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Clinical Image

The Sandwich Sign in Pleural Lymphoma

El signo sándwich en el linfoma pleural

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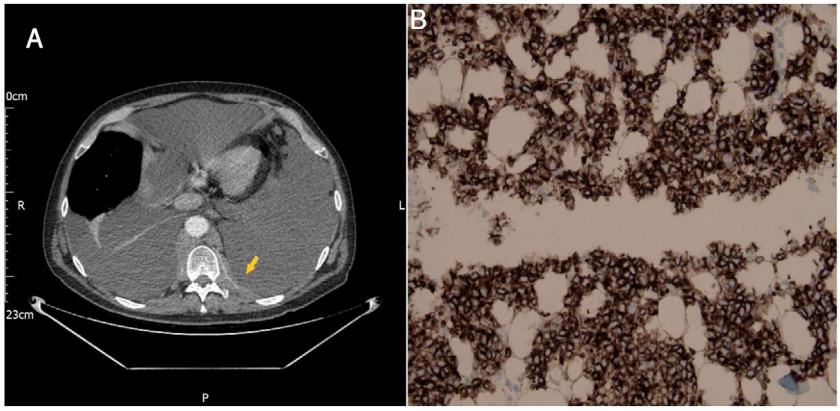

Figure 1. (A) Axial computed tomography (CT) image shows bilateral pleural effusion and parietal pleural thickening exhibiting the sandwich sign on the left side (arrow). (B) Immunohistochemistry showing lymphoid cell highlighted by BCL2 marker.

A 74 year-old male patient was referred to the Pleural Service by the Haematology team with progressive breathlessness. The patient had been diagnosed with follicular lymphoma two years earlier with excellent clinical response to chemotherapy. A computed tomography (CT) scan with intravenous contrast showed bilateral pleural effusions in addition to the pleural sandwich sign – parietal pleural thickening with evidence of engulfment of the intercostal arteries into the pleural thickening (when the enhancing intercostal vessels (the filling) are engulfed by intra and extra-pleural lymphoid infiltration (the buns) (arrow, Fig. 1). The ultrasound appearance is shown in the supplementary video. On thoracentesis the fluid was chylous with pleural fluid triglyceride level of 200 mg/dL and cholesterol of 70 mg/dL. An omental biopsy showed infiltration by large lymphoid cells that were highlighted by the markers CD79a and BCL6 on immunohistochemistry (Fig. 1, panel B) thus confirming recurrence of follicular lymphoma. The patient was restarted on chemotherapy.

The sandwich sign was first coined to describe the CT appearance of bulky mesenteric adenopathy that engulf from both sides mesenteric vasculature and fat, in lymphoma.[1] The pleural sandwich sign is reported in pleural involvement in non-Hodgkin's lymphoma and represents engulfment of intercostal vessels within lymphoid tissue, that spreads in the parietal pleural as well as the extrapleural space.[2] This is demonstrable on the CT scans of the presented case. Whether this is a truly pathognomonic sign for lymphomatous pleural disease is yet to be determined.

Author Contribution

All authors were involved in the management of the patient. MH collected the report images and drafted the manuscript. All authors critically revised the manuscript and approved the final version.

Disclosure

No conflict of interest. Written consent provided by the patient subject of the case report. The authors would like to thank Dr Rasika Singh who kindly provided the images of the pathology slides.

Appendix A. Supplementary Data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.arbres.2020.07.041

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