Netherlands
The Journal of Medicine

PHOTO QUIZ

Unusual mammary abscess

J.M. Munneke, M.H. Silbermann*

Department of Internal Medicine, Tergooiziekenhuizen, Blaricum, the Netherlands
*corresponding author: tel.: +31 (0)36-539 11 11, e-mail: msilbermann@tergooiziekenhuizen.nl

CASE REPORT

A 70-year-woman, with a history of type 2 diabetes, presented at the emergency room with nausea, vomiting, diarrhoea and fever. Her primary care physician had been treating her with flucloxacillin because of an abscess of the left breast. This treatment did not result in improvement of her medical condition. Two months earlier she had reported discomfort in the right upper quadrant of her abdomen.

On physical examination she was an ill-looking woman, with a pulse rate of 88 beats/min, temperature of 34.7°C and blood pressure of 100/60 mmHg. Bowel sounds were normal and the abdomen was not tender on palpation. Examination of the breasts revealed a fluctuating mass in the left breast.

Laboratory results showed elevation of C-reactive protein (268 mg/l; upper normal limit (UNL) is 10 U/l) and leucocytes (24.5 x 10^9/l, UNL 11 x 10^9/l). Gamma glutamyl transpeptidase (301 U/l, UNL 40 U/l), alkaline phosphatase (171 U/l, UNL 120 U/l) and both aspirate aminotransferase (80 U/l; UNL 30 U/l) and alanine aminotransferase (146 U/l; UNL 35 U/l) were elevated as well. Bilirubin levels were normal. The urine sample revealed no abnormalities. Plain radiography showed no abnormalities of the chest. With a working diagnosis of sepsis, computed tomography was performed (*figures 1* and *2*).

Figure 1.

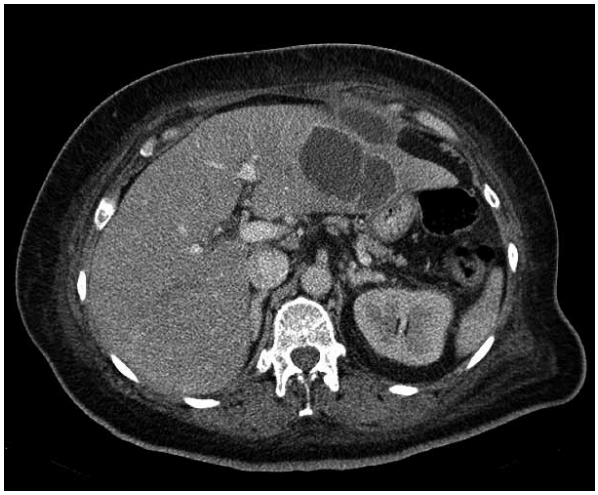

Figure 2.

WHAT IS YOUR DIAGNOSIS?

See page 138 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (PAGE 135)

UNUSUAL MAMMARY ABSCESS

DIAGNOSIS

Computed tomography with administration of contrast material showed a hypoattenuating mass in the liver that appeared to extend through the diaphragm into the left breast. These findings were consistent with a pyogenic hepatic abcess with a cutaneous fistula. Blood cultures and cultures of a specimen obtained by fine-needle aspiration of the liver lesion were positive for *Streptococcus anginosus*. The patient underwent drainage and was started on intravenous penicillin for a duration of four weeks. On colonoscopy there was no evidence of malignancy as a place of entry for the pathogen of the *Streptococcus milleri* group. On follow-up two months after drainage and antibiotic treatment, the patient was asymptomatic and had no recurrence of the abscess.

The commonest cause of liver abscess worldwide is amoebiasis, but in developed countries pyogenic causes are of increasing importance. In the developed world liver abscesses are the most common type of visceral abscess, with a mortality rate of 2 to 12%. Risk factors include diabetes, underlying hepatobiliary or pancreatic disease, and liver transplant. Independent risk factors for mortality include need for open surgical drainage, the presence of malignancy and the presence of anaerobic infection.[1] Infection in any site drained by the portal vein can cause portal pyaemia, with haematogenous seeding from the systemic circulation. Most commonly these abscesses involve the right lobe of the liver. Another important route is direct spread of infection from the biliary tree. Trauma and hepatic malignancy are uncommon causes.[2] Many pathogens have been described, reflecting the different causes, types of medical intervention and geographic differences. Polymicrobial infections are identified in about one-third of cases. The *Streptococcus milleri* or *S. anginosus* group (including *S. constellatus* and *S. intermedius*) is an important cause of liver abscess that should be followed by a search for simultaneous metastatic infections at other locations. Classical clinical manifestations of pyogenic liver abscess are upper abdominal pain and fever. Other common symptoms include nausea, vomiting, anorexia, weight loss, and malaise. For single abscesses with a diameter of less than 5 cm, either percutaneous catheter drainage or needle aspiration is acceptable. For percutaneous management of single abscesses with a diameter of more than 5 cm, catheter drainage is preferred over needle aspiration. Open surgical drainage is used when the abscesses are difficult to approach.[3] Antibiotic treatment needs to be continued for at least six weeks, depending on the extent of infection and the patient's clinical response. Patients who have had a good response to initial drainage should be treated with two to four weeks of parenteral therapy, while patients with incomplete drainage should receive four to six weeks of parenteral therapy. A cutaneous fistula is a rare complication of a liver abscess.[4]

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