Case Report
JCAM

Left Side Located Cholelithiasis Case

Sol Taraf Yerleşimli Kolelitiazis Olgusu

Left-Sided Gallbladder

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Öz

Sol taraf yerleşimli safra kesesi round ve falsiform ligamentin solunda bulunan safra kesesidir. Sık görülmeyen bir anatomik anormalliktir. Laparoskopik kolesistektomi en sık uygulanan cerrahi prosedürlerden bir tanesidir ve sol taraf yerleşimli safra kesesi durumunda güvenlik kurallarına uyulduğu ve özel stratejiler dikkate alındığı sürece laparoskopik cerrahi güvenli gözükmektedir. Laparoskopik kolesistektomi esnasında tanımlanan sol taraf yerleşimli safra kesesi olgusunu bildirirken sol taraf yerleşimli değişik safra kesesi formlarını ve bu farklılığın cerrahi ile ilişkisini tartışmaktayız.

Anahtar Kelimeler

Sol Taraf Yerleşimli Safra Kesesi; Laparoskopik Kolesistektomi; Aberan Safra Kesesi

Abstract

A left-sided gallbladder is a gallbladder located on the left side of the round and falciform ligament. It constitutes an uncommon anatomic abnormality. Laparoscopic cholecystectomy is one of the most commonly performed surgical procedures and in case of left-sided gallbladder, it seems to be safe as long as safety rules are followed and specific strategies are considered. We report a case of a left-sided gallbladder identified during laparoscopic cholecystectomy and discuss the different forms of left-sided gallbladder and the surgical relevance of this anomaly.

Keywords

Left-Sided Gallbladder; Laparoscopic Cholecystectomy; Aberrant Gallbladder

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Introduction

The gallbladder develops from an endodermal outpouching of the hepatic diverticulum and sits just beneath the right lobe of the liver [1]. The position of the gallbladder in relation to the liver may vary, with documented cases such as transverse, intrahepatic, retrodisplaced, and left-sided [2]. Such variants are very rare: reported cases of a left-sided gallbladder have been no more than 200; the incidence is 0.4% [3]. Left-sided gallbladder is often accompanied by biliary, portal venous, and other anomalies that might lead to intra-operative injuries. Hence, identification of this anomaly is important when performing laparoscopic cholecystectomy.

Case Report

A 44-year-old woman presented with right upper quadrant pain. Physical examination was unremarkable. Laboratory data were within normal limits. Ultrasound demonstrated cholecystolithiasis with no evidence of cholecystitis or choledocholithiasis. The patient was informed of the diagnosis, and a laparoscopic cholecystectomy was performed using the standard 4-port technique. Intra-operative view of the gallbladder indicated that it was located to the left of the falciform ligament (Figure 1,2). Meticulous dissection of the Calot triangle revealed that the cystic duct joined the common hepatic duct on the right side. The cystic artery was arising normally from the right hepatic artery. The gallbladder was detached from the liver bed by a antegrade dissection. The procedure was completed successfully. The patient was discharged home on postoperative day 1 and had an uneventful postoperative period. Pathological examination confirmed choleystolithiasis.

Discussion

Despite common variations in hepatobiliary anatomy, congenital anomalies of gallbladder position are rare. There are four types of aberrant gallbladder: (I) left-sided; (II) intrahepatic;(III) transverse; and (IV) retrodisplaced [2]. Of these four, the left-sided gallbladder without situs inversus viscerum is the rarest. It was first described by Hochstetter in 1886 [4]. Although the exact etiology of left-sided gallbladder has not been established definitely, there are many theories. If the cystic duct from a left-sided gallbladder joins the common hepatic duct from its right side, the variation has been regarded as a defect migration; if the cystic duct merges with the common hepatic duct on its left side or drains into the left hepatic duct, left-sided budding of the gallbladder/cystic duct anlage in the embryo has been proposed [5,6]. Moreover, some authors have regarded the left-sided gallbladder as the result of a poorly developed quadrate lobe while others have seen the right-sided round ligament as the true cause of the problem [3,5]. Associated anomalies with left-sided gallbladder include complete or partial situs inversus, duplicated gallbladder, hypoplastic bile duct, anomalous pancreato-biliary ductal junction, absence of the quadrate lobe, accessory liver, and anomalous intrahepatic branching of the portal vein [7]. It has also been associated with complex congenital abnormalities such as the main bile duct lying in front of the first part of the duodenum and malrotation of the intestine, an anteduodenal portal vein, an anular pancreas, agenesis of the dorsal pancreas, polysplenia and highly mobile right colon, liver cyst, and with intrapelvic ectopic testis with ectopic vesica and an umbilical hernia [3,7]. Recent data indicate that routine ultrasonography in patients with gallstone disease may fail to identify left-sided gallbladder disease. A left-sided gallbladder increases the risk of bile duct injury during laparoscopic cholecystectomy [3]. As associated anomalies are to be expected with left-sided gallbladder, the surgeon has to be cautious while performing laparoscopic cholecystectomy. Using specific operative strategies, such as mirror image port setup, fundus first dissection, placement of additional ports, use of existing port sites with manipulation of falciforme ligament, different patient positioning, and intra-operative cholangiography, can be the key to the successful and safe management of these patients [8].

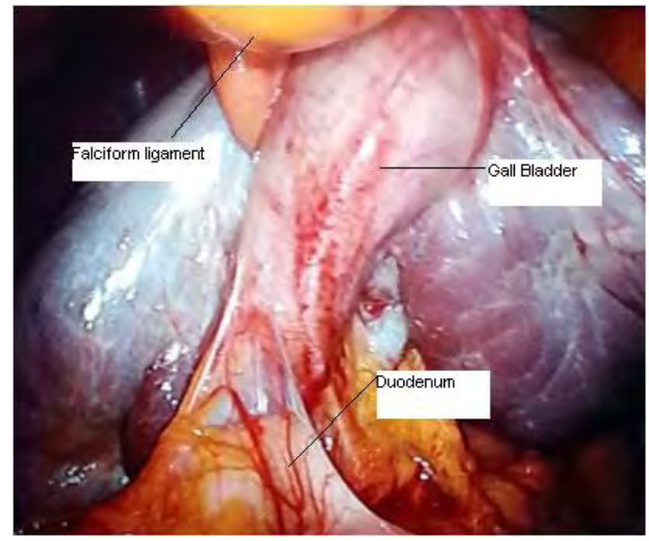

Figure 1. Gallbladder's position in surgery

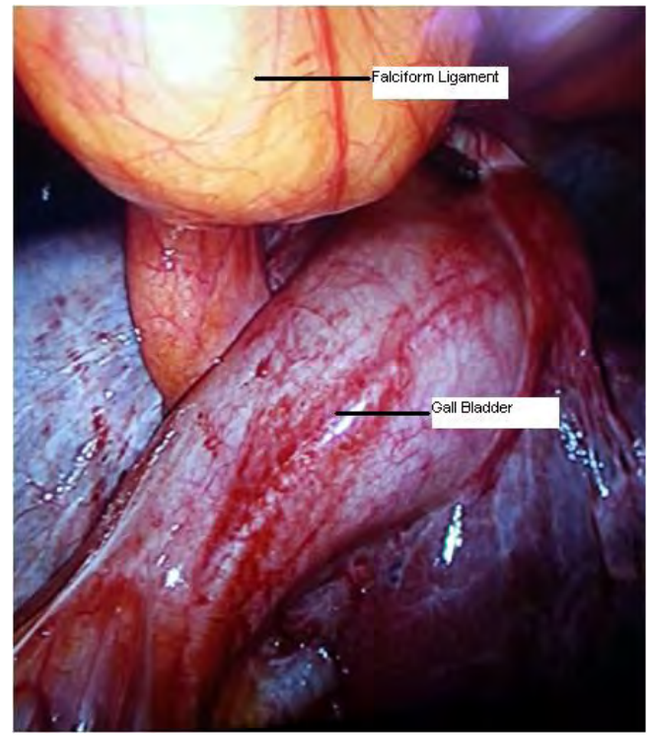

Figure 2. Gallbladder' position in surgery

Conclusion

Left-sided gallblader is often discovered during surgery. If the surgeon is experienced and aware of possible associated anomalies of left-sided gallbladder, laparoscopic cholecystectomy can be performed successfully.

Competing interests

The authors declare that they have no competing interests.

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