
Abdominal wall abscess – More Than Meets The Eye

J Gandhi, N Gandhi

Citation

J Gandhi, N Gandhi. *Abdominal wall abscess – More Than Meets The Eye*. The Internet Journal of Surgery. 2008 Volume 20 Number 1.

Abstract

This is an interesting case report of a spontaneous gallbladder perforation presenting as an abdominal wall abscess. The patient had a background history of mild dementia and presented with an abdominal wall mass which he thought was secondary to trauma. He appeared well on examination. Observations were satisfactory. Abdominal examination revealed a non-tender, non-fluctuant, erythematous mass in the right flank. Blood tests showed a WCC of 29.3. A CT of the abdomen was ordered which showed a perforated gallbladder with cholecystocutaneous fistula. Due to his multiple co-morbidities he was deemed not to be a surgical candidate. Radiological guided percutaneous drainage of the gallbladder was performed. Unfortunately, the patient deteriorated and passed away five days after admission.

INTRODUCTION

Abscesses are commonly seen in surgical practice. They are usually straightforward to manage. We present an unusual and interesting case of a spontaneous gallbladder perforation presenting as an abdominal wall abscess.

CASE REPORT

An 83-year-old man presented to the emergency department with a two-day history of a right-sided abdominal mass. He was a mildly demented man with multiple medical co-morbidities who lived in a rest home.

The patient was sent in by the staff at the rest home as they were concerned about a progressively enlarging mass in the right flank. He denied pain, fever, nausea and vomiting or weight loss. He had never had abdominal surgery in the past. The patient had a fall two days prior to admission in which he landed on his right side. He thought the mass was related to this. The patient said his last bowel motion was the day before presentation and it was normal. However, since then he says he has not been able to pass wind and feels bloated.

On examination the patient was comfortable. He had a temperature of 36.6°C, heart rate of 90 beats per minute, a blood pressure of 120/50 and a respiratory rate of 18. Cardiovascular and respiratory examinations were unremarkable. Abdominal examination revealed an 11 x 4cm mass in the right flank. It was firm in consistency but non-fluctuant. It was non-tender and there was no cough impulse. There was very mild erythema over the area but no skin

breaks.

Blood tests were significant for a raised WCC of 29.3, neutrophils 27.1, CRP 222. His electrolytes and creatinine were within the normal range. Liver function tests showed; ALP 272, GGT 116 with the rest of the results, including bilirubin, being within normal limits. Chest radiograph was unremarkable. The abdominal film showed dilated small bowel and no large bowel could be seen. A CT (computed tomography) scan was ordered as the suspicion was that this was not a simple abscess and there was a possibility of an intra-abdominal pathology. This showed a thick-walled gallbladder with multiple calculi and air present. There was also an extensive air and fluid collection in the layers of the abdominal wall and subcutaneous fat which arose from a perforation of the gallbladder. There was no free intra-abdominal fluid.

The patient was started on intravenous cefuroxime, metronidazole and gentamicin. Due to his multiple medical co-morbidities and after discussion with the patient and his family it was agreed he would not be a surgical candidate. CT-guided percutaneous cholecystostomy was requested on the day of admission but was delayed till the following day due to logistical issues. Despite the radiological intervention and medical management the patient progressively deteriorated. Hospice input was received and the patient died peacefully five days after admission.

DISCUSSION

Gallstones are common with a prevalence of 10% in the

United States and Western Europe. However, the majority of patients remain asymptomatic. When a patient does experience symptoms the most common is biliary pain.¹

Complications of gallstone disease are rare. Literature suggests that the incidence is less than 1% per year. The most common complications include acute cholecystitis, acute pancreatitis, ascending cholangitis and gangrenous gallbladder. Complications such as Mirizzi syndrome, cholecystocholedochal fistula and gallstone ileus are less common.¹

Gallbladder perforation can be into the peritoneum or can cause a fistula to form with structures like the bowel or anterior abdominal wall. Nowadays it is rare to see gallbladder perforation with a fistula to the anterior abdominal wall leading to a cholecystocutaneous fistula.^{2,3} Previous to the advent of routine abdominal surgery this was not such an uncommon appearance with more than 100 cases recorded in the literature in 1890.⁴ In the last fifty years, however, there have been only a couple of cases recorded.⁵ This decrease may be attributed to the early diagnosis of gallstone disease, the use of broad spectrum antibiotics and early surgical intervention.⁶

In the case presented here, a CT scan was used to make the diagnosis of gallbladder perforation. As the patient was not a candidate for surgery, and despite radiological and medical

interventions, his condition progressively declined and he passed away five days after admission. Although a CT scan was used to diagnose the condition in this case, literature suggests ultrasonography should be the initial imaging modality of choice for suspected gallbladder pathology.⁷

CONCLUSION

In conclusion, gallbladder perforation leading to an anterior abdominal wall abscess is a serious condition which requires prompt treatment. Awareness of this rare complication should lead to early intervention and therefore reduce morbidity and mortality.

References

1. Abou-Saif A, Al-Kawas FH. Complications of gallstone disease: Mirizzi syndrome, cholecystocholedochal fistula, and gallstone ileus. *Am J Gastroenterol* 2001;97:249-254.
2. Glenn F, Reed C, Grafe WR. Biliary enteric fistula. *Surg Gynaec Obstet* 1981;153:527-531.
3. Ulreich S, Hanken EM, Levinson ED. Imaging in the diagnosis of cholecystocutaneous fistulae. *J Can Asso Radiol* 1983;34:39-41.
4. Orr KB. Spontaneous external biliary fistula. *Aust NZ J Surg* 1979;49:584-585.
5. Gibson TC, Howat JMT. Cholecystocutaneous fistula. *Br J Clin Prac* 1987;41:980-982.
6. Marwah S, Godara R, Sandhu D, Karwasra RK. Spontaneous gallbladder perforation presenting as abdominal wall abscess. *Internet J Surg* 2007;12(2).
7. Bennet GL, Balthazar EJ. Ultrasound and CT evaluation of emergent gallbladder pathology. *Radiol Clin North Am.* 2003;41:1203-1216.

Author Information

Jamish Gandhi, MBChB

Surgical Registrar, Department of General Surgery and Gynaecology, Lower Hutt Hospital

Natasha Gandhi, BBiomedSc

Medical Student, Wellington School of Medicine, University of Otago