

Accessory Lobe of Liver Associated with a “Bean Shaped” Gall Bladder

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INTRODUCTION

Anomalies of the liver include accessory lobes, ectopic liver tissue, and agenesis of liver lobe and absence of its segments. Presence of accessory lobe is the commonest among these variations. Accessory lobes are usually asymptomatic, but they may produce abdominal pain and impair liver function.¹ Gall bladder (GB) is also known to show congenital anomalies such as double GB and accessory GB.²⁻⁴ Knowledge of variations of lobes and fissure in the liver is of immense clinical and surgical importance.⁵ The absence of normal fissures and lobes or the presence of additional lobes and fissures might lead to confusion on a radiological diagnosis of a liver disorder.⁶ We report the presence of an accessory lobe (AL) of liver and a “bean shaped” gall bladder and discuss their clinical and surgical importance.

ABSTRACT

Occurrence of accessory lobes of liver and anomalies of gall bladder is quite common. A thorough knowledge of their variation can minimise diagnostic and surgical errors. We found concurrent variations of liver and gall bladder. A small accessory liver lobe was attached to the quadrate lobe through a stalk formed by peritoneum. The gall bladder was “bean shaped” due to the presence of a constriction in the middle of its body. Since the accessory lobe was quite close to gall bladder, it could compress the gall bladder and hinder normal functioning of it. The knowledge of these variations might be of importance to radiologists and surgeons dealing with the hepatobiliary system.

KEY WORDS

Accessory lobe, gall bladder, hepatic-biliary, liver, quadrate lobe

CASE REPORT

During routine dissection classes for undergraduate medical students, we observed the following variations in the hepatobiliary organs in an adult male cadaver aged approximately 65 years (fig. 1). The right and left lobes of the liver were almost equal in size. This was mainly due to the reduced size of the quadrate lobe (QL). The QL was 1 cm broad and was not clearly visible on the inferior surface of the liver. An accessory lobe (AL) was attached to the posterior part of the QL through a stalk formed by visceral peritoneum of the liver. This stalk contained small blood vessels running from the QL to supply the AL. The AL was 3 cm long and 2 cm broad. The gall bladder (GB) was 7 cm long and was characteristically “bean shaped” due to the presence of a constriction in the middle of its body (Fig. 1). The cystic duct was straight and measured 1 cm in length.

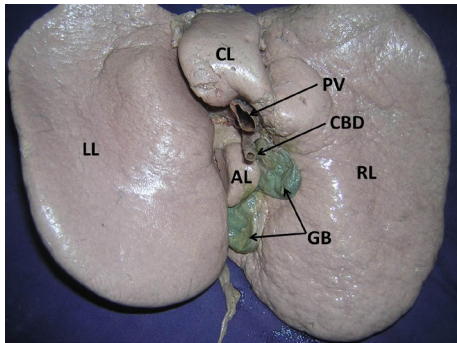


Figure 1. Inferior surface of the liver showing the accessory lobe (AL) and gall bladder (GB). [Left lobe of liver (LL), Right lobe of liver (RL), Caudate lobe of liver (CL), Portal vein (PV), Common bile duct (CBD)].

DISCUSSION

Accessory lobes (AL) of liver are usually found incidentally during laparotomy, laparoscopy, or autopsy and are asymptomatic.^{7,8} Laparoscopic studies have reported the frequency of liver anomalies to be 19.3% out of which incidence of AL is 0.7%.⁹ Recently, two case of AL have been reported. In one of those cases the AL was attached to the gall bladder and in the other it was situated in the fissure for ligamentum teres.^{10,11} A case of a peculiar liver with absence of QL has also been reported recently.¹² The current case is

different than earlier reported cases. The AL in the current case was attached to the rudimentary QL through a stalk formed by visceral peritoneum. Since the AL was closely related to the GB, it could compress the GB and hinder its normal functioning. It might also result in radiological misdiagnosis. Earlier, one such AL was radiologically misdiagnosed as lesser omental lymphadenopathy.¹³ The AL also runs a risk to develop hepatocellular carcinoma, hepatitis and torsion.⁸

The GB is known to show congenital anomalies. In some cases there may be a left sided gall bladder and right sided ligamentum teres.^{14,15} There are reports on shortening or atrophy of GB, due to the attachment of abnormal peritoneal folds such as cystohepatocolic folds to it.^{16,17} Short gall bladders that hide in their fossa may lead to confusion during imaging and laparoscopic surgery. The GB in the current case was “bean shaped” due to the presence of a constriction in the middle of its body. The constriction was closely associated with the AL of liver. This anatomical constriction of GB associated with presence of AL might hinder the bile flow in the GB and induce the formation of gall stones. It might also result in confusions during radiological and laparoscopic procedures in the vicinity of the liver. Concurrent occurrence of AL and bean shaped gall bladder is a unique variation and has not been reported yet.

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