



EDİTÖRE MEKTUP/LETTER TO THE EDITOR

Ileus due to cholelithiasis

Safra taşı ileusu

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Dear Editor,

Adhesions, hernias and tumors are major causes of intestinal mechanical obstruction. Gallstone ileus occurs through passage of gallbladder stones via bilioenteric fistulas to gastrointestinal system and cause obstruction^{1,2}. In our present study we tried to report a case of mechanical obstruction, which ensembles a rare entity, due to gall stone.

Eighty-six years old male patient was admitted due to abdominal discomfort, nausea, vomiting and absence of stool passage since two days to our emergency room. Physical examination revealed rebound and tenderness in right upper quadrant, abdominal distension and increased bowel sounds. Rectal examination showed no signs of abnormality. History of hypertension was noted. Laboratory data was not supportive. Cholelithiasis was discovered via ultrasound.

Despite medical treatment after three days of hospitalization 1000 cc fecaloid discharge was reported through nasobiliary drainage. Abdominal discomfort continued. Air fluid levels were detected in abdominal x-ray series. Signs of intestinal obstruction (aerobilia, air-fluid levels between intestinal loops) was discovered in computerized tomographic examinations. Localization and etiology of ileus could not be found with the help of radiological evaluations. We were able to localize a fistula between gallbladder and duodenum through upper gastrointestinal endoscopy. Patient received urgent surgical procedure via midline incision. A fistula between gallbladder and duodenum was

extracted following partially removal of gallbladder and primarily repaired. Impacted stone 30 cm distal to ileocecal valve was removed via enterotomy of related ileum segment (Figure 1, 2). Postoperative course was uneventful and patient was discharged without any complication on 12th day following surgery.

Gallstone ileus is only % 1-4 responsible for mechanical obstruction^{3,4}. Additionally only 0,3-0,5% of the patients with gallbladder stones can show signs of intestinal obstruction⁵. Gallstone ileus was initially described in 1654 by Erasmus Bartholin as a mechanical obstruction due to gallbladder stones³⁻⁵. Some researchers reported, only stones bigger than 2.5 cm may cause this type of intestinal obstruction⁶. Most common localizations of obstruction in gastrointestinal system are as follows in decreasing line: Ileum, jejunum and colon. Advanced age and female gender remain as frequent sources of this type of clinical entity⁷. Older people are in deteriorating clinical state due to diabetes, cardiovascular diseases and obesity and have great possibility of increased numbers of morbidity and mortality rates¹. Preoperative diagnosis can be elusive due to nonspecific symptoms. Clinical suspicion plays a major role in detecting this type of disease. Air-fluid levels, air bubbles in biliary system and stone images can be detected in abdominal plain graphies. This clinical entity is named as Rigler Triad, but only discoverable in 9-14% of the cases⁸. Also our findings were similar in our current study; only air-fluid levels were found. Ultrasound examination for gallbladder stones, computerized

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abdominal scans for air levels or localization of impacted stones accompanying to dilated bowel segments could be utilized. However diagnosis of these patients could be very difficult and additionally in 50% of these cases surgical exploration might be the only way of therapy³. Due to our radiological findings (gallbladder stones through ultrasound and air in the biliary system with the help of abdominal scans) our preoperative diagnosis was gallstone ileus. There are various types of surgical approaches for this clinical entity. One stage laparotomy comprises enterotomy or cholecystectomy plus enterotomy and repair of biliary fistula. So called two staged surgery refers to enterotomy and extraction of the impacted stone, 4-6 weeks later cholecystectomy plus repair of the fistula. The most applied surgical

procedure is enterotomy and removal of the stone, which should be done 20 cm proximally to related segment. Enterectomy is our choice of treatment in ischemia and perforation. One stage procedure could be described as definitive treatment modality but high mortality and morbidity remain as a major obstacle. Two staged treatment options are mainly preferred in young population⁹. According to the advanced age and clinical status of our patient one staged laparotomy was our surgical choice. We performed partial cholecystectomy and removal of the stone through enterotomy.

We can conclude that gallstone ileus is a rare cause of mechanical intestinal obstruction. Special attention must be paid especially in older population with ileus accompanied cholelithiasis.



Figure 1,2. Impacted stone 30 cm distal to ileocecal valve was removed via enterotomy of related ileum segment

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