

Incidental Finding of Ectopic Liver Lobule during Laparoscopic Cholecystectomy: A Case Report

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RESEARCH

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ABSTRACT

An Accessory or ectopic liver lobule is a rare finding with different variations. In this case: we are presenting a case of a 20-year-old lady who was investigated for recurrent abdominal pain and was diagnosed with chronic calcular cholecystitis with an ultrasonography. There was whatsoever no radiological evidence of ectopic liver lobule. Intraoperatively, an ectopic liver lobule was seen adherent to the gallbladder wall without connection to the actual liver, and uneventful laparoscopic cholecystectomy with removal of the ectopic liver was successfully achieved. The patient was discharged home on the same day, The final histopathology of the specimen showed liver tissue without evidence of malignancy.

In conclusion: an ectopic or accessory liver lobule could missed during preoperative investigations and it should be removed along with the gallbladder if found adherent to its wall during laparoscopic cholecystectomy to prevent related complications.

Key Words

Laparoscopic cholecystectomy, Liver lobule, Incidental

Introduction

An ectopic or accessory liver lobule is an uncommon embryological anomaly. Following is a case report of an ectopic liver lobule missed in preoperative radiological investigations and found adherent to the wall of the gallbladder during laparoscopic cholecystectomy.

Case Presentation

This case report is about a 20-year-old lady who presented to our outpatient clinic with a complaint of recurrent episodes of right upper quadrant abdominal pain radiating to the back. It is not associated with vomiting, no changes in bowel habits, no changes in urine or stool color, or weight loss. The patient is not known to have any medical illness and well as no previous history of having any surgical procedure. Her family history revealed no malignancies or any genetic disorders. Upon examination, the patient is under the normal BMI, she was conscious, oriented, not in pain nor jaundiced. Her vital signs were within the normal range, with normal abdominal examination, and negative Murphy's sign. As our team's primary impression was chronic calcular cholecystitis, full laboratory investigations in addition to abdominal ultrasonography were done for the patient showed all her laboratory investigations results were within the normal range and The abdominal ultrasonography showed features of chronic calcular cholecystitis with 1 cm gallbladder stone, unremarkable study otherwise.

Subsequently, the Patient was scheduled for an elective laparoscopic cholecystectomy. In the operation theater patient was given general anesthesia, she was properly prepped and draped, ports were inserted under vision using an open technique and gas was inflated. Upon exploration, a small liver lobule 1.5 x 1.5cm was seen attached to the gallbladder wall of the body with no connection to the liver (Figure 1). No other adhesions or abnormalities were found so the procedure was continued

regularly. A critical view was achieved, the liver lobule was excised along with the gallbladder, and the patient tolerated the procedure with no intra-op or post-op complications. In the follow-up visit patient was doing well. The final histopathology result of the specimen showed a well-demarcated liver tissue nodule containing normal tissue elements suggestive of ectopic liver tissue.

Discussion

Despite that Laparoscopic cholecystectomy is one of the most common procedures performed in the field of general surgery, an incidental finding of an anomalous liver could be very confusing for a general surgeon. The topic being discussed in our article is merely one of the multiple anomalous liver conditions that might be found due to an abnormality in its embryological development. The prevalence of accessory liver lobule is less than 1Per Cent and other than embryonic heteroplasia it might rarely be found after surgery or trauma¹.

In collan's article, four types of accessory liver lobe variations were described. In the first and the second type an accessory liver lobule is attached to the liver in contrast to the other two types that are ectopically situated with no connection to the liver².

Another variation that was mentioned in several other articles is Riedel's lobe, which is defined as a tongue-like downward projection from the right hepatic lobe and its incidence varies between (3.3-31Per Cent)³.

In this article, the patient presented with the typical clinical picture of chronic calculous cholecystitis, the accessory liver lobule wasn't diagnosed nor suspected in the perioperative imaging, and there was no clinical or radiological evidence of accessory liver lobule torsion nor any other related complications.

Since most cases are asymptomatic, they are often not detected in the regular preoperative investigations for elective laparoscopic cholecystectomy, however, if they are complicated with torsion they might present with acute abdomen and high Liver function tests as well as require emergency surgery. Ultrasonography computed tomography and MRI might be utilized if the condition is suspected or for the anatomical assessment to assist in surgical planning⁴.

In the literature, evidence suggesting the association between ectopic liver and hepatocellular carcinoma development has been found and was justified by the absence or the defective normal ductal or vascular system

in the ectopic liver that subsequently might lead to a functionally impaired liver as well as the development of cirrhosis and hepatocellular carcinoma. Given that in addition to other complications like torsion, hematoma, or ischemia, the complete removal of ectopic liver attached to the wall of the gallbladder during laparoscopic cholecystectomy was advised. The patient should be managed according to the final histopathology result⁵.

Conclusion

The finding of ectopic or accessory liver lobule is rare and to detect HCC or prevent other related complications it should be removed if found attached to the wall of the gallbladder during laparoscopic cholecystectomy.

References

1. Woldeyes DH. [The occurrence of an additional \(accessory\) lobe of liver and undescended testis in a single cadaver: A case report.](#) J Med Case Rep. 2019;13:1-5.
2. Collan Y, Hakkiluoto A, Hästbacka J. Ectopic liver. In *Annales Chirurgiae et Gynaecologiae* 1978;67(1):27-29.
3. Kajihara Y. [Riedel's Lobe of the Liver.](#) Chonnam Med J. 2022;58(1):50.
4. Jambhekar K, Pandey T, Kaushik C, et al. [Intermittent torsion of accessory hepatic lobe: An unusual cause of recurrent right upper quadrant pain.](#) Indian J Radiol Imaging. 2010;20(02):135-7.
5. Martinez CA, de Resende Júnior HC, Rodrigues MR, et al. [Gallbladder-associated ectopic liver: A rare finding during a laparoscopic cholecystectomy.](#) Int. J Surg Case Rep. 2013;4(3):312-5. Doi: <https://doi.org/10.1016/j.ijscr.2013.01.006>

Figures

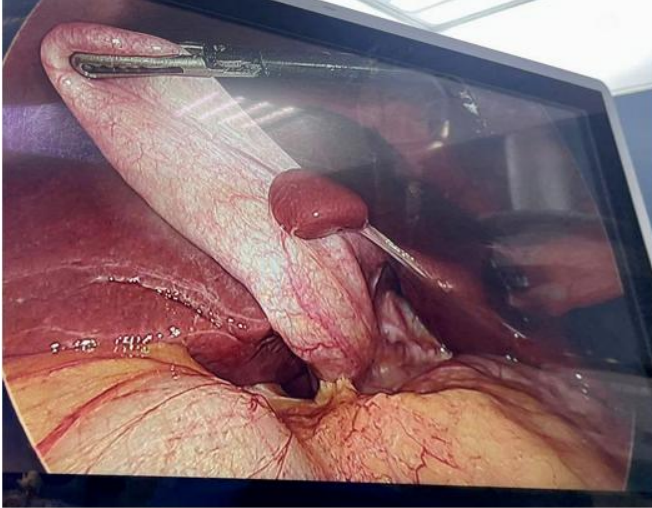


Figure 1: The final histopathology result of the specimen showed a well-demarcated liver tissue nodule containing normal tissue elements suggestive of ectopic liver tissue

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AUTHORS CONTRIBUTION

Dr. Hadeel Hamed, Consultant General Surgery, MD, – abstract, introduction, case report, discussion, and conclusion.

Dr. Reem Al-shiakh, Specialist General Surgery, MD – abstract, introduction, case report, discussion, and conclusion.

Dr. Maha Alajmi, Specialist General Surgery, MD – introduction and case report.

Dr. Mawadda Fallatta, MD – introduction and case report.

INFORMED CONSENT

Informed consent has been obtained from the patient.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

DATA AND MATERIALS AVAILABILITY

All data sets collected during this study are available upon reasonable request from the corresponding author.