

Secure laparoscopic cholecystectomy with surgical technique modification in abdominal situs inversus

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To the Editor,

Situs inversus can be described as a mirror image placement opposite to normal anatomic sites of intraabdominal and/or intrathoracic organs. This rare anomaly was first described by Fabricius.^[1,2] The presence of the situs inversus is a significant factor that increase the likelihood of the anatomic variations.^[3] Cholecystectomy is a very frequent procedure in daily surgical practice. In the literature, laparoscopic surgery was performed in these patients, often less frequently than open surgery.^[4] Situs inversus which inherited otosomal recessively, can be diagnosed preoperatively with the development of the radiological imaging technique. Diagnosed patients has the chance of the surgical modifications taht increases the success. Here, we present a patient who had a cholecystitis episode and diagnosed abdominal Situs inversus as a result of the evaluation. The operative preparation, duration of the operation and the results are analyzed in the light of the literature.

Case

Forty six year old female patient admitted with a history of cholecystitis. In the evaluation, body temperature: 36.5 °C, arterial pressure 120/70 mmHg, pulse 70/min, respiratory rate 20/min was found. Labaratory findings was as follows; WBC 12.1x10³ (4.3–10.3) cell/mm³, hemoglobin: 12.2 g/dL (13.6–17.2), albumin: 3 g/dL (3.4–4.8),

aspartat amino transferase: 40 U/L (5–34), alanin amino transferase: 33 U/L (<55), gama glutamil transferase: 18 U/L (9–64), alcaline phosphatase: 73 U/L (40–150) total bilirubin: 0.46 mg/dL (0.2–1.2) direct bilirubin: 0.18 mg/dL (<0.5). The abdominal ultrasonography of the patient revealed that the liver was located in the left upper quadrant and the intraabdominal organs was inversely in the form of a mirror image. Recurrent cholesistitis with numerous gall stones and normal biliary tract was reported. Cholecystectomy was planned. Additional pathology was not determined.

Operative Tecnique

The patient who had no previous operation with ASA 1 Laparoscopic cholecystectomy planned. The monitor positioned to the left side of the patient. Pneumoperitoneum was formed by veres needle and CO₂ insufflation after incision made beneath the umbilicus. The first 10 mm trocar inserted at the same position and the other 10 mm trocar inserted under the xiphoid. After exploration of the abdominal organs, a 5 mm trocar was placed at the mid claviclar line and the other 5 mm trokar placed at the front axillary line. The patient was discharged on the first day after the operation with a duration of operation of 30 minutes. The pathologic evaluation was reported as chronic cholecystitis due to a large number of stones, the largest of which was 0.8 cm and the smallest is 0.4 cm. The duration of follow up of the patient who has no complication is 4 months.



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Situs inversus may only be intraabdominal. Laparoscopic cholecystectomy and other surgical procedures in the patient group with anomalies can be successfully performed thanks to detailed preoperative evaluation and modification of routine techniques. Sarigoz et al.^[5] have emphasized that left-hand dominant surgeons make the dissection easier than right-hand dominant surgeons in their study.^[5] Our case was made by the right hand dominant surgeon and there was no difficulty in the dissection. Biliary duct injuries are rarely reported on the situs inversus.^[6] More careful implementation of safe cholecystectomy guidelines in laparoscopic cholecystectomy is important to reduce morbidity since it increases the likelihood of anatomic variation presence by the situs inversus.

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