

IMAGES IN GASTROENTEROLOGY AND HEPATOLOGY

Shapeshifting lymphoma – Diagnosis through endoscopic ultrasound-guided fine needle aspiration combined with flow cytometry



Linfoma “metamórfico” – diagnóstico por punção de agulha fina guiada por ecoendoscopia combinada com citometria de fluxo

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Received 15 December 2013; accepted 6 February 2014

Available online 12 March 2014

An 18-year-old man presented with epigastric pain and progressive jaundice. His past medical history was remarkable for the diagnosis of nodular sclerosing Hodgkin's lymphoma (HL) (stage IIa – cervical and mediastinum) 10 months before, for which he underwent chemoradiation therapy. Of note, he was in remission for the last 2 months before the current symptoms.

CT imaging revealed a heterogeneous 30 mm pancreatic head mass, causing dilation of both the common bile duct and pancreatic duct (Fig. 1). These findings were replicated on EUS, with no other significant findings, namely mediastinal or abdominal adenopathies. FNA was performed using a 22-gauge ProCore needle. The samples were sent to pathological examination and flow cytometry (FC). The results of the analysis were surprising as they unveiled a high-grade



Figure 1 CT scan showing a heterogeneous 30 mm tumour in the pancreatic head.

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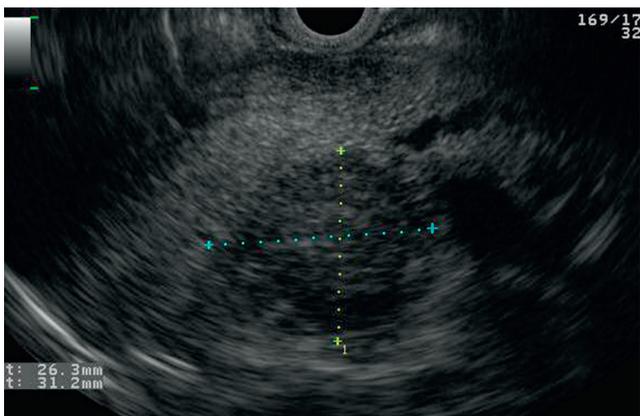


Figure 2 Pancreatic head mass evaluated by EUS.

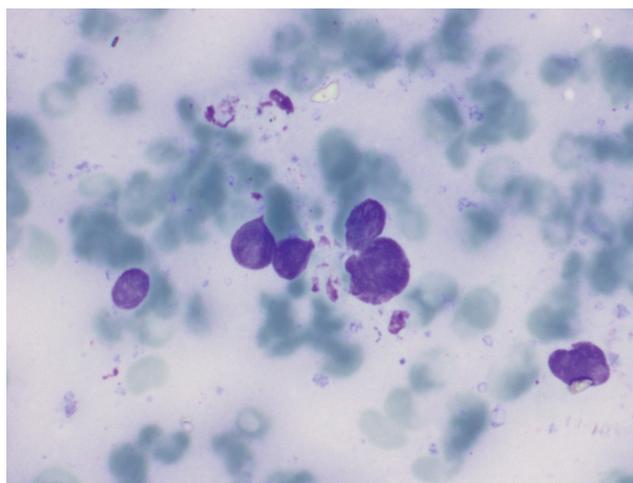


Figure 4 Large lymphoid cells with crush artefact. May-Grünwald-Giemsa, 600×.

B-cell non-Hodgkin lymphoma (NHL) (Figs. 2–4). This cast doubt on the previous diagnosis of HL, which was reviewed and confirmed.

The occurrence of a metachronous form of NHL in a patient with HL is exceedingly rare, especially the extranodal involvement in the absence of nodal disease.¹ Moreover, in a setting of HL, echoendoscopists do not regularly send samples for FC, as this analysis has not proved useful in the detection of the Reed-Sternberg cells.² However, given the clinical context putting forth the hypothesis of secondary pancreatic involvement by lymphoma as well as a previous report of missed NHL diagnosis in a background of HL, FC was performed.³ In a difficult case with broad spectrum differential, this proved to be invaluable by rapidly pointing to a NHL and by improving the diagnostic certainty of the pathology analysis obtained later on. It raises the question as to whether echoendoscopists should systematically obtain FC samples in patients with HL.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this investigation.

Confidentiality of data. The authors declare that they have followed the protocols of their work centre on the publication of patient data and that all the patients included in the study have received sufficient information and have given their informed consent in writing to participate in that study.

Right to privacy and informed consent. The authors declare that they have obtained the informed consent of the patients and/or subjects mentioned in the article. The

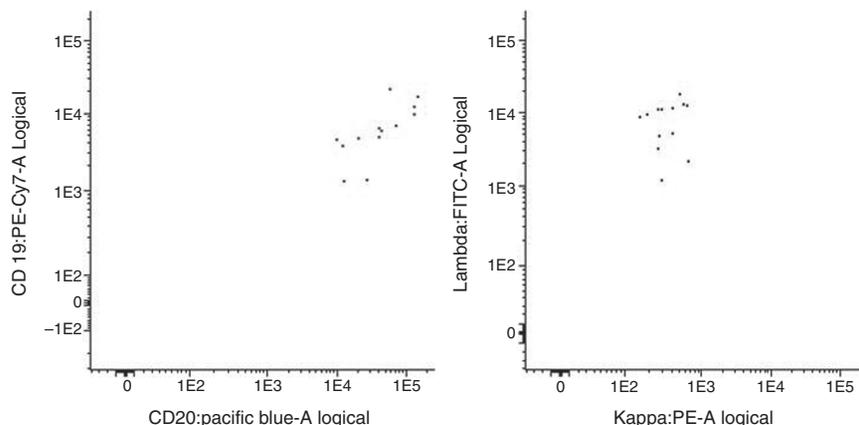


Figure 3 (Left) Flow cytometry analysis: B cells identified by bright expression of CD19 and CD20. These cells were large, CD38+, CD79b+, CD81+, CD200+, CD10– (data not shown). These results suggested B NHL, as evidenced by the immunophenotype and Lambda surface immunoglobulin light chain restriction (Right).

author for correspondence must be in possession of this document.

Conflicts of interest

The authors have no conflicts of interest to declare.

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