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Radiology

A Rare Case of Giant Gallbladder Mimicking an Abdominal Mass. A Case Report and Literature Review

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Abstract **Case Report**

Giant gallbladder (GGB) is an exceptionally rare clinical and radiological entity characterized by massive distension of the gallbladder, often mimicking other cystic abdominal masses. We report the case of a 62-year-old man presenting with a progressively enlarging right-sided abdominal mass. Contrast-enhanced computed tomography (CT) with multiplanar reconstructions was pivotal in confirming the diagnosis by demonstrating the organ's continuity with the gallbladder fossa and identifying obstructing intraluminal calculi. This case underscores the critical role of the radiologist in differentiating GGB from other large cystic lesions and in guiding surgical planning to optimize patient outcomes.

Keywords: Giant gallbladder - Gallstones (cholelithiasis) -Computed tomography (CT).

INTRODUCTION

The gallbladder is a small, pear-shaped organ typically measuring 7–10 cm in length with a capacity of 30–50 mL. Giant gallbladder (GGB), variably defined as a gallbladder exceeding 14 cm in length or containing more than 1.5 liters of fluid, is an exceedingly rare condition with fewer than 50 cases reported in the literature [2, 6]. Chronic cystic duct obstruction, most commonly due to cholelithiasis, leads to the progressive accumulation of mucus and bile (hydrops), resulting in massive distension [2, 6]. Radiologically, GGB poses a significant diagnostic challenge as its size and displacement of adjacent structures can mimic hepatic cysts, choledochal cysts, or pancreatic pseudocysts [3, 5]. Accurate imaging interpretation is essential to avoid misdiagnosis and facilitate appropriate surgical management.

CASE PRESENTATION

A 57-year-old man presented with a 4-month history of vague right upper quadrant discomfort and a progressively enlarging, non-tender abdominal mass extending into the right iliac fossa. There was no history of fever, jaundice, or weight loss. Physical examination confirmed a large, palpable, smooth mass occupying the right hemi-abdomen. Laboratory investigations, including liver function tests, complete blood count, and inflammatory markers (CRP, WBC), were within normal limits. Given the clinical suspicion of a large intra-abdominal mass, contrast-enhanced CT was performed for definitive characterization.

Imaging Findings

Contrast-enhanced CT of the abdomen and pelvis was performed using a standard portal venous phase protocol. Axial images revealed a markedly distended, thin-walled, fluid-attenuation structure occupying the right hemi-abdomen and extending deep into the pelvis, measuring approximately 23 cm in longitudinal axis (Figure 3). Multiplanar reformats (MPR) were essential in confirming the elongated morphology and demonstrating significant mass effect on adjacent bowel loops, which were displaced medially and anteriorly (Figures 2 and 3).

Multiple small hyperdense intraluminal foci consistent with gallstones were identified within the gallbladder lumen and the neck/cystic duct region (Figure 1). The gallbladder wall was uniformly thin (<3 mm) without mural thickening, nodularity, or pericholecystic fat stranding, effectively excluding acute cholecystitis or gallbladder carcinoma. The common bile duct and intrahepatic biliary tree were mildly dilated, and no free intraperitoneal fluid was noted.

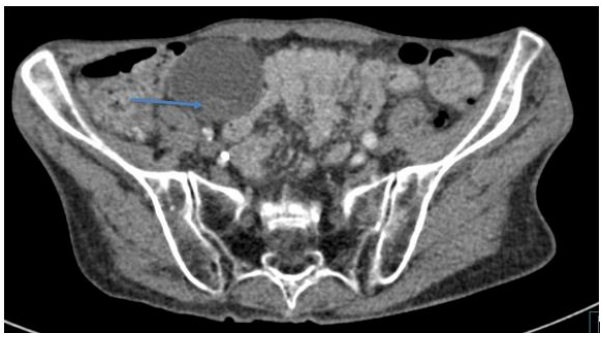

Figure 1: Axial contrast-enhanced CT demonstrating distended, thin-walled gallbladder with intraluminal gallstones (arrow) occupying the right hemi-abdomen

Figure 2: Coronal reformatted CT image showing the longitudinal extent of the gallbladder (23 cm) extending into the pelvis with medial displacement of bowel loops

Figure 3: Sagittal reformatted CT image confirming the continuity of the mass with the gallbladder fossa and the absence of pericholecystic inflammation

DISCUSSION

GGB is a rare sequela of chronic cystic duct obstruction [2, 6]. The pathophysiology involves the 'silent' accumulation of mucoid secretions (mucocele) behind an obstructed duct, leading to a chronic, compensated distension rather than an acute inflammatory process. This explains the lack of systemic inflammatory signs and normal laboratory values in this patient.

From a radiological perspective, GGB is a 'great mimicker.' It can be confused with hepatic simple cysts, choledochal cysts, pancreatic pseudocysts, mesenteric lymphangiomas, or even large ovarian cystadenomas when extending into the pelvis [3, 5]. The radiologist's primary task is to establish the organ of origin. This is achieved by meticulously tracing the cystic structure to its anatomical attachment at the gallbladder fossa and identifying the cystic duct's relationship to the biliary tree [4].

CT imaging is invaluable for assessing mural characteristics and detecting complications such as perforation or xanthogranulomatous changes. The presence of gallstones within the lumen supports the diagnosis of chronic obstructive hydrops. Furthermore, the radiologist provides critical preoperative data; identifying the exact anatomical relationships helps the surgical team decide between laparoscopic, mini-laparoscopic, or open cholecystectomy [1, 5]. In cases of extreme distension, imaging may suggest the need for preoperative percutaneous decompression to facilitate safer dissection and reduce the risk of iatrogenic bile duct injury [7, 8].

CONCLUSION

Giant gallbladder is a rare but clinically significant differential diagnosis for large cystic abdominal masses. Radiologists must maintain a high index of suspicion and utilize multiplanar CT reconstructions to confirm the diagnosis. Early and accurate radiological assessment is essential to guide surgical planning, prevent intraoperative complications, and optimize patient outcomes.

REFERENCES

1. Gao Y, *et al.,* Laparoscopic cholecystectomy for giant gallbladder: a case report. Medicine. 2023;102: e35429.
2. Kuznetsov AV, *et al.,* Giant gallbladder: a case report and review of literature. Int J Surg Case Rep. 2014; 5:673–6.
3. Zong L, *et al.,* A case of congenital giant gallbladder with massive hydrops mimicking celiac cyst. Oncol Lett. 2013; 5:226–8.
4. Uemura S, *et al.,* Gastrointestinal: Giant gallbladder. J Gastroenterol Hepatol. 2022; 37:2206.
5. Fultang J, *et al.,* Giant gallbladder presenting as a right iliac fossa mass removed by Mini-laparoscopic cholecystectomy. Cureus. 2019;11: e5576.
6. Mirali H, *et al.,* Giant gallbladder revealed by chronic cholecystitis gallstone: a case report and review of the literature. Cureus. 2021;13: e13906.
7. de'Angelis N, *et al.,*2020 WSES guidelines for the detection and management of bile duct injury during cholecystectomy. World J Emerg Surg. 2021; 16:30.
8. Okamoto K, *et al.,* Tokyo guidelines 2018: flowchart for the management of acute cholecystitis. J Hepatobiliary Pancreat Sci. 2018; 25:55–72.