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Laparoscopic cholecystectomy in left-sided gallbladder detected during operation

Ameliyat sırasında saptanan sol yerleşimli safra kesesinde laparoskopik kolesistektomi

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Abstract

The case where the gallbladder was located on the lower face of the left lateral segment of the liver was defined as a left-sided gallbladder. It is a rare hereditary anomaly and can be seen with the right-sided ligamentum teres. Vascular and biliary anomalies can be seen in the cases of placement anomaly. Full dissection of the calot’s triangle applied as a standard in laparoscopic cholecystectomy is important for the safety of the cases in anomaly cases. In this study, we aimed to present a laparoscopic cholecystectomy performed in a case of a left-sided gallbladder detected during surgery.

Keywords: Gallbladder, Variation, Laparoscopic cholecystectomy

Öz

Safra kesesinin karaciğerin sol lateral segmentinin alt yüzüne yerleşmesi durumu sol yerleşimli safra kesesi olarak tanımlanmıştır. Nadir görülen kalıtsal bir anomali olup, sağ yerleşimli ligamentum teres ile birlikte görülebilmektedir. Yerleşim anomalisi olgularında damarsal ve safra yolları anomalisi görülebilmektedir. Laparoskopik kolesistektomi ameliyatında standart olarak uygulanan kalot üçgeninin tam diseksiyonu anomali olgularında da ameliyat güvenliği için önemlidir. Bu çalışmada ameliyat esnasında saptanan sol yerleşimli safra kesesi olgusunda yapılan laparoskopik kolesistektomi ameliyatını sunmak amaçlanmıştır.

Anahtar kelimeler: Safra kesesi, Varyasyon, Laparoskopik kolesistektomi

Introduction

A left-sided gallbladder (LSG) is a gallbladder located on the left side of the liver, round ligament, and not on the right side, which is its mundane location. It is first described from Hochstetter in 1856. The reported incidence is between 0.1% and 1.2% [1-4]. The present case report demonstrates a case of LSG identified during laparoscopic cholecystectomy. Gallbladder is located in the lower left side of the left lateral segment of the liver. It is a rare hereditary anomaly and can be optically discerned with a right-sided ligamentum teres. In this study, we aimed to present challenges in a laparoscopic cholecystectomy performed in a case of a LSG detected during surgery.

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Case presentation

A 55-year-old woman presented with abdominal pain and jaundice. She is hospitalized with the pre-diagnosis of cholangitis and choledocholithiasis due to occlusion of choledochus. He was discharged after medical treatment. Magnetic resonance cholangiography revealed no abnormality in the gallbladder or pathology in the biliary tract. The patient was prepared for elective cholecystectomy six weeks later. Operation revealed that the gallbladder was located in the left segment of the left lobe of the liver and left of the ligamentum teres (Figure 1, 2). It was decided to continue cholecystectomy without changing the places of entry. Cystic canal and cystic artery were revealed in the caliper dissection with technique of open window and critical view of safety. No major anomalies were observed in the dissection area. Standard retrograde (infundibulum-first) cholecystectomy was performed laparoscopically. The patient was discharged without any problems after one day. The pathological examination of the specimen was reported as chronic cholecystitis with gall stone.

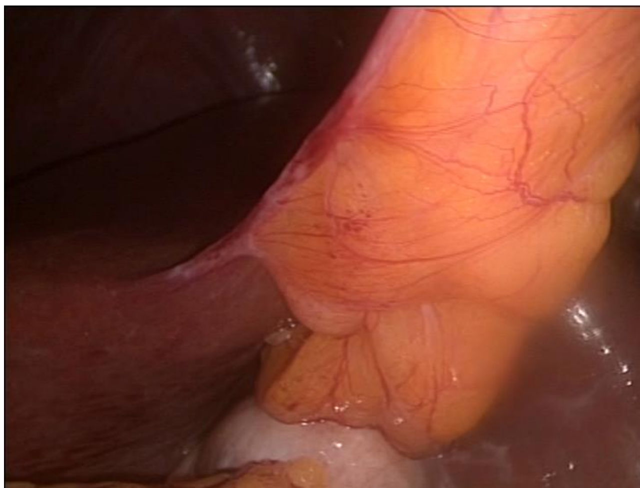

Figure 1: Intraoperative view of left-sided gallbladder

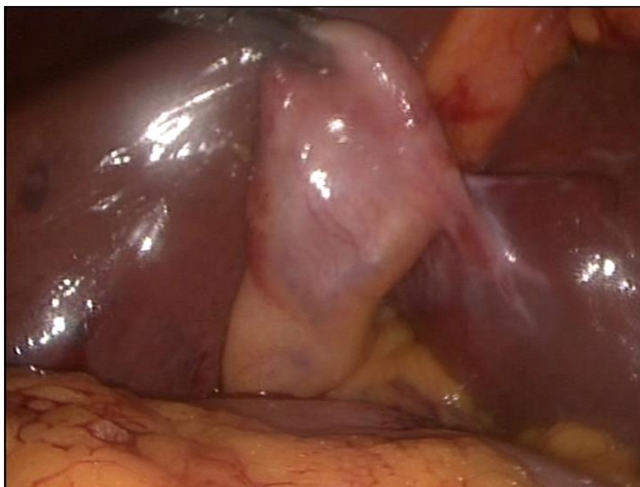

Figure 2: Gallbladder attached to the left lobe of the liver

Discussion

LSG is a rare anomaly. Vascular and biliary anomalies may be seen in these cases with placement anomaly. In laparoscopic cholecystectomy, for surgical safety, surgeon should complete dissection applied as a standard to reveal anomaly of the calot's triangle. Antegrade cholecystectomy (fundus-first) or, if necessary, conversion should be kept in mind when the association with the main bile duct is suspicious or in cases of such anomaly [3-5].

Aberrant gallbladder can be of 4 different types: Left-sided; intrahepatic; transverse; Retro settled. These are the most rarely seen gallbladder without situs inversus [5]. LSG can be found in two anatomic variants. The first is the actual LSG where the gallbladder is located in the left lobe of the liver. In this case, there may be subtypes depending on how the cystic channel is incorporated into the biliary tree [4-6]. The cystic channel is connected to the right bile duct (CBD) on the right side. The normal gallbladder bud does not go to the left and right of the left lobe, to the left and right of the left lobe, and to the left of the round ligament. Left cystic canal or left CBD connected. It accompanies failure in the development of the normal structure of the right and right side of the liver canal [7]. Second, the gallbladder is on the left side of the round ligament, but the round ligament is still in the right lobe of the liver because it is still attached to the right liver [6].

The inability to predict the cystic duct or the general bile duct may be challenging, and the selective use of selective intraoperative cholangiography might contribute to the safe laparoscopic management of this unusual problem [7,8].

In conclusion, left-sided gallbladder is a rare operative finding. Preoperative imaging may not detect the anomaly. Intraoperative cholangiography should be performed to detect anomalies associated with biliary trees. When the surgeon is suspicious, conversion to open surgery is recommended to prevent complications.

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