

Case Report

Obstruction of the Small Intestine by a Large Gallstone

Ramadan Elamyal, Andrzej Kapala, Wojciech Zegarski
Department of General Surgery, Dr. Jurasz Clinical Hospital, Bydgoszcz, Poland

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ABSTRACT

We present a case of gallstone ileus in an elderly female patient. Clinical features, laboratory and radiological

investigation results as well as management are discussed.

KEYWORDS: cholecystoenteric fistula, gallstone, ileus

INTRODUCTION

Obstruction of the small intestine by a gallbladder stone is a rare but well-recognized complication of cholelithiasis especially in the elderly^[1]. In this report we describe a case of intestinal obstruction due to a large gallstone.

CASE REPORT

A 73-year-old overweight female presented with a two-week history of occasional vague abdominal pain that, over a period of three days, had become more severe and localized to the right lower quadrant of the abdomen. This was associated with occasional vomiting and intermittent constipation. She had a past medical history of gallstone disease 20 years ago, arterial hypertension and cardiac ectopic beat. There was no history of abdominal surgery.

On examination, she was mildly dehydrated and not jaundiced. The abdomen was distended and tender without evidence of hernia. Bowel sounds were present. Her hemoglobin was 14.8 g/dl. The white cell count $10 \times 10^9/l$. Liver function tests were normal. Plain abdominal X-ray showed evidence of small bowel obstruction but no air in the gallbladder nor gallstones were detected. Ultrasound offered no further information. No pelvic mass was identified and liver and kidneys were both normal. At laparotomy, a large gallstone measuring 4 X 2.7 cm was found impacted in the distal ileum. The stone was removed through a local longitudinal enterotomy. Dense inflammatory adhesions were present in the region of gallbladder and duodenum. These were not disturbed. The patient's recovery was uneventful.

DISCUSSION

Gallstone ileus is an uncommon cause of intestinal obstruction and accounts for less than 2%

of mechanical intestinal obstruction^[1]. It is more common in females than in males. Gallstone ileus occurs in either the sixth or seventh decade of life and is usually accompanied by associated diseases such as diabetes, cardiovascular diseases and pulmonary diseases^[1].

Not all gallstone that have migrated into the intestine through a fistula produce intestinal obstruction, the majority passes without any trouble^[1]. If intestinal obstruction occurs, there is almost always a cholecystoduodenal fistula^[2]. Cholecystocolic fistula hardly ever lead to ileus since the fistula is so small that no stone large enough to obstruct the large intestine can pass through it^[2].

The site of obstruction is found in the terminal ileum in 70% of cases because it is the narrowest part of the small intestine^[1]. Other sites include the sigmoid colon and duodenum. The diagnosis of gallbladder ileus is difficult and is rarely made with certainty before operation. The triad of air in the biliary tree, radiological evidence of small bowel obstruction and visualization of gallstones in the right lower quadrant in the plain film of the abdomen is almost diagnostic^[1]. Unfortunately in our patient only the signs of small intestinal obstruction were seen. Ultrasound offered no further information. The patient developed signs of complete intestinal obstruction early without the so-called tumbling phenomenon (impaction and disimpaction of the stone leading to intermittent episodes of complete and partial intestinal obstruction). This might have been due to size of the stone that did not allow its disimpaction from the distal ileum. The patient underwent an emergency laparotomy after rehydration and correction of electrolyte imbalance.

Address correspondence to:

Dr. Ramadan Elamyal, Department of General Surgery, Dr. Jurasz Clinical Hospital, 9 Mari-Curi Street, 85-355 Bydgoszcz, Poland . Tel/Fax: +48 52 3212281, E-mail: ahlan1@wp.pl

Enterolithotomy alone remains the mainstay of operation for gallstone ileus³. It is important to examine the entire intestine to detect other calculi. Simultaneous cholecystectomy and repair of the cholecystoenteric fistula is controversial since these patients are seriously sick and usually have other associated illnesses. Future complications of the diseased gallbladder and cholecystoenteric fistula may be treated selectively under more favourable

circumstances, when and if they occur.

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