Impacted gall stone ileus, seventeen of them!

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Received: 1 August 2008 / Accepted: 29 August 2008

A 67-year-old male was referred with three days old symptoms of diffuse generalized pain abdomen with distension, but no vomiting. He had obstipation and also gave a history of occasional right upper quadrant pain, in the past. Clinical examination revealed small bowel obstruction and abdominal radiographs showed dilated small bowel loops with air fluid levels (Fig. 1). As patient had not responded to conservative management of 3 days, he was subjected to an emergency laparotomy.

At laparotomy, the small bowel was distended more than the large bowel. A hard object was felt at the ileocecal junction. An enterotomy revealed a large gall stone at this site. Seventeen stones were recovered from this enterotomy site (Fig. 2). On proximal examination, a cholecystoduodenal fistula was found, for which a cholecystectomy with closure of the cholecystoduodenal fistula was executed and the patient had an uneventful postoperative recovery. The patient has been followed up for seven months now with no postoperative complications.

Gallstone ileus is a rare complication of cholecystolithiasis especially in the elderly age group, requiring emergency surgery. It is an uncommon cause of intestinal obstruction, accounting for 1–4% of mechanical small bowel obstructions and usually results from luminal impaction of one or more gallstones [1]. Of late, there have been more and more cases reported, likely as a result of a high index of suspicion and improved diagnostic imaging techniques. It

Fig. 1 Abdominal x-ray showing intestinal obstruction

is associated with a high mortality because of the advanced age of the patients, a delayed diagnosis and significant concomitant medical illnesses [2]. The clinical symptoms and signs of gallstone ileus are mostly nonspecific, contributing to delay in diagnosis. Signs of a cholecystoduodenal fistula are often absent on conventional radiological and ultrasonic methods, though a few show pneumobilia [3]. For several

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Fig. 2 Retrieved seventeen gall stones

years, plain abdominal radiographs had remained the gold standard in the diagnosis of gallstone ileus with classical Rigler's triad of pneumobilia, presence of ectopic gallstone and mechanical bowel obstruction. However, Rigler's triad has been shown to be present in less than half of the patients with gallstone ileus, and there are recent reports advocating early use of other imaging modalities like abdominal ultra-

sound (US) and computed tomography (CT) scans for early diagnosis [4].

Treatment options include: (a) enterolithotomy alone, (b) one stage procedure involving enterolithotomy, cholecystectomy with closure of the cholecystoduodenal fistula, or (c) a two stage procedure consisting of enterolithotomy first and the surgery of the biliary tract, at a later date [2,3]. Gallstones with a diameter of more than 2–3 cm should be removed by enterolithotomy to prevent the gallstone ileus [3].

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