

Laparoscopic Cholecystectomy in Acute Gangrenous Cholecystitis caused by Giant Gallstone - A Challenging case

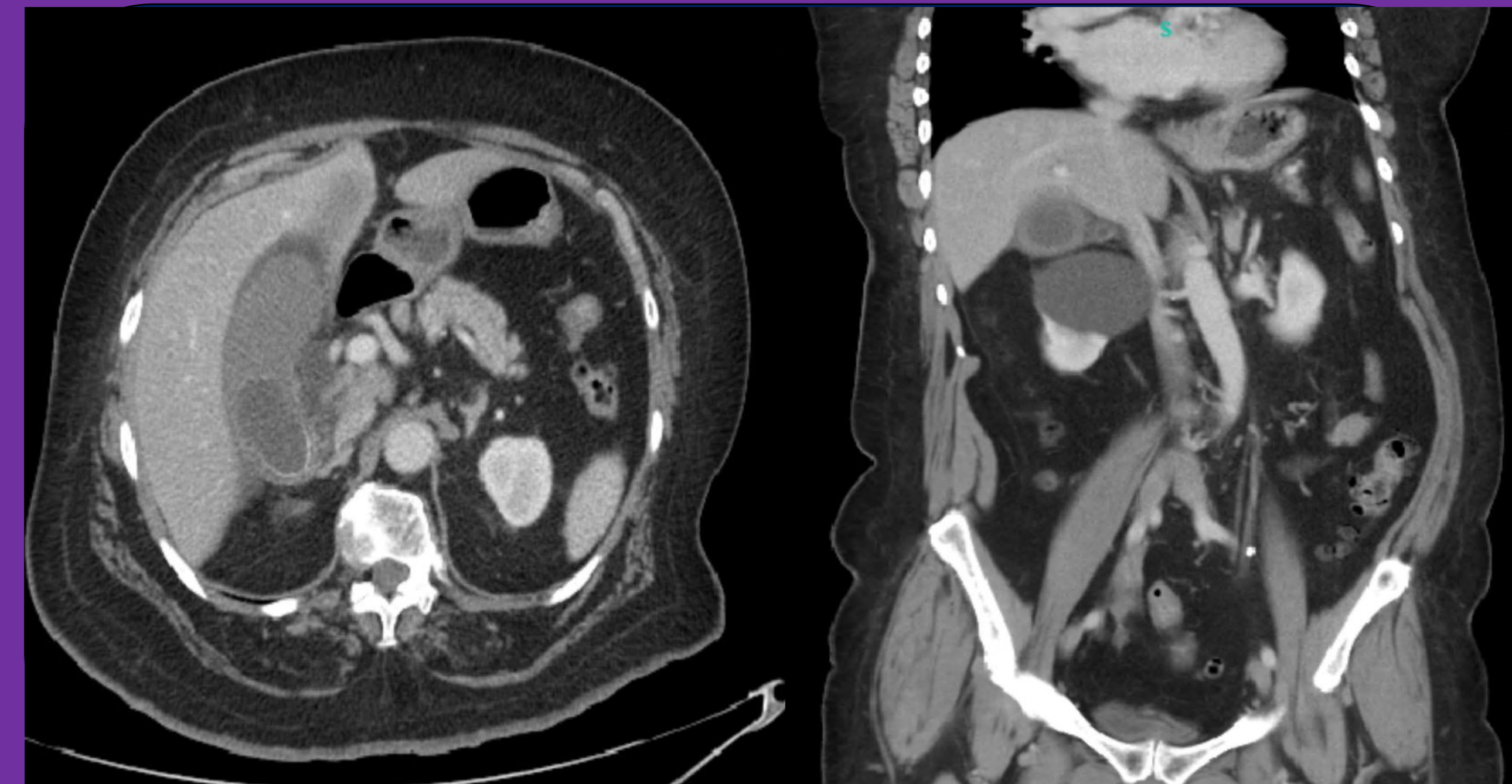
Kishore Malireddy MD, Minden Medical Center, Minden, LA

Introduction:

- Giant gallstones, with a size larger than 5 cms are very rare.
- Laparoscopic cholecystectomy is challenging in these patients and even worse if they have acute gangrenous cholecystitis.
- Most of the reported cases of giant gallstones were approached by open cholecystectomy. We report a laparoscopic approach

Case Presentation:

- 78 years old woman with Body Mass index (BMI) of 35 presented to the emergency room with 3 days history of right upper quadrant (RUQ) pain with nausea and vomiting.
- She has a history of Coronary artery disease and Atrial fibrillation. An evaluation revealed tender RUQ and guarding.
- CT scan of the abdomen showed large stone, measuring 5 cms impacted at the neck of gall bladder with wall thickening up to 9 mm with pericholecystic fluid.
- Incidentally, she also had a 75 mm right renal cyst. We proceeded with Laparoscopic Cholecystectomy
- Intraoperatively, she was noted to have inflamed gallbladder with patchy areas of full thickness necrosis with large stone impacted in the neck of gallbladder.
- After meticulous laparoscopic dissection and getting a critical angle of safety, we clipped and divided the cystic artery and duct.
- The patient tolerated cholecystectomy well. Final pathology showed Acute gangrenous cholecystitis with giant gallstone of size 5.5 x 3.2 cms.
- She recovered well from surgery, but on postoperative day(POD) #3, she had Upper GI bleed with hematemesis despite being on proton pump inhibitors.
- EGD showed bleeding gastroesophageal junction ulcer requiring submucosal epinephrine injection. She was discharged home on POD #6. She was seen at office on POD #16 and doing well.



CT scan showing Giant gallstone

CT scan showing Giant gallstone and right renal cyst



Laparoscopic view of the right upper quadrant showing gangrenous cholecystitis & Picture of the specimen at the bottom

Discussion:

- ❖ Giant gallstones could present with acute gangrenous cholecystitis and a thorough review of imaging is important before surgery as they could have cholecysto-duodenal fistula or cholecysto-colonic fistula as reported in the literature.
- ❖ One should be prepared to convert to open cholecystectomy if needed.
- ❖ It is helpful to aspirate the gallbladder if it is tensely cystic which helps to move the stone around, especially if it is stuck at the neck of gallbladder.
- ❖ Inadvertent injury to surrounding structures can be avoided by following the basic rule of laparoscopic cholecystectomy, to get a critical angle of safety.
- ❖ Gallbladder extraction site is at risk of incisional hernia if not closed properly.

Conclusion:

- Laparoscopic cholecystectomy for acute Gangrenous cholecystitis due to giant gallstone can safely be performed if a critical angle of safety is achieved before dividing the artery and duct, even in obese patients.