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CASE IMAGE

A gigantic iliopsoas abscess in a patient with Alexander's disease

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Key Clinical Message

This case highlights the importance of early diagnosis of iliopsoas abscess in patients with communication difficulties and appropriate treatment to prevent further complications.

Abstract

We report a case in which the detection of an iliopsoas abscess was delayed due to difficulty in communication but was successfully treated with percutaneous drainage. A 70-year-old man with a 38–39°C fever and 5.69 mg/dL C-reactive protein. Adult-onset Alexander's illness, affected his swallowing, speech, coordination, and motor function. Abdominal computed tomography revealed a big iliopsoas abscess. Antibacterial treatment followed percutaneous draining. Drainage reduced temperature and inflammation. Four months later, the iliopsoas abscess returned, the second drainage eliminated recurrence. Difficulty in communicating was a contributing factor to the delayed diagnosis of a giant iliopsoas abscess. In the treatment of such patients, percutaneous drainage seems effective as an initial therapy.

KEYWORDS

Alexander's disease, iliopsoas abscess, percutaneous drainage

1 | INTRODUCTION

This case highlights the importance of early diagnosis of iliopsoas abscess in patients with communication difficulties and appropriate treatment to prevent further complications.

2 | CASE PRESENTATION

An elderly man over 70 years old with Alexander's disease (AD), a rare autosomal dominant leukodystrophy, presented to our hospital with fever and decreased blood oxygen saturation, which began 2 weeks prior. He visited the neurology department of our hospital 9 years ago due to unsteady gait, dysarthria, and difficulty in swallowing and had been diagnosed with AD. Since then, his symptoms, such as ataxia of limbs, dysarthria, and dysphagia, progressed, and he underwent gastrostomy and tracheostomy surgery 2 years ago.

On examination, the patient had a blood pressure of 104/62 mmHg; pulse, 105 bpm; SpO_2, 93% in room air; and fever, 37.9°C. He had difficulties in swallowing; speaking, which made it difficult for him to complain about back

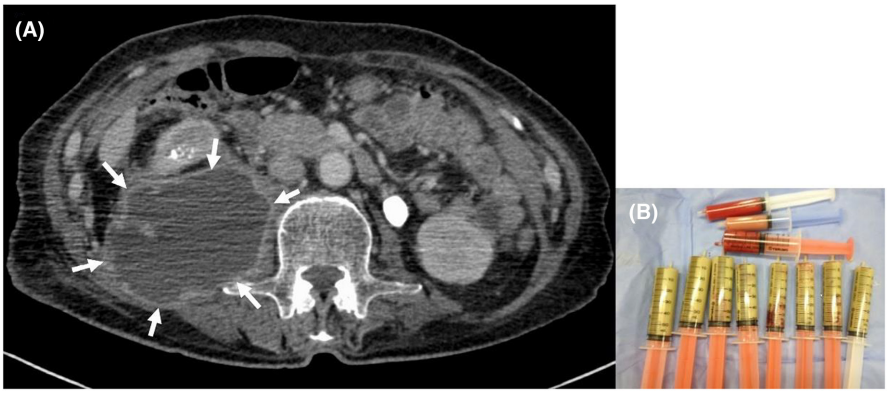

FIGURE 1 (A) Axial view of abdominal computed tomography showing a gigantic right psoas abscess (arrow). (B) Abscess more than 350 mL aspirated by percutaneous drainage.

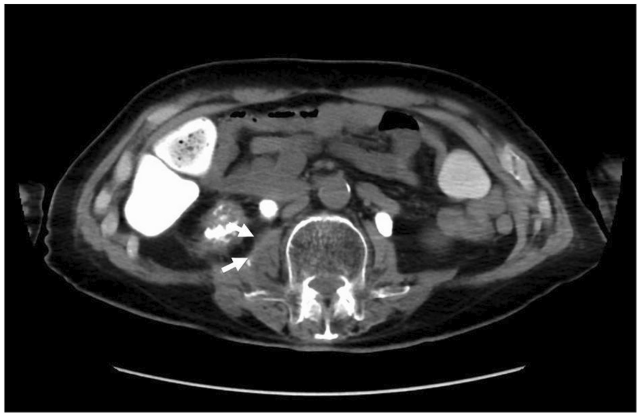

FIGURE 2 Axial view of abdominal computed tomography showing disappearance of right iliopsoas abscess (arrow).

or abdominal pain; poor coordination; and loss of motor control due to AD.

Laboratory studies demonstrated a white blood cell (WBC) count of 10,800 (reference value: <8000), erythrocyte sedimentation rate of 84 mm/h (reference value: <10 mm/h), and C-reactive protein (CRP) level of 5.69 mg/dL (reference value: <0.3 mg/dL). Blood culture revealed the presence of methicillin-resistant *Staphylococcus aureus*. Thoracic and abdominal computed tomography revealed partial atelectasis in the right lower lobe of the lung and infiltrative shadows in both lower lobes of the lung, as well as bilateral kidney stones, bladder stones, and hydronephrosis. An enlarged right psoas major muscle and iliopsoas muscle with a 70 × 80 mm low signal area were observed. (Figure 1A) The margins were enhanced in a ring shape, which was considered as an abscess. The patient then underwent percutaneous drainage of the abscess and antimicrobial administration. A total of 350 mL of fluid was aspirated (Figure 1B) and methicillin-resistant *S. aureus* was detected. After drainage, his fever disappeared, his WBC count decreased to 8000, and CRP to 0.72 mg/dL. However, 4 months after drainage, the abscess returned. Laboratory studies revealed a WBC count of 17,400 and CRP level of 9.23 mg/dL. Percutaneous drainage was performed again, and 400 mL of fluid was aspirated. Similar to the previous instance, the fever abated, and the inflammatory findings improved after drainage (CRP level, 0.72 mg/dL). There was no recurrence of the abscess for 1 year (Figure 2); however, a year after the second drainage, the patient expired due to respiratory failure caused by AD.

3 | DISCUSSION

Alexander's disease, a rare neurodegenerative ailment caused by the glial fibrillary acidic protein (GFAP) gene, is growing in adult-onset cases. Pyramidal lesions, cerebellar ataxia, dysuria, and sleep problems are prevalent, although the clinical picture is not specific.[1] This case had difficulty swallowing and speaking, poor coordination, and a loss of motor control due to AD.

Iliopsoas abscess (IPA) typically has three symptoms: fever, back pain, and pseudo-flexion deformity,[2] but patients with communication difficulties may be unable to report symptoms, which may delay detection of an IPA and cause it to grow to an excessive size.

IPA usually will not restrict hip joint movement though can produces pseudo-flexion deformity, which is one of the points of differentiation from septic arthritis of hip.

IPA is easy to identify with a CT scan and ultrasonography. These examinations should be conducted quickly when fever causes communication problems.

Percutaneous drainage of the iliopsoas abscess is a minimally invasive, efficient, and safe procedure with good clinical recovery.[3] In many cases, surgery with a high risk of morbidity and mortality can be avoided. This procedure is a significant option for patients who are unable to undergo surgery due to poor clinical status or other contraindications.

AUTHOR CONTRIBUTIONS

Masatsugu Tsukamoto: Conceptualization; formal analysis; investigation; methodology; project administration; writing – original draft. **Tadatsugu Morimoto:** Conceptualization; supervision; writing – original draft; writing – review and editing. **Takaomi Kobayashi:**

Writing – review and editing. **Hirohito Hirata:** Writing – review and editing. **Tomohito Yoshihara:** Writing – review and editing. **Masaaki Mawatari:** Supervision; writing – review and editing.

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The authors have no conflict of interest to declare.

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CONSENT
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