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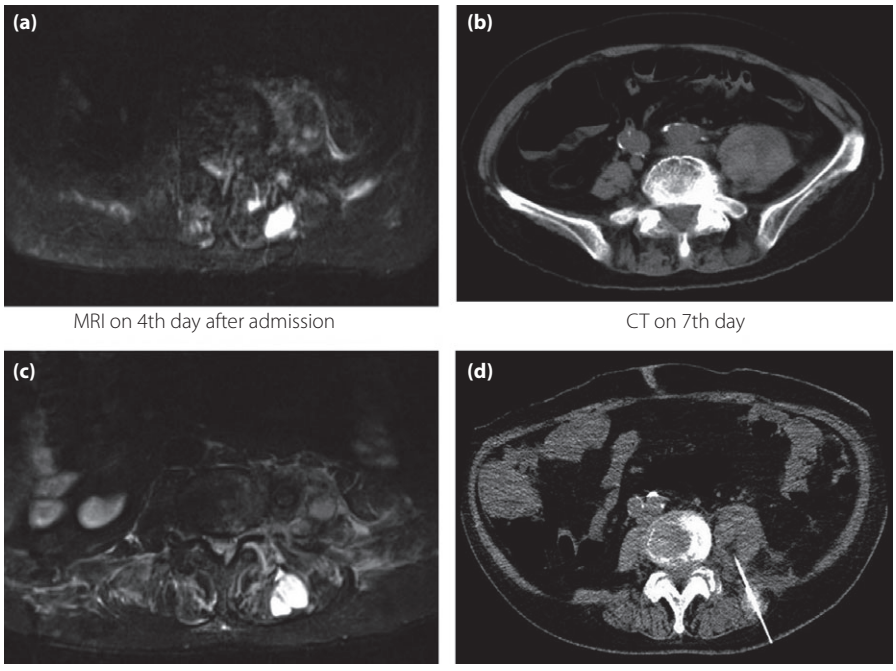
LETTER TO THE EDITOR

Case of iliopsoas abscess that was markedly recovered after percutaneous and surgical drainage in a patient with poorly controlled type 2 diabetes

A 77-year-old woman who had been suffering from type 2 diabetes for 12 years, which was poorly controlled (glycated hemoglobin was fluctuating around 9%), complained of left lower quadrant abdominal pain and visited the hospital. Although she was afebrile, laboratory test showed elevated white blood cells (12,000/μL) and C-reactive protein (31.68 mg/dL), and she was hospitalized. On physical examination, small wounds were confirmed on her both elbows, as she fell down and hit her hips several times a week before the onset of abdominal pain. Wounds were 2–3 cm in diameter and partially wet, which had already become dried scabs in most parts.

Chest and abdominal X-rays were normal, and there was no significant finding in abdominal ultrasonography. Urinary test was negative for urinary tract infection. As the patient had a history of Stevens Johnson syndrome after contrast agent use, non-enhanced computed tomography (CT) scan was carried out, which showed no specific finding. On the day of admission, cefmetazole (1 g) was given once, but high-grade fever over 40°C and shivering developed, suggesting that the patient had become septic. Therefore, we started tazobactam/piperacillin (4.5 g/every 8 h) and vancomycin (0.5 g/every 12 h). Transthoracic ultracardiogram did not show any sign of infectious endocarditis. In lumber magnetic resonance imaging (MRI) on the fourth day after admission, a high-intensity area in the left iliopsoas muscle at the L4/5 level was observed, which led to the diagnosis of iliopsoas abscess (Figure 1a). Methicillin-sensitive *Staphylococcus aureus* was detected in blood culture. Therefore, vancomycin was discontinued. On CT on day 7, the left iliopsoas muscle was markedly enlarged (Figure 1b). MRI on day 11 showed that the lesion was multiocular (Figure 1c). As white blood cells were elevated to 25,000/μL and did not decrease even after continuous antibiotic treatment, percutaneous drainage under CT guidance was carried out (Figure 1d). Approximately 8 mL of yellowish pus was aspirated, which was found to be positive for methicillin-sensi-



MRI on 4th day after admission
CT on 7th day
MRI on 11th day
Drainage under CT guidance on 11th day

Figure 1 | (a) Magnetic resonance imaging on day 4 after admission. (b) Computed tomography on day 7. (c) Magnetic resonance imaging on day 11. (d) Drainage under computed tomography guidance on day 11.

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tive *S. aureus*. In addition, for the complete recovery from such an abscess, the patient underwent surgical drainage on day 15. After then, her general status was improved, tazobactam/piperacillin was de-escalated to sulbactam/ampicillin (3 g/every 12 h) on day 22 and the antibiotic was changed to oral administration of clavulanic acid/amoxicillin on day 41. Finally, C-reactive protein and white blood cells were decreased to 1.3 mg/dL and 5,100/μL, respectively, and she was discharged without any complications.

Iliopsoas abscess is an uncommon disease, which is difficult to diagnose. Risk factors include diabetes and various forms of immunosuppression, such as alcohol addiction, steroid use, malnutrition and HIV infection. The classic presentation includes fever, and back and limb pain[1]. In the present case, there was a slight delay in the diagnosis, as the most prominent symptom was abdominal pain, which was not typical for iliopsoas abscess, and we could not carry out enhanced CT because of a past history of Steven Johnson syndrome. This patient was a poorly controlled diabetic, and methicillin-sensitive *S. aureus* might have been hematogenously spread from her elbow wounds. In addition, this patient was taking two antiplatelet agents for old myocardial infarction, which might have induced microbleeding in the iliopsoas muscle when she fell down and hit her hips, and this might have accelerated bacterial growth in the iliopsoas muscle.

When an iliopsoas muscle abscess is suspected, CT is generally the investigation of choice with the highest sensitivity. In contrast, MRI provided diagnostic significance in the present case, as we could not carry out enhanced CT. If we could have carried out enhanced CT on the first day of admission, it might have led to earlier diagnosis. Considering the case in the present study, when enhanced CT is not available or contraindicated, MRI could be a very useful alternative for diagnosis.

In addition, we believe that it is important to carry out surgical drainage in addition to antibiotic therapy in the case of large, complex or loculated abscesses. Indeed, it was reported that failure rates of percutaneous drainage alone were as high as 60%, and that 44% of patients ultimately required open drainage[2].

Taken together, when iliopsoas abscess is suspected, physicians should survey patients by CT scan or MRI, and should consider invasive treatment including surgical drainage.

DISCLOSURE

The authors declare no conflict of interest.

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