The Recurrent Psoas Abscess Caused by Two Different Pathogens  
- A Case Report -

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We report a case of a recurrent psoas abscess caused by two different pathogens. The abdominal CT scans revealed a multiseptated cystic mass along the right psoas-iliacus muscle. The patient was treated with antibiotics treatment in combination with CT-guided percutaneous aspiration and drainage using a catheter. The microbiological examination revealed *Klebsiella pneumoniae*. Six months later, the patient presented with anorexia, malaise, epigastric pain, lower back pain and fever of 37.8°C for a one-week duration. The abdominal CT scans revealed an abscess cavity on the inferior side of the right psoas-iliacus muscle. This was accompanied by retrocecal appendicitis and a periappendiceal abscess. Magnetic resonance imaging of the pelvis showed that the psoas abscess was located on the right psoas-iliacus muscle. We performed an appendectomy and laparotomy. Subsequently, the culture yielded *Escherichia coli* in the psoas abscess. To our knowledge, this is the first case of a recurrent psoas abscess caused by two different pathogens.

Key Words: Recurrent psoas abscess, Different pathogens, Appendicitis

A psoas abscess is also known as 'a disease evolution' because its causative microorganisms are constantly changing1). To our knowledge, this is the first case of the recurrent psoas abscess caused by two different pathogenic microorganisms.

CASE REPORT

A 27-year-old man visited with the chief complaint of back pain, right thigh pain, lower back pain and fever with a 3 week duration. He had severe pain on the right lower quadrant of the abdomen, and a fever of 38.5°C. The physical examination revealed a tender, palpable 15×10 cm² size mass, accompanied by local heat, in the RLQ. In addition, he reported pain with an external rotation of the right hip. The laboratory findings revealed an elevated WBC count (19,410/L with 83.8% neutrophils; the normal levels are: WBCs; 3,400–9,300/L, neutrophils; 33.0–74.0%) and ESR (erythrocyte sedimentation rate) (88 mm/h; the normal level is 0–20 mm/h). The abdominal CT scan revealed a multiseptated cystic mass along the right psoas-iliacus muscle (Fig. 1). Upon ad-
mission, CT–guided percutaneous aspiration and drainage were performed using a catheter. On day 8, the follow-up abdominal CT scan revealed a marked reduction of the right psoas–iliacus abscess (Fig. 2). On day 9, the catheter was removed. The total amount of drainage was 1,800 ml. A microbiological examination revealed *Klebsiella pneumoniae*. Antibiotic therapy was performed using cefamezine.

Six months later, the patient presented with a history of anorexia, malaise, epigastric pain, lower back pain and a fever of 37.8°C for one week. The physical examination revealed tenderness in the RLQ region of the abdomen. The laboratory findings showed a hemoglobin level of 9.5 g/dl (the normal level is 11.7–17.1 g/dl), a Hematocrit level of 29.5% (the normal level is 35.5–51.4%), a WBCs count of 20,000/L with 81% neutrophils, and an ESR of 63 mm/hr. The abdominal CT scans revealed an abscess cavity on the inferior side of the right psoas–iliacus muscle. In addition, retrocecal appendicitis accompanying the periappendiceal abscess was observed on the abdominal CT scans. (Fig. 3) Magnetic resonance imaging of the pelvis revealed a psoas–iliacus between L3 and S1. An appendectomy and laparotomy was performed. The culture yielded Escherichia coli in the psoas abscess. Ceftazidim was administered to our pa-

![Fig. 1. Contrast-enhanced abdominal CT scans showing a multiseptated cystic mass along right psoas-iliacus muscle.](image1)

![Fig. 2. Contrast-enhanced abdominal CT scans showing that the right psoas-iliacus abscess is almost resolved with CT-guided percutaneous drainage.](image2)

![Fig. 3. Contrast-enhanced abdominal CT scans shows that the psoas abscess was accompanied by retrocecal appendicitis and a periappendiceal abscess (arrow) (A). In addition, the abscess cavity was observed on the inferior side of the right psoas-iliacus muscle (B).](image3)
tient based on the results of the sensitivity test. The drain was removed on day 10. After 3 months antibiotic treatment, the patient was discharged. At the 2–year follow-up, the patient showed no recurrent episodes.

**DISCUSSION**

An iliopsoas abscess can be classified as primary or secondary according to the presence or absence of the underlying disease. Primary psoas abscess is caused by Staphylococcus aureus in 80–95% of cases. A prior trauma to the psoas muscle is observed in 18–20% of cases. Intravenous drug abusers or HIV–positive people are at increased risk of developing a primary psoas abscess. In some cases, the causative agents are coupled with Escherichia coli, Staphylococcus and Streptococcus, in which Bacteroides species are predominant. Presumably, percutaneous drainage with antibiotic therapy might be the first treatment of choice in cases of primary psoas abscess. Before starting this treatment, the occult blood must be cultured once the blood supply is stabilized. In cases of a psoas abscess, with percutaneous drainage, complete drainage of the abscess can be performed and the abscess membrane can be debrided. This increases the recovery rate to 97%. In addition, it is advantageous to shorten the length of hospital stay and lower the recurrence rate. In the management of a secondary psoas abscess, abscess drainage must be carried out in combination with a treatment for the primary infectious focus. In cases of a secondary psoas abscess in which only percutaneous drainage was performed, the recurrence rate was at most 50%. In conclusion, antibiotic therapy must be continued for 2–3 weeks after defervescence and the cessation of drainage.

**REFERENCES**