

A Rare Entity of Gall Bladder: Ectopic Liver (Choristoma)



Mehmet Yildirim^{1*}, Asuman Argon², Ahmet Çekiç³

1. Department of General Surgery, University of Health Sciences, Izmir Bozyaka Education and Research Hospital, Turkey.
2. University of Health Sciences, Izmir Bozyaka Education and Research Hospital, Department of Pathology, Turkey.
3. University of Health Sciences, Izmir Bozyaka Education and Research Hospital, Department of General Surgery, Turkey.

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ABSTRACT

Ectopic liver is defined as the presence of normally organized liver tissue outside its normal location. It is frequently found in the gallbladder. Ectopic liver is normally asymptomatic and only discovered incidentally. We report a case of 51-year-old woman with ectopic liver and we also review the characterization of this rare entity. This report adds another case to the very rarely reported ectopic liver located in the gallbladder.

Introduction

Ectopic liver (also known as choristoma) is a rare developmental disorder on the serosa of the gallbladder, identified as liver tissue that is not anatomically connected to the main body of the liver [1]. The presence of ectopic liver can be detected all over the digestive tract. In many studies, the incidence ranges from 0.24 to 0.47 percent. About 100 cases have been reported in the literature in which the first case being described by Corsy in 1922. According to the studies, 40% of cases are found in the gallbladder [2]. Ectopic liver is normally asymptomatic and is only found

incidentally during a cholecystectomy procedure. When ectopic liver is complicated by changes such as bleeding, cirrhosis, or malignant transformation, it may become symptomatic.

We report a case of ectopic liver of the gallbladder, which is rare in surgical operation and pathological practice.

Case

A 51-year-old woman presented with complaints about the pain abdomen since 1 year ago. There was no relevant past history. Physical examination did not

* Corresponding Author:

Mehmet Yildirim

Address: Department of General Surgery, University of Health Sciences, Izmir Bozyaka Education and Research Hospital, Turkey

E-mail: mehmetyildi@gmail.com

detect any abnormalities. Biochemical assessments of liver and renal functions were normal. Ultrasonography revealed a gallbladder with multiple bile stones. The patient underwent laparoscopic cholecystectomy. During the surgery, a 1x0.3x0.2 cm, ectopic liver with an intact capsule was identified, which appeared on the anterior wall of the gallbladder (Fig. 1). The pathology report of the specimen revealed cholesterosis, cholelithiasis and an ectopic liver attached gallbladder serosa. On the resected surface of the tissue, a well – capsulated, homogeneously brown-colored tissue was identified. Microscopic examination of the ectopic liver revealed it to be

composed of hepatocytes with normal lobular architecture (Fig. 2). In addition, the post-operative period was uneventful and patient was discharged on the 10th postoperative day. After discharge, she was subsequently reviewed on two occasions and she had no complaints.

Discussion

We present a case of ectopic liver with intraoperative findings attached to the gallbladder serosa in a patient that had been asymptomatic for one year. Ectopic livers may develop in various areas of the body, and observed in the pancreas, spleen, adrenal gland, pericardium and thorax. Ectopic livers are almost commonly presented in the serosa of the gallbladder, but they are seldom found on the mucosal surface. The exact cause of ectopic liver formation is unknown, though multiple hypotheses have been proposed to

explain the condition. According to generally accepted theories, the ectopic tissues on the gallbladder are thought to be caused by abnormal embryological growth, abnormal migration of liver components and cell entrapment within tissue intervals, [2].

Ectopic livers are normally asymptomatic, as in our case, and are discovered by accident during surgery [3]. They may grow to a larger size and require medical attention on rare cases, such as when there is intrabdominal bleeding, torsion, or fatty infiltration. Another clinical consideration is the risk of malignancy [4]. It has been proposed that malignancy is caused by ectopic liver's inadequate biliary drainage. The transformation of ectopic livers in the gallbladder to malignancy is less common than in other locations. Preoperative imaging tests can be diagnostically useful; the lesion has shown a mass image over the gallbladder on ultrasound and CT.

Intraoperative diagnosis of ectopic liver is easier about the gallbladder serosa, where it may present specific features [5]. A typical ectopic liver appears macroscopically as a well-defined solid, ovoid, brown-colored smooth mass with a diameter of 0.5-1.5 cm. The presence of liver tissue that is anatomically and vascularity disconnected from the main liver. The cystic artery, main liver parenchyma, or gallbladder mesentery provides the majority of the ectopic liver's blood supply. These veins are vital during surgery because they can cause intraoperative bleeding. To prevent bleeding, it is best to avoid traction during cholecystectomy [6]. Histological examination of the sample is the



Fig. 1. Postoperative view of the gallbladder and ectopic liver

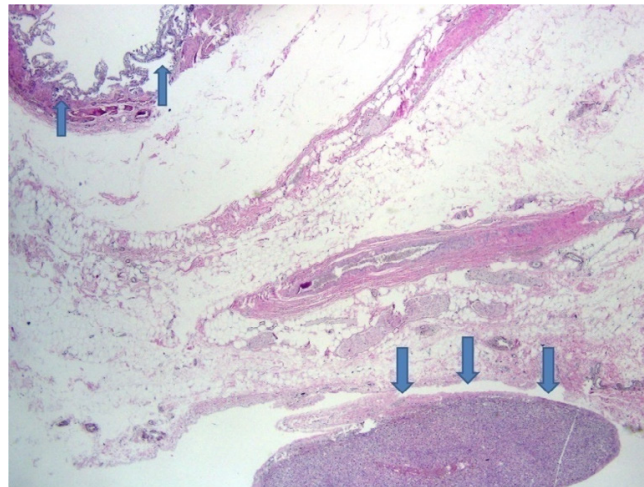


Fig. 2. Gallbladder showing ectopic liver tissue with normal hepatic structure.(upper arrow:gallbladder,lower arrow: ectopic liver) HEX2

only definitive diagnostic method of distinguished normal and pathological liver tissue [7]. Ectopic liver is typically composed of normal hepatic architecture with hepatocytes, central vein and normal lobules.

The presence of an ectopic liver on the gallbladder is a rare clinical occurrence. It's also difficult to make a definitive preoperative diagnosis. Pathological analysis of the resected specimen confirms the definitive diagnosis.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

Authors, contributions;

All authors equally contributed in preparing this article.

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