Absence of the Falciform Ligament of the Liver

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Citation

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Abstract

A 44-year-old woman underwent a laparoscopic cholecystectomy for symptomatic cholelithiasis. At operation, the patient was found to have absence the falciform ligament anterosuperior to the ligamentum teres. This is, to our knowledge, the second case report of this anatomic anomaly, and does not seem to have clinical significance, but can now be recognized as an anatomic variant.

CASE PRESENTATION

A 44- year-old Haitian female with no reported past medical history presented to the Emergency Department with abdominal pain for the previous 5 days. Pain was colicky in nature, worst after meals, and radiating to her right shoulder with associated nausea and vomiting. No other bowel symptoms were mentioned. Patient denied fever, chills, hematuria, and flank pain. On physical exam, she was afebrile and anicteric. Right upper quadrant tenderness was elicited on superficial and deep palpation. No organomegaly was noted. A liver function panel was obtained and showed abnormal results: total bilirubin 1.5, AST 517, ALT 539, and alkaline phosphatases 136. Abdominal ultrasound showed cholelithiasis without sonographic evidence for acute cholecystitis, and a mildly prominent common bile duct measuring 1 cm. HIDA showed non-visualization of the gallbladder concerning for cystic duct obstruction. MRCP showed innumerable small gallstone but no common bile duct pathology. The patient was admitted with the diagnosis of cholecystitis, put on antibiotics, and scheduled for inpatient surgery. At operation, there was noted to be absence of the falciform ligament anterosuperior to the ligamentum teres. (Figure 1) The falciform ligament and both left, and right triangular ligaments were absent. The round ligament of the liver entered the inferior surface of the liver in the usual location as a thick cord-like structure encased in fat. (Figures 2,3)

The laparoscopic cholecystectomy was without any complications. Pathology showed mild chronic cholecystitis-cholelithiasis. The patient recovered uneventfully and was discharged and doing well in follow-up without complaints.

Figures 1-3

There is an absence of the falciform ligament as noted with the laparoscope near the umbilicus looking cephalad and right with the gallbladder on the left side of the photo and the ligamentum teres on the right side of the photo.

Figure 1

Figure 2

Figure 3

DISCUSSION

The falciform ligament serves as a prominent anatomical landmark during abdominal surgery with physiologic variants of the falciform ligament being very rare. [1,3] This defect can lead to rare case of internal hernia.[2] Other surgical conditions involving the falciform ligament are also very rare, with only few reported cases an acute abdomen such caused by falciform necrosis. [1,3,4] Hematomas, abscesses, and lipomas have also been documented with the most common issue being cysts, tumors, and engorgement due to portal hypertension from conditions such as cirrhosis, Budd-Chiari, and malignancy. [3]

There have been only a few case reports of obliteration of the falciform ligament where the liver lacked the fissure the ligament usually creates. [3,4]. A search of PubMed under the heading of “agenesis” or “absence” of the falciform ligament did not produce any references. Although this anatomic variant is interesting there has not been any clinical significance associated with the absence of these attachments and thus is noted to be a rare anatomic variant.

References

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