CHORISTOMA OF LIVER - A CASE REPORT

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ABSTRACT

BACKGROUND

Choristoma or Ectopic Liver is a rare condition in which the hepatic tissue is located at a site away from its usual anatomical location. It is incidentally identified during laparotomy or laparoscopy for other disorders. Resection of the ectopic liver en bloc with the gall bladder is the standard treatment.

KEYWORDS

Heterotopic Liver, Gall Bladder, Laparoscopy.

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BACKGROUND

Ectopic liver or Choristoma is a rare condition in which the hepatic tissue is located at a site away from its usual anatomical location. It is also known as heterotopic liver.¹

The incidence of choristoma liver ranges from 0.24% to 0.47% and most of the cases are diagnosed at laparotomy or laparoscopy. Here, we are reporting an unexpected finding of choristoma of liver during laparoscopic cholecystectomy.²

CASE REPORT

A cholecystectomy specimen of a 42-year-old woman was received in our department of pathology. History revealed she had an episode of right upper quadrant abdominal pain, colicky in nature and radiating to right shoulder for the last 3 months. It was also associated with nausea and non-bilious vomiting. For which she consulted a gastro-intestinal surgeon, and she was advised ultrasonography (USG). USG showed multiple gallstones for which she underwent elective laparoscopic cholecystectomy (Figure 1) under general anaesthesia. The postoperative period was uneventful, and she was symptom free at the time of discharge. Gross examination of the cholecystectomy specimen showed a well-defined brownish nodule measuring about 1.5 cm x 1 cm which is attached to the anterior wall of the gall bladder. The excised gall bladder measured 8 cm x 2 cm x 2 cm and contained numerous yellowish stones on cut section. Microscopic examination of the resected brownish nodule revealed histologically normal hepatic tissue with portal tract and central vein. The gall bladder showed feature of chronic cholecystitis (Figure 2).

Figure 1

Figure 2

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DISCUSSION

Ectopic liver is a rare condition incidentally identified during laparotomy or laparoscopy for other abdominal disorders. The incidence of the ectopic liver has been reported from 0.24-

0.47% of the general population. It has been rarely described locating in the vicinity of liver such as on the gallbladder, hepatic ligaments, diaphragm, thoracic cavity, adrenal glands, pancreas, omentum, spleen, oesophagus and umbilical cord.²

However, the most common site of the ectopic liver is gall bladder. Hamdani S et al³ reported a 3 cm size of ectopic liver attached to gall bladder. Jonathan Lundy et al⁴ also reported a case of ectopic liver measuring 3.7 cm associated with fundus of the gall bladder. However, our finding is smaller (< 2 cm) as compared to the above authors. Embryologically, the hepatobiliary system originates from the hepatic diverticulum in the direction of septum transversum during 4th week of intrauterine life. Abnormal migration of some portion of hepatic diverticulum or the liver bud to other tissues is believed to be the cause of ectopic liver. It is usually attached to serosa of gall bladder, but it can also be in gall bladder lumen.^{2,5,6} Ectopic livers are divided into 4 categories namely a) Ectopic livers that are not connecting with the main liver and usually attached to the gall bladder or intra-abdominal ligaments, b) microscopic ectopic liver seen occasionally in the gall bladder, c) a large accessory liver attached to the main liver by stalk and d) a small accessory liver lobe attached to the main liver.⁷ Ectopic liver attached to gall bladder is usually asymptomatic and is found incidentally during laparoscopy as was this in our present case. It is also reported that ectopic liver is associated with other congenital anomalies such as biliary atresia, omphalocele, bile duct cysts, caudate lobe agenesis, cardiac anomalies, etc. In our case, these anomalies were not seen.⁸ Awareness of such pathology is important in order to prevent mistaken diagnosis. Diagnoses by mean of imaging studies are rare and difficult. However, this can be one of the differential diagnoses when a radiologist identifies a soft tissue mass on gall bladder on imaging. In our case, the ultrasound examination before surgery revealed multiple stones in gall bladder with slight thickening of anterior wall of gall bladder.⁹ Histologically, pictures of ectopic liver are similar to liver proper with a central vein and portal tracts. There may be increase in number of blood vessels in the outer surface of gall bladder. There can also be fatty infiltration, cholestasis, hepatitis, haemosiderosis, cirrhosis or malignant degeneration to hepatocellular carcinoma (HCC) as in normal liver. Studies showed that ectopic liver increases the risk of developing HCC. Therefore, resection of the ectopic liver en bloc with the gall bladder is the standard treatment.^{2,5,10,11}

CONCLUSION

Ectopic liver attached to gall bladder is a rare condition due to aberrant migration during the embryological development of liver. As there is increased risk of malignant degeneration to HCC, it should be diagnosed during laparoscopic procedures, removed and undergo histopathological examination.

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