PHOTO QUIZ

An unexpected finding in bacterial pneumonia

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CASE REPORT

An 83-year-old man presented with a one-week history of a cough productive of purulent sputum, diaphoresis, asthenia, and dyspnoea. Past medical history was relevant for chronic obstructive lung disease and diabetes mellitus. On examination, crackles and decreased breath sounds were present at both lung bases. Chest radiograph only showed right lung atelectasis. Therapy with oral cefuroxime was started. The patient initially had a pyrexia of 38°C

for three days despite antibiotics. A thoracoabdominal computerised tomography scan was performed.

WHAT IS YOUR DIAGNOSIS?

See page 215 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (ON PAGE 213)

AN UNEXPECTED FINDING IN BACTERIAL PNEUMONIA

DIAGNOSIS

The computerised tomography scan showed a condensation in the lower lobe of left lung, a transdiaphragmatic fistula, and a small abscess in the left iliopsoas muscle (figures 1-3, arrows). Staphylococcus aureus grew in the blood and sputum cultures. Intravenous ceftriaxone and cloxacilline were given for two and four weeks respectively. Two weeks later, the abnormalities had disappeared. The patient improved and was discharged. He was well one month later.

Case reports of transdiaphragmatic fistulas connecting subphrenic collections and the lower airway are very uncommon.

The erosion of a lower pneumonia through the diaphragm seems extremely rare, and has been described sporadically in thoracic actinomycosis. ¹⁻³ *S. aureus*, an important cause of bacteraemia both in community and hospital settings, could spread from the primary entrance route to multiple localisations, mainly endocardium, bone, muscle, and joints. ⁴ So, pyogenic psoas abscess resulting from haematogenous spread has rarely been reported following a prior pneumonia caused by *S. aureus*. ⁵

However, a transphrenic involvement such as contiguity dissemination mechanism remains, to the best of our knowledge, unreported in *S. aureus* pneumonia.

The diagnosis is iliopsoas abscess following a transdiaphragmatic fistula due to *Staphylococcus aureus* pneumonia.

REFERENCES

- Chen AC, Liu CC, Yao WJ, Chen CT, Wang JY. Actinobacillus actinomycetemcomitans pneumonia with chest wall and subphrenic abscess. Scand J Infect Dis 1995;27:289-90.
- 2. Zeebregts CJ, van der Heyden AH, Ligtvoet EE, Wagenaar JP, Hoitsma HF. Transphrenic dissemination of actinomycosis. Thorax 1996;51:449-50.
- Gee I, Wood GM. Conservative management of a transdiaphragmatic fistula. Thorax 2000;55:438-9.
- Lowy FD. Staphylococcus aureus infections. N Engl J Med 1998;339:520-32.
- O'Brien WT Sr, Jesinger RA, Lattin GE Jr, Zwirko RM, Danaher PJ. Post-pneumonia pyogenic psoas abscess. Pediatr Radiol 2005;35:1031-2.

Figure 1. CT scan of the abdomen showing a small abscess in the left iliopsoas muscle (black arrow)



Figure 2. CT scan of the abdomen showing a transdiaphragmatic fistula (black arrow)



Figure 3. CT scan of the abdomen (sagital view): air in transdia-phragmatic fistula (white arrow)

