Rare disease

Cholecystocutaneous abscess: diagnostic difficulty in a groin lump

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Summary

An older patient presented with a 4-week history of tender lump in the right groin. Appearances were consistent with strangulated inguinal hernia and theatre was arranged. At operation, the lump was found to be an abscess communicating with the abdominal cavity. Alternative diagnosis requiring further operative management was considered but consent was deemed inadequate to proceed. Operation was abandoned and CT examination arranged. CT unexpectedly identified a cholecystocutaneous abscess discharging through the right inguinal region. The patient made good clinical recovery with ongoing drainage of the abscess and did not require any further operative treatment.

BACKGROUND

Having made an apparently straightforward clinical diagnosis the patient proceeded straight to surgery where alternative pathology was found. Intraoperative decision making in the context of this new diagnosis, with the different risk and prognostic profiles to those discussed at consent, was problematic.

CASE PRESENTATION

An 85-year-old lady was referred directly from surgical consultant clinic with a 4-week history of a tender lump in her right groin. This was painful and worse with movement. There was no generalised abdominal pain, normal appetite, no change in bowel habit and no weight loss. There were no urinary or gynaecological symptoms. The patient was frail; with a history of angina and hypertension. She had deep vein thrombosis and pulmonary embolus 3 years previous with warfarin therapy discontinued following regular falls. The patient had an episode of cholecystitis with confirmed gallstones 18 months before; this settled promptly with antibiotics. Gallbladder was not removed as anaesthetic risk was deemed to outweigh benefit. The patient lived alone with carers attending three times daily.

On examination, the patient was afebrile. She had a 6 cm lump in her right inguinal region; above and lateral to the pubic tubercle. The lump was erythematous, firm, tender and could not be reduced. Cough impulse was present.

INVESTIGATIONS

On admission, the patient was mildly anaemic with haemoglobin of 101. White cell count and C reactive protein were elevated at 14 and 87, respectively. Liver function tests were unremarkable; all within normal range with the exception of alkaline phosphatase of 367.

DIFFERENTIAL DIAGNOSIS

A clinical diagnosis of strangulated right inguinal hernia was made and theatre arranged. At operation however, the

lump was found to be a thick walled abscess; this communicated with the abdominal cavity via a tract lying below the inguinal ligament, 3 cm medial to the anterior superior iliac spine. Given the position alternative diagnoses considered were that of a tracking appendicular or diverticular abscess. However, in the context of mild anaemia in an otherwise asymptomatic patient perforated caecal tumour seemed most likely.

OUTCOME AND FOLLOW-UP

Consent was deemed inadequate to proceed, operation abandoned and abdominal CT arranged. CT with intravenous contrast showed a thickened gallbladder containing a 3 cm gallstone with an inflammatory tract extending below the inguinal ligament to a 6×2 cm abscess in the subcutaneous fat of the right groin (figure 1). A diagnosis of a cholecystocutaneous abscess was made. The abscess continued to drain via the right inguinal region with resolution of the patients' pain and improvement in inflammatory markers. The patient went home after 7 days with reducing discharge from the wound and outpatient follow-up arranged.

DISCUSSION

This rare presentation of cholecystocutaneous abscess caused considerable diagnostic difficulty. Initial misdiagnosis as strangulated hernia allowed surgery to proceed; an intraoperative unexpected finding could have resulted in an extensive unnecessary operation with considerable risk to a frail patient.

Spontaneous cholecystocutaneous abscess is a rare complication of gallbladder disease, with as few as 25 cases reported over the past 50 years.¹ With the increasing reliability of diagnostic tools, and improved surgical treatment of gallbladder disease, the incidence of this complication is further declining.² The development of a fistula or abscess is most common in patients with chronic cholelithiasis and recurrent cholecystitis. Some cases, however, have been reported in patients with no previous gallbladder pathology.

Figure 1 CT showing abscess tracking from gallbladder to right groin (arrow). Oblique sagittal view.

Gallbladder carcinoma and acalculous cholecystitis are two less common causes for these abscesses.¹ The majority of published cases describe subcutaneous abscesses appearing in the right upper quadrant.^{3–4} There are, however, a small number that report abscesses in more unusual locations such as right flank and gluteal region.^{1–5}

Being an unusual presentation, cholecystocutaneous abscess had not been considered as a clinical diagnosis in this case. The seemingly obvious presentation of strangulated hernia may account for its classical description and finding of a cough impulse; this may represent confirmation bias on the part of the reviewers. An intraoperative pause after encountering the unexpected abscess allowed recognition of misdiagnosis and careful consideration of alternative diagnosis, prognosis and consent implications. The over-riding principle must be to do no harm. Clearly a second anaesthetic for the same problem had to be avoided in this patient. She may have benefited from laparotomy,

drainage of abdominal component of abscess and definitive surgery to obtain source control but diagnosis remained uncertain. The patient had consented for ‘bowel resection’ however this was in the context of small bowel resection for incarcerated hernia as opposed to hemicolectomy for a locally advanced cancer. The patient had identified in her consent that she understood ‘that any procedure in addition to that named on this form will only be carried out if it is necessary and is reasonable in the circumstances, in relation to my medical treatment, to safeguard or promote my physical or mental health.’ In making the decision to abandon the operation we recognised that there was a risk of harm in proceeding to laparotomy and that the patients’ decision to allow operation was based on different set of circumstances. In the event CT identified an alternative pathology again to those considered clinically.

While an initial misdiagnosis was made in this patient, adherence to the principles of good medical practice and consent ensured appropriate treatment with resultant good outcome. The case serves as an important reminder that rare pathology will masquerade as the common. Cholecystocutaneous abscess is an increasingly rare but important diagnosis to consider; even in patients with little or no known gallbladder pathology.

Learning points

- ▶ Consider rare alternatives even when diagnosis appears obvious.
- ▶ Aim for firm diagnosis before surgical treatment.
- ▶ Intraoperative pause is an important tool for evaluation of unusual or unexpected clinical findings.
- ▶ Adherence to principles of good practice aides difficult decision making.
- ▶ Consider cholecystocutaneous abscess in tender lesions presenting in the right abdomen.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Sayed L**, Sangal S, Finch G. Spontaneous cholecystocutaneous fistula: a rare presentation of gallstones. *JSCR* 2010;**5**:5.
2. **Flora HS**, Bhattacharya S. Spontaneous cholecystocutaneous fistula. *HPB (Oxford)* 2001;**3**:279–80.
3. **Murphy JA**, Vimalachandran CD, Howes N, *et al*. Anterior abdominal wall abscess secondary to subcutaneous gallstones. *Case Rep Gastroenterol* 2008;**2**:219–23.
4. **Pezzilli R**, Barakat B, Corinaldesi R, *et al*. Spontaneous Cholecystocutaneous Fistula. *Case Rep Gastroenterol* 2010;**4**:356–60.
5. **Nicholson T**, Born MW, Garber E. Spontaneous cholecystocutaneous fistula presenting in the gluteal region. *J Clin Gastroenterol* 1999;**28**:276–7.

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