Spontaneous chylothorax: Two case reports.

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Introduction:
Chylothorax is defined as the collection of lymph, originating from the intestinal system, in the pleural space. In most cases a chylothorax develops secondary to a lesion of the lymphatic ducts such as caused by trauma, surgery (nearly 50%) or malignancies (nearly 17%). The accumulation of chyle without an obvious cause is considered as being spontaneous .

We report two cases of a spontaneous chylothorax. Both patients were referred to us by other departments within the Inselspital, where they had been admitted for other diagnoses.

Case 1
The first patient, a 36-year-old male presented with an acute interstitial pneumopathy. During bronchoscopy chyle was revealed in the bronchial system. A lymphangiography showed a lymphatic malformation that was created by a communication between the thoracic duct, a preaortal lymphatic conglomerate, and the pulmonary lymphatic vessels (figure 1). Through this malformation lymph leaked into the bronchial system.
The leak was successfully treated through ligation of the thoracic duct and all of its collaterals and resection of the preaortal lymphatic conglomerate by thoracotomy.

Highlighted in yellow the thoracic duct and diffuse contrast uptake (Lipidol) in the lower left lobe after lymphangiography. →

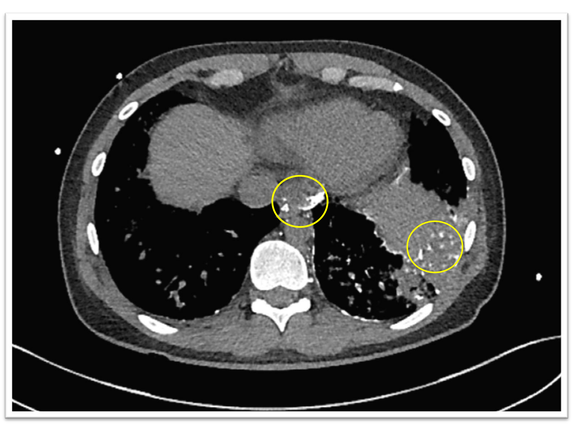
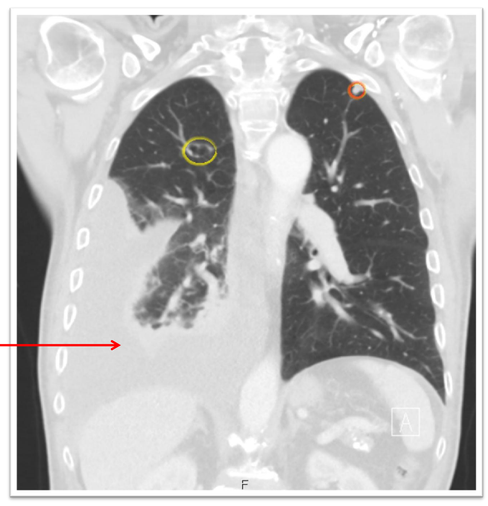


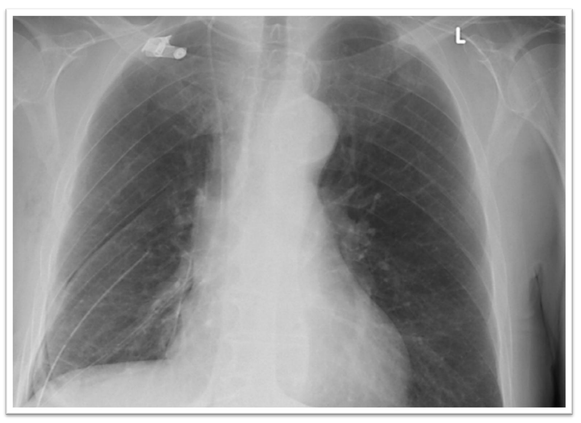
Figure 1

Case 2
The second patient, a 67-year-old male was diagnosed with rheumatoid arthritis a month prior to the detection of chyle in the pleural space. He presented nodular formations (highlighted in red figure 2) of the visceral pleura with a significant chylous pleural effusion, as well as right hilar lymphadenopathies and cavernous formations (highlighted in yellow figure 2). A pleural biopsy and clipping of the thoracic duct via thoracotomy was performed. Good clinical recovery and symptom alleviation were observed (figure 3).



CT scan with chylothorax of the right hemithorax (arrow).

Figure 2



X-Ray after surgical intervention with nearly complete re-expansion of the right lung.

Figure 3

Conclusion:
Spontaneous chylothorax can have rare causes. Ways to treat it can be found using different diagnostic approaches as shown in the first case. In the second case the underlying cause could not be entirely identified. Ligation of the Dc. thoracicus as done here will be the method of choice in these cases.