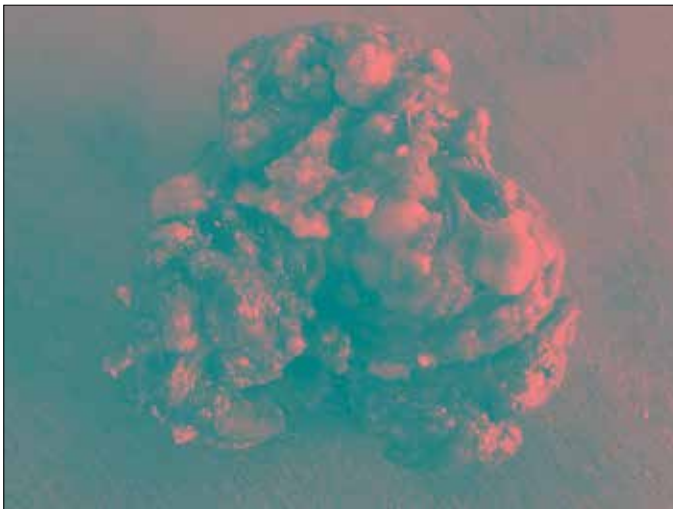


Figure 2. A well-circumscribed, lobulated, large solid, and cystic mass is shown.

cartilaginous component and are called chondromatous hamartoma. Other subtypes are leiomyomatous, lymphangiomyomatous, adenofibromatous, and fibroleiomyomatous hamartomas. Their size may begin to increase slowly at a rate of 3.2 ± 2.6 mm per year (9). Pulmonary hamartomas bigger than 10 cm and cystic type PHs are extremely rare (3). Cysts are air-filled cystic areas, and why they occur in hamartomas is unknown. There are several hypotheses to explain this development. One of them is a check-valve mechanism owing to partial obstruction of the bronchioles by the mass. The route of air entry into the tumor might result in gradual expansion of small epithelial-lined tubules resembling bronchioles (10). But, if this hypothesis is true, there must be an airway connection to cystic areas. In our study, this connection was not detected. The other hypothesis is that cleft-like spaces may become cysts during the growth of the tumor (1).

Giant cystic chondroid PH is an unusual presentation of PH. This form is rare but may put in the differential diagnosis of large cystic pulmonary tumors and tumor-like conditions.

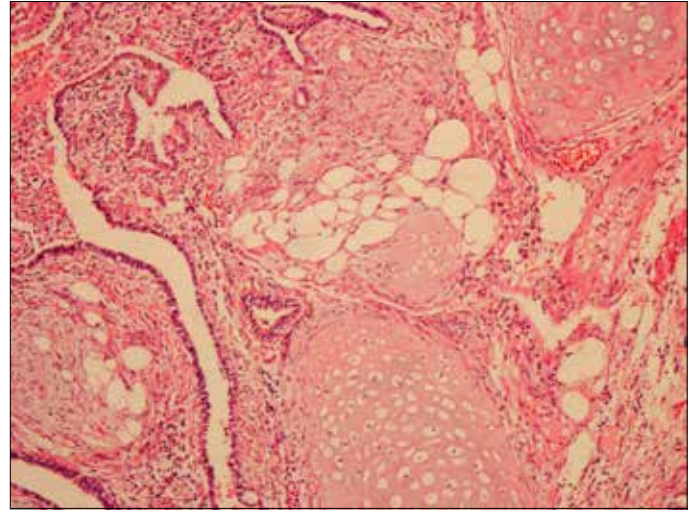


Figure 3. The cysts and cleft-like spaces are lined by ciliated columnar epithelium, mature adipose tissue, and mature cartilage (HEX100).

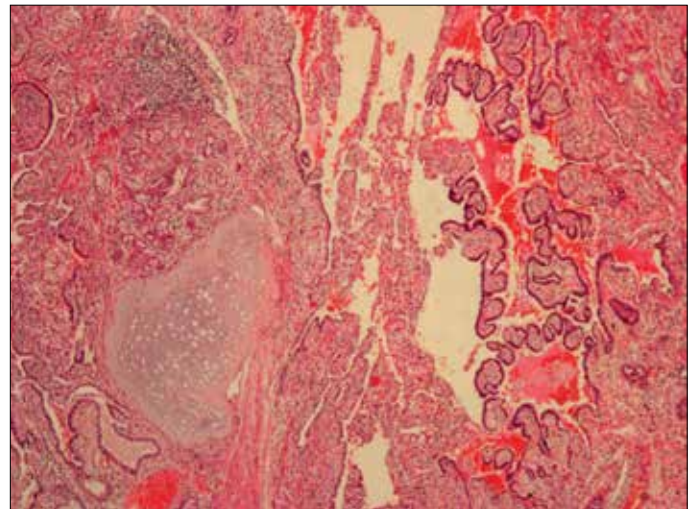


Figure 4. There are islands of mature cartilage, villus-like papillary projections, and cystic space (HEX40).

Etik Komite Onayı: N/A.

Hasta Onamı: Yazılı hasta onamı bu olguya katılan hastadan alınmıştır.

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