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Hepatic choristoma found durig laparoscopic cholecystectomy. A case report

Coristoma hepático, hallazgo en colecistectomía laparoscópica. Reporte de caso

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ABSTRACT

Introduction: Hepatic choristomas or ectopic livers are extremely rare developmental anomalies that can be found in any part of the body and are usually located in the abdomen, retroperitoneum, and thorax. **Clinical case:** A 30-year-old female was admitted for laparoscopic cholecystectomy. During surgery, gallbladder stones were found, and a smooth fragment of reddish-brown tissue attached to its anterior surface. The patient evolved satisfactorily and was discharged 24 hours after surgery. **Objective:** To describe a clinical case of hepatic choristoma adhered to the anterior wall of the gallbladder, its etiology, clinical picture, and therapeutic behavior. **Conclusions:** Hepatic choristoma of the gallbladder is due to an anomaly during the embryological development of the liver. Due to its potential malignant transformation, it should be readily resected. A laparoscopic cholecystectomy is an adequate approach.

RESUMEN

Introducción: *Los coristomas hepáticos o hígados ectópicos son anomalías extremadamente raras en el desarrollo y, por lo general, se localizan en el abdomen, el retroperitoneo y el tórax.* ***Caso clínico:*** *Paciente femenino de 30 años de edad que ingresa para ser intervenida de forma programada por colecistectomía laparoscópica, los hallazgos durante la cirugía fueron vesícula biliar con lito en su interior con fragmento liso de tejido color marrón rojizo unido a la superficie anterior de la vesícula biliar. La paciente evolucionó satisfactoriamente, por lo que se dio de alta 24 horas después de la cirugía.* ***Objetivo:*** *Describir un caso clínico de coristoma hepático adherido a la pared anterior de la vesícula biliar, así como su etiología, cuadro clínico y conducta terapéutica.* ***Conclusiones:*** *El coristoma hepático en la vesícula biliar se debe a una anomalía del desarrollo embriológico del hígado, por su potencial degeneración maligna debe ser resecado en cuanto se detecte, siendo la colecistectomía laparoscópica un abordaje adecuado.*

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INTRODUCTION

The term "choristoma" refers to ectopic normal tissue. Terms such as heterotopia or ectopia are synonymous and are currently more frequently used.[1]

Liver choristoma (ectopic livers) are extremely rare abnormalities of embryological development in humans. They can be found in the abdomen, retroperitoneum, and chest.[2] Although their description is anecdotal, they have been described in the gallbladder, hepatic ligaments, diaphragm, adrenal glands, pancreas, spleen, and esophagus. But also, rarely, in the navel, greater omentum, pylorus, and pericardium.[3]

On the other hand, the liver, in an unusual way, may have accessory lobes communicated by a tongue of normal liver tissue. However, there are cases of heterotopic liver tissue without vascular, biliary, or parenchymal connections, which correspond to a choristoma.[4] Various theories have been raised about the origin of this condition,

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the most widely accepted being aberrant migration of liver tissue during development around the fourth week of gestation, when the liver and biliary system originate and its cells migrate cranially to the transverse septum, this abnormality in cell migration being the main cause.[5]

Different clinical presentations have been described, the most important is abdominal pain in 72-93% of patients. Other manifestations can be nausea, vomiting, mass in the right upper quadrant, or rectal sensitivity. Murphy's sign (pain on palpation in the right upper quadrant) is highly specific (79-96%), but not very sensitive (50-65%).[5]

A case of a hepatic choristoma attached to the gallbladder discovered during an elective laparoscopic cholecystectomy is presented.

CLINICAL CASE

A 30-year-old female patient, with no history of significant chronic disease, was admitted for a scheduled laparoscopic cholecystectomy for chronic lithiasic cholecystitis, after a history of two exacerbation episodes. The abdominal ultrasound of the liver and bile ducts revealed a gallbladder with normal morphology, thin-walled (3 mm), of 79 × 49 × 28 mm in size, with multiple echo-refringent images, with posterior acoustic shadow. The liver had a normal localization and form.

A three-port laparoscopic cholecystectomy (two 12-mm ports and one 5-mm port and pneumoperitoneum) was performed using the Veress technique. A smooth fragment of reddish-brown tissue attached to the anterior surface of the gallbladder was found, without macroscopical appearance of inflammatory tissue *(Figure 1)*. Dissection of the triangle of Callot was done, followed by stapling and cutting of the cystic duct cystic artery, and removal of the gallbladder without complications. Prophylactic antibiotics were administered 30 minutes before surgery.

The patient evolved satisfactorily and was discharged 24 hours after surgery. The histopathological report showed a gallbladder with sub-serous liver tissue, consisting of the ectopic liver (choristoma), and chronic cholecystitis *(Figure 2)*.

DISCUSSION

Ectopic liver has been reported in extra-abdominal sites. Of all possible abdominal locations, the gallbladder is the most frequent, and it is located mainly on the serosa, although it can also be found in the muscular or subserosa layer as in the reported case.[6]

The frequency of choristoma of the gallbladder is difficult to determine. Its frequency in other locations varies between 0.24-0.47%.[7] Some reports indicate hepatic choristomas in the gallbladder with low incidences, ranging from 0.05 to 0.28%, detected either by autopsy[8] or laparoscopy.[9,10]

Unfortunately, our center does not have statistics or reports to make a frequency estimate. This is an anecdotal case report.

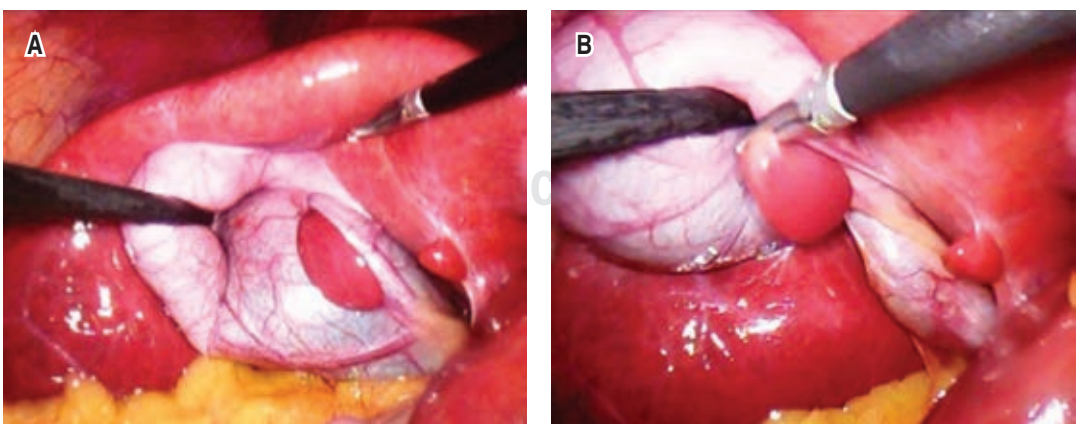

Figure 1:

(A) *Ectopic tissue in the body of the gallbladder corresponding to the hepatic choristoma.* ***(B)*** *Traction of the choristoma. The tissue forms a polypoid lesion attached to the serosa of the gallbladder.*

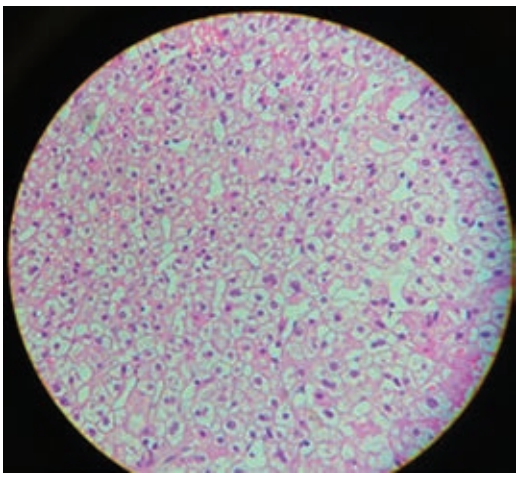

Figure 2: *Microphotograph of the choristoma showing architecture of the hepatic lobule and absence of biliary ducts.*

The identification was made incidentally, and the patient did not mention an atypical clinical presentation. Its diagnosis is not simple, due to the lack of specific clinical manifestations. The symptoms are often related to vesicular disease.[11]

Its identification by means of imaging studies is almost nil, a small percentage (2%). In very few reports a preoperative diagnosis has been made, interpreted as a nonspecific tumor.[12,13] Our patient had had an ultrasound, which showed no mass attached to the wall of the gallbladder.

Susceptibility of ectopic tissue to carcinogenesis has been observed, approximately 46% of living ectopic tissue outside the liver progresses to hepatocarcinoma, but only in 2.4% of cases associated with the gallbladder.[2] The high incidence of neoplastic changes in ectopic livers it is probably explained because they have a different functional architecture, with incomplete vascular and/or ductal systems. This results in a longer exposure of the ectopic liver tissues to carcinogens that result in malignant transformation.[6,14] Surgical resection is recommended as soon as it is diagnosed if the histopathological examination confirms a malignant neoplasm, a second surgical intervention is recommended to widen the resection margins with an additional regional lymphadenectomy.[2,4]

Until 2007, 61 cases of hepatic choristoma in the gallbladder had been reported.[7,10] In Mexico there are two other documented cases[4,15] with characteristics similar to the described in our case.

CONCLUSIONS

The hepatic choristoma of the gallbladder is due to an abnormality in the embryological development of the liver, and generally asymptomatic. However, due to its potential malignant degeneration, it must be resected as soon as detected.

This paper focuses on the case report as a national anecdote since, as noted, only two similar cases have been documented in our country.

It has been mentioned that the symptoms of this type of disease are not different from those of chronic lithiasic cholecystitis and that only through imaging studies can it arise some suspicion.

Laparoscopic cholecystectomy is the ideal treatment for the condition, so long as histopathological alterations are not detected.[6-8]

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