ANNALS OF GASTROENTEROLOGY 2000, 13(4):323-324

Case report

Laparoscopic cholecystectomy, in a patient with situs inversus totalis

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SUMMARY

We present an elderly patient with known dextrocardia and pain in the left upper quadrant associated with high fever, chills and vomiting and a palpable mass in the same region. The abdominal ultrasound confirmed the diagnosis of situs inversus with the liver and gallbladder on the left side and the spleen on the right. The gallbladder was distended with thick shaggy walls and contained a lot of large gallstones in the neck. The patient was treated via laparoscopic cholecystectomy and the postoperative recovery was uneventful.

Key words: Situs inversus totalis, laparoscopic cholecystectomy, empyema of the gallbladder

INTRODUCTION

Situs inversus viscerum is a rare condition (1/10000 living births) with genetic predisposition that can present difficulties in the surgical management of abdominal pathology.[1] To date 9 cases of cholelithiasis treated laparoscopically in patients with situs inversus have been reported.[2-10]

In the present study a case of empyema of the gallbladder treated laparoscopically, in a patient with situs inversus viscerum, is presented.

CASE REPORT

A 61-year-old male with known dextrocardia presented in the emergency room complaining of a 48 hour pain in the left upper quadrant, high fever up to 39,5 °C, chills and vomiting. On admission the patient was pale, with a temperature of 38,5 °C, pulse rate of about 90 per minute and blood pressure 140/70. Physical examination disclosed a palpable mass in the left upper quadrant of the abdomen and a "Murphy's" sign positive in the same region. No rebounding pain or other signs were elicited. The patient had been operated on three years earlier for ischaemic heart disease (triple bypass). There was no sign of previous abdominal operation.

Laboratory studies revealed anaemia (Hct: 26%) and WBC of 18100 with 82% neutrophils. Total bilirubin, alcaline phosphatase, liver enzymes and all other tests were within normal limits. Chest X-ray showed dextrocardia and the abdominal ultrasound confirmed the suspicion of situs inversus totallis. The gallbladder was in the left upper quadrant, distended, with thick, shaggy walls, containing a lot of large gallstones and with pericholecystic fluid collection. The common bile duct diameter was about 6mm. A diagnosis of empyema of the gallbladder was made. To investigate the anemia we performed upper endoscopy and colonoscopy. There were no findings except bleeding hemorrhoids, which were responsible for patient's anaemia.

Laparoscopic cholecystectomy was performed four days after admission. The procedure was modified to the patient's condition. The surgeon was placed on the right side of the patient facing the equipment (monitor, insuflator etc) on the left. Pneumoperitoneum was achieved using the Hassan technique.

A 12mm disposable trocar was introduced into the peritoneal cavity. Inspection of the abdomen revealed a gallbladder, distended, inflamed and adhering to the omentum (empyema). There was no other pathology

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noted. A 10mm trocar was inserted into the abdominal cavity left of the falciform ligament and other two 5mm trocars were placed in the left subcostal midclavicular line and in the left anterior axillary line respectively. Aside from the mirror-image position all the anatomical relationships appeared to be normal.

The adherent omentum was removed and the gallbladder was exposed. As grasping was impossible, (due to empyema), the gallbladder was punctured and it's contents were aspirated.

Laparoscopic cholecystectomy was carried out uneventfully, although the position of the gallbladder facilitated a left-handed surgeon. The gallbladder was extracted from the umbilicus trocar and a penrose drainage was placed.

The postoperative recovery of the patient was uncomplicated. He resumed a normal diet on the 2nd day and was discharged on the 3rd day. A longer stay in the hospital was necessary due to the empyema.

DISCUSSION

Laparoscopic cholecystectomy was first performed by Mouret in 1987.[11] Since then the increasing acceptance by the surgical world and the experience gained, has forced surgeons to attempt excision of the gallbladder even in cases of acute cholecystitis. However, empyema of the gallbladder is usually a good reason for abandoning surgery and converting the operation to "open".

Empyema of the gallbladder and situs inversus tottalis is a rare event.[3] In spite of the known difficulties of left sided cholecystectomy and the presence of empyema and adhesions, the operation was performed laparoscopically. To the best of our knowledge, it is the 2nd case reported in the literature.

We conclude that empyema of the gallbladder, even in a patient with situs inversus, is not a contraindication of laparoscopic treatment in the hands of an experienced surgeon.

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