Dyspnea after a greasy meal

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Abstract

A healthy 72-year-old man presented with dyspnea and dysphagia after saturated fat meals. The investigation showed a mediastinal mass causing compression of the trachea and main carina. Endobronchial ultrasound guided fine needle-aspiration revealed a milky fluid with an high concentration of triglycerides and chylomicra. The diagnosis of a thoracic duct cyst was made. Clinical stability was achieved through a conservative treatment since the patient refused other invasive therapeutic procedures.

Case Report

A healthy 72-year-old man was referred with a four-month history of dyspnea and dysphagia. He experienced these symptoms 2-3 hours after an high triglycerides diet (e.g. butter, cheese and cream). A thorax computed tomography (CT) scan revealed a mediastinal image causing compression of the lower posterior third of the trachea and main carina (Figure 1). Bronchoscopy showed a bulky main carina and reduction of the left and right main bronchi lumen. Endobronchial ultrasound (EBUS) confirmed the presence of an anecogenic Doppler negative structure (Figure 2A). EBUS fine-needle aspiration was performed with normalization of the lumen, without complications. The milky fluid analysis (Figure 2B) revealed a high concentration of triglycerides (287 mg/dL) and the presence of chylomicrons. A clinical diagnosis of thoracic duct cyst was made. The patient refused surgical treatment. A fat free diet was recommended with absence of symptom recurrence.

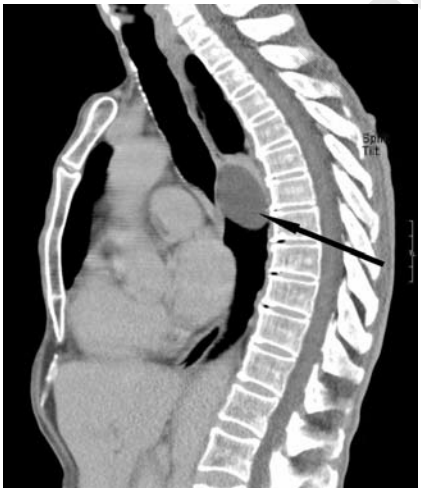

Figure 1. Sagittal thorax computed tomography scan showing a 48 mm oval, well-circumscribed, homogeneous opacity in the posterior mediastinum (arrow).

Discussion

The thoracic duct cyst is a lymph-filled collection devoid of any epithelial lining. Its etiology is not fully understood, although trauma, congenital weakness and inflammatory processes have been suggested. These cysts can develop along the thoracic duct from the cysterna chyli in the abdomen to the insertion within the subclavian and internal jugular veins in the neck. A mediastinal location is exceedingly rare. These cysts show no age or gender prevalence. They are generally asymptomatic but when symptoms are present – dyspnea, chest discomfort, back pain, nonproductive cough or dysphagia – they are usually secondary to the compression of adjacent structures and often aggravated by food intake.[1]

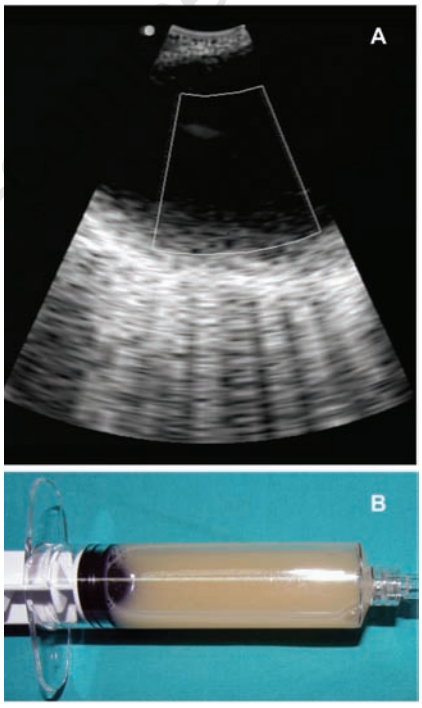

Figure 2. (A) Endobronchial ultrasound confirmation of an anecogenic Doppler negative structure. (B) Milky fluid (lymph) obtained by endobronchial ultrasound guided fine-needle aspiration.

If the diagnosis of a thoracic duct cyst can be made preoperatively, observation may be appropriate as there is no malignant potential. Surgical resection is usually recommended to alleviate symptoms, prevent complications resulting from rupture/infection and to achieve a pathological diagnosis. Recently, an alternative EBUS-guided ethanol sclerotherapy has been presented.[2]

Conclusions

The case report we described shows a thoracic duct cyst. It is a rare disease and it should be considered in the differential diagnosis for a mediastinal mass; although surgical resection is the definitive treatment, EBUS can be suggested as a diagnostic and therapeutic procedure.

References

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