PERMANYER

CASO CLÍNICO

Endoscopic ultrasound fine needle biopsy of the liver with the new 20G procore needle in a patient with abnormal liver function tests and without solid liver lesion

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Abstract

Conventionally, liver biopsies are obtained by surgery, through percutaneous or transjugular. All that are good options but all have disadvantages as costs, complications risk, or invasiveness grade. Recently, endoscopic ultrasound-guided liver biopsies have showed good diagnostic yield in patients with solid liver lesions; however, in patients without solid lesions have been unsatisfactory. This problem has related to the kind of needles used. Recently, needles with a new design for liver biopsies have been created.

Key words: *Endoscopic ultrasound. Biopsy. Liver.*

Toma de biopsia hepática con un nuevo tipo de aguja, ProCore 20G, en un paciente con alteración de las pruebas de funcionamiento hepático pero sin lesiones focales

Resumen

Tradicionalmente las biopsias hepaticas se obtienen a través de cirugía, vía percutánea o transyugular. Todas son buenas opciones pero tienen desventajas como costos, riesgos o el grado de invasión. Recientemente la toma de biopsias hepáticas guiadas por ultrasonido han mostrado buenos resultados en pacientes con lesiones focales, sin embargo en pacientes sin lesiones los resultados no han sido satisfactorios. Esta falta de resultados adecuados se ha asociado al tipo de agujas utilizadas. Recientemente se han diseñado agujas para su uso exclusivo para toma de biopsias hepáticas.

Palabras clave: *Hígado. Ultrasonido endoscópico. Biopsias.*

Introduction

Conventionally, the options for obtaining liver samples have included percutaneous biopsy (PCB) and the vascular approach. PCB is the most common and has a diagnostic yield between 67% and 94%, with potential complications described in 0.09-3.1% of the cases[1]. The transjugular approach, which is used as an alternative is not without complications (0.5-6.5%)[2]. There is evidence that endoscopic ultrasound (EUS) is a useful method for liver pathology[2-5]. However, there are some reports with conflicting results mainly in patients

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Fecha de recepción: 01-09-2019
Fecha de aceptación: 14-09-2019
DOI: 10.24875/END.M19000169

Disponible en internet: 13-11-2019
Endoscopia. 2019;31:168-169
www.endoscopia-ameg.com

with abnormalities in liver function tests (LFTs) without solid liver lesions[6].

Clinical case

A 64-year-old woman who went to medical assessment because during general evaluation abnormalities in the LFTs was documented with elevated alanine aminotransferase (ALT) and aspartate aminotransferase (AST) (ALT 220 IU/L and AST 280 IU/L) with elevated alkaline phosphatase in 350 IU/L. Rest of the LFT were normal. Patient was asymptomatic. In abdominal ultrasound only hepatic steatosis was reported without any other abnormalities. A computed tomography scan of the abdomen reported as normal. Viral hepatitis tests were reported as negatives as well as antibodies antinuclear. LFTs were repeated on two occasions and were founded with similar results. For this reason and due to the desire of the patient, we decided to perform a liver biopsy guided by EUS (EUS fine-needle biopsy [FNB]).

The above procedure was carried out with the new needle EchoTip ProCore 3-20-c (Cook Medical, Limerick, Ireland) which is specifically designed to take liver biopsies. EUS FNB was performed by the conventional manner with capillarity technique (Video 1) and with one single pass. Histopathological result was of "non-alcoholic steatohepatitis" with the presence of evaluable liver tissue sample including 10 portal tracts (Fig. 1).

Discussion

Actually, there are some controversies about if tissue samples of the liver obtained by EUS guidance are a good method for diagnostic approach mainly because the tissue sample obtained with EUS FNA is mainly useful for "cytologic evaluation" and does not allow to see the "architecture" of the parenchyma. EUS FNB is considered as a good option for obtaining better tissue samples compared to EUS FNA[7]. The previous reports of EUS-guided tissue samples that have included patients with non-specific alterations in LFTs and biopsy were taken randomly from parenchyma and have been showed discrepancy in the results[2-5].

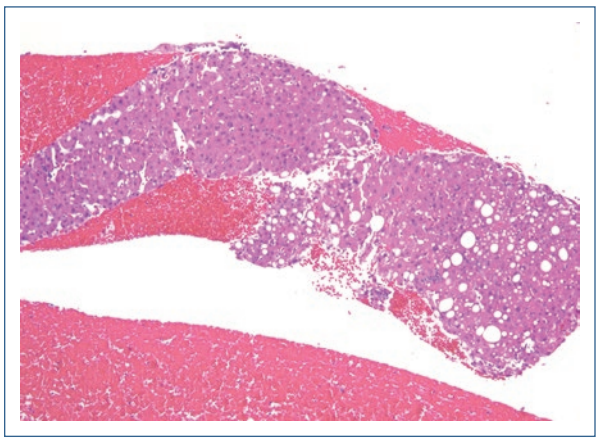

Figura 1. Evaluable liver tissue sample

In the present case, the EUS FNB was made with a needle with a new design specifically for achieve a "tissue sample that allows to see architecture in the histologic evaluation." This specific point could be the difference in many patients with liver diseases traditionally of "difficult diagnosis." Of course, this is only one case report and we need studies with good simple size that allows a real evaluation. For now, we can say that the new device could represent, in the future, a good option for EUS FNB in patients with abnormal LFTs without a solid liver lesion.

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