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**Clinical Image** 



A 'Pseudochylopneumothorax' at Presentation of Mesothelioma Un 'pseudoquiloneumotórax' como presentación de un mesotelioma Maged Hassan<sup>a,b,\*</sup>, Cyrus Daneshvar<sup>a</sup>, John P. Corcoran<sup>a</sup>

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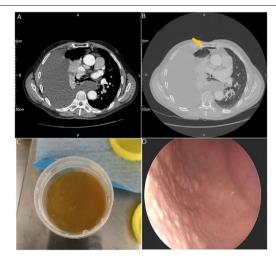


Fig. 1. Panels A and B show the chest computed tomography scan demonstrating a large pleural effusion with a small apical pneumothorax (arrow) with no evidence of pleural thickening. Panel C shows the opaque deep yellow pleural aspirate. Panel D shows thoracoscopic view of diffuse micro nodularity of the parietal pleura.

A 59 year-old male patient presented to the emergency department with progressive breathlessness. He worked as a ship builder. A chest radiograph revealed a large right-sided pleural effusion and a computed tomography (CT) scan (panel A and B) showed in addition to the effusion a small pneumothorax (arrow in panel B). Thoracentesis revealed an opaque deep yellow fluid that exhibited glossy whorls (panel C) suggesting a possible pseudochylothorax. Fluid biochemistry showed an exudate with triglyceride 18 mg/dL and cholesterol 182 mg/dL and cytology was negative for malignant cells. At medical thoracoscopy diffuse micro-nodularity of the parietal pleura was noted (panel D) and pleural biopsies showed infiltration by poorly differentiated epithelioid cells. The immunohistochemistry was positive for calretinin and WT1 and negative for TTF1, CEA and BEREP4 confirming a diagnosis of epithelioid malignant pleural mesothelioma.

Pseudochylothorax describes effusions rich in cholesterol crystals. It usually has a milky appearance similar to chylous effusions but it occasionally exhibits a deep yellow 'opalescent' appearance which is likened to 'motor oil'.<sup>1</sup> A fluid cholesterol: triglyceride ratio >1 has the highest sensitivity for diagnosis.<sup>1</sup> Common causes for pseudochylothorax are rheumatoid and tuberculous pleuritis

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but a few cases of pleural adenocarcinoma manifesting with pseudochylothorax exist in literature.<sup>1</sup> Spontaneous pneumothorax has been documented as an initial presentation of mesothelioma in adults above 40 years old.<sup>2</sup> To our knowledge, pseudochylopneumothorax in mesothelioma has not been previously reported. The pathological alteration in the structure of the pleura infiltrated by mesothelioma is possibly responsible for this presentation.

### **Authors' contribution**

All authors treated the patient and collected the imaging. MH wrote the draft of the manuscript. CD and JPC critically revised the manuscript. All authors reviewed and approved the final manuscript.

## **Conflict of interest**

No conflict of interest to declare.

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