

Case Report

A Rare Case of Giant Gall Bladder Mimicking as Right Iliac Fossa Lump: A Case Report

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Abstract

Giant gallbladder is a rare condition that can result from cholelithiasis or chronic cholecystitis. Giant gallbladders have been considered when size of gall bladder is more than 14 cm and volume more than 1.5 L. This report describes a patient with a giant gall bladder that presented as a right iliac fossa mass. An 84-year-old woman presented with painful swelling in her right lower abdomen and a palpable right iliac fossa mass. Computed tomography of the abdomen revealed a markedly enlarged gall bladder (16 cm × 7 cm × 6 cm) containing single calculus. The gall bladder was successfully removed by emergency open cholecystectomy.

Keywords: Gall bladder; Giant gall bladder; Right iliac fossa mass; Perforation

Introduction

Gallbladder disease is one of the most common encountered surgical pathologies and more than five lakhs cholecystectomies are performed worldwide every year [1]. The indications for surgery most commonly include cholelithiasis, acute cholecystitis, choledocholithiasis, and gallstone pancreatitis [2]. In India, the prevalence of cholelithiasis has been reported as 2% to 29% [3]. The incidence of gall bladder disease is more in North Indians than South Indians [4]. Apparently, this variation may be related to dietary and geographical factors. Majority of patients having gallstones are asymptomatic. Patients may present as biliary colic when a stone gets obstructed in cystic duct. There may be intermittent colicky right upper quadrant pain and if the obstruction persists, there is continued contraction of the gallbladder producing an inflammatory response which leads to acute cholecystitis [5]. We present a case of 84-year female who reported to our hospital with symptoms of acute right lower abdominal pain and a lump reaching up to right iliac fossa later evaluated to be a giant gall bladder. A gallbladder is variable in size but usually about 6 cm to 10 cm long, 3 cm to 4 cm wide, and typically holds 50 ml to 80 ml of bile. A distended gall bladder may reach up to 300 ml [6]. We could find only few reported cases in the literature on giant gall bladder [6]. In such cases, the gallbladder loses its usual pear shape and looks like a balloon. This case report includes a patient with a giant gall bladder mimicking as a right iliac fossa mass. The patient successfully managed with emergency open cholecystectomy.

Case Presentation

An 84 years old female, with no known comorbidities, presented to our hospital with H/O severe abdominal pain of 03 days duration along with multiple episodes of vomiting. The pain was insidious in onset and around right lower abdomen. It was severe in intensity, non-radiating with no relief of medication. There was history of anorexia along with continuous high-grade fever. On examination the patient was ill looking, severely dehydrated with pulse of 50/min and BP of 122/70 mm of Hg and SpO₂ of 94% at room air. On examination of abdomen there was tenderness in right iliac fossa along with guarding. A huge lump of size 16 cm × 10 cm was palpable from right hypochondrium to lower border felt at right iliac fossa. On evaluation her Hb was 10.9 gm% and TLC was 20000/ cumm with 93% neutrophils. Her biochemical parameters were WNL. Urgent USG abdomen along with CT abdomen showed overly distended gall bladder of size (16 cm × 7 cm × 6 cm) reaching up to right ilio-lumbar region with single calculus at neck of gall bladder with risk of impending rupture. X ray chest did not show any gas under diaphragm. A working diagnosis of empyema gall bladder with sepsis with impending perforation was made and patient was taken for urgent open cholecystectomy. Intraoperative findings presented as inflamed gall bladder along with a small perforation of body of gall bladder along with 700 ml pus drained from gall bladder (Figure 1A and B). There was single 2 cm calculus in the gall bladder. In Post operative period patient was kept in ICU on inotropic support along with ventilatory support. Next day patient was extubated and remained stable and shifted to female ward. The gallbladder extended over the stomach creating a large mass effect on surrounding structures. Final gall-bladder measurements were 16 cm × 7 cm × 6 cm. Pathological examination confirmed acute cholecystitis with no evidence of malignancy.

Discussion

Gall stones may remain asymptomatic in majority of cases. The symptoms of gall bladder disease are right upper quadrant or epigastric pain radiating to back. Other atypical symptoms reported are dyspepsia and flatulence with many patients reporting food

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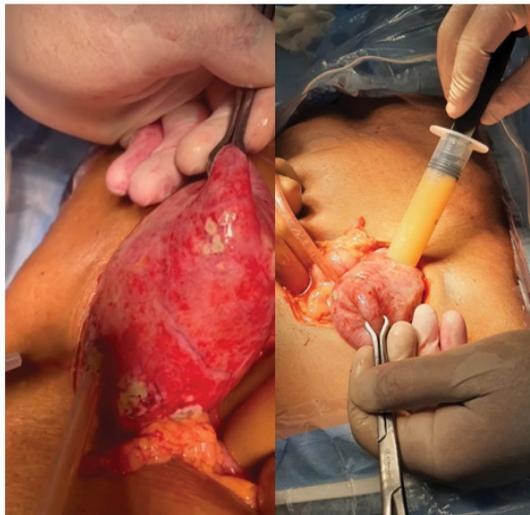


Figure 1: A) giant gall bladder reaching up to right iliac fossa; B) 700 ml of pus drained from gall bladder.

intolerance. A palpable gall bladder may point out to more sinister diagnosis if not accompanied by tenderness. If a patient has gall stones, a palpable gall bladder results from complete obstruction of cystic duct. However, this is a rare finding. A giant gall bladder may present as a mass in the abdominal cavity [7]. The finding of a palpable right iliac fossa mass, as in our patient, may confuse even an experienced surgeon. In both acute and chronic cholecystitis, gallbladder distention is present due to increased intraluminal volume, pericholecystic oedema, calcification or necrosis and it leads to a palpable mass on examination [8]. Giant gall bladder may also present as a clinical finding in malignancy. However, enlargement of the gallbladder far past the normal physiologic volume is rarely seen. Such “giant” gallbladder leads to different clinical presentation and significantly affects surgeon’s judgement and subsequent management. The current literature published on the subject is limited due to the complexity in the development of such a large intraluminal volume as seen in our patient. The pathogenesis of giant gallbladder development is unknown, but has been hypothesized secondarily to progressively increasing intraluminal pressure caused by a gallstone causing a ball valve action [9]. This allows for continuous enlargement of gall bladder by accumulation of intraluminal fluid. The progression of acute cholecystitis is often too rapid and severe to allow for such significant development. In contrast, in case of chronic cholecystitis, the gall bladder may become contracted and fibrotic [10]. In addition to obstructive mechanism, formation of a giant gall bladder may have other causes. It may include reduced motility due to local hypoganglionosis within the gallbladder neck allowing for the progressive enlargement of the gallbladder without clinical complications [11]. Additionally, there is a lack of clear and consistent criteria to classify a gallbladder as being giant. Kuznetsov et al. [12] have proposed a volume of 1.5 l to classify a gall bladder as giant. However, gallbladders that do not meet these volume criteria but still cause significant mass effect may be considered as giant gall bladders. For example, approximately 700 cc were drained from our patient’s gallbladder, but its overall size and associated mass effect warranted classification as “giant”. Further, due to short stature of Asians in general gall bladder of much small size and volume may produce same

symptoms and mass effect. Since there is no volumetric or measured size criteria, inclusion of overall mass effect as a contributing factor may be necessary in classification of giant gall bladder, since all previously documented cases have presented with a palpable mass in unexpected quadrants [13].

Conclusion

The giant gallbladder is a unique clinical and pathological entity rarely encountered in surgical practice with poorly understood mechanisms for such development. It may develop in patients of any age. It presents as a large abdominal lump. Both the clinical judgement and surgical treatment demand out of box thinking. Possible causes of biliary hydrodynamics resulting in gallbladder enlargement warrant further research which might help us understand this condition better. This case contributes to the of literature on giant gall bladder and attempts to present the idea that size, volume, quadrant of presentation and pressure effects should all constitute in defining a gall bladder as giant.

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