Images in cardio-thoracic surgery

Mediastinal thoracic duct cyst adjacent to left pericardium

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An asymptomatic 23-year-old man was referred with a cystic mass on chest computed tomography (CT) imaging (Fig. 1). The patient underwent an uncomplicated thoracoscopic resection. There was no visible connection to the adjacent tissue. By immunochemical staining, the cyst was confirmed to be a thoracic duct cyst (Fig. 2).

Fig. 1. A chest computed tomography showed a 5.5 × 4.5 cm sized, homogeneous, non-enhancing cystic mass with a well-defined border, situated beside the left pericardium superior to the diaphragm (A, B). Thoracoscopic view of the cyst, located at the left cardiophrenic angle which was adherent to the diaphragm and pericardium anterior to the phrenic nerve. The wall was smooth and somewhat transparent (C). The retrieved cyst filled with saline (D) (P: pericardium, L: collapsed lung, and Arrow: phrenic nerve).

Fig. 2. Pathologic findings. (A) The cyst wall consists of fibrous connective tissue and small foci of lymphoid cell aggregation (×20). (B) The cyst is lined by monolayer cells on its luminal surface (×200). (C and D) The lining cells show an immunoreactivity for CD31 (C) and CD34 (D) (×200).

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