

Introduction & Aim

Aggregatibacter aphrophilus is a Gram-negative coccobacillus that usually causes endocarditis and periodontal infection but it is rarely associated with serious bone and joint infections. We describe the diagnosis and management of a case of lumbosacral spondylodiscitis caused by *A. aphrophilus*.

Methods

We report the case of lumbosacral spondylodiscitis in a 43-year-old woman, without known predisposing conditions.

Results

A 43-year-old woman was admitted to Infectious Diseases department with severe low back pain and fever (39°C). Laboratory tests showed a normal white blood cell count (9,680 cells/ μ L; neutrophils 80%), elevated C-reactive protein (155 mg/L), and mildly increased procalcitonin (0.57 μ g/L). Three sets of blood cultures were collected and all yielded *A. aphrophilus*; the isolate was susceptible to ampicillin, amikacin, ceftriaxone, meropenem, ciprofloxacin, and trimethoprim–sulfamethoxazole. A lumbosacral magnetic resonance imaging (MRI) was performed and showed L4–S1 spondylodiscitis, with involvement of the left anterior paravertebral space (Figure 1). Echocardiography showed no evidence of valvular vegetations or structural abnormalities. Dental examination was unremarkable for active infectious foci.

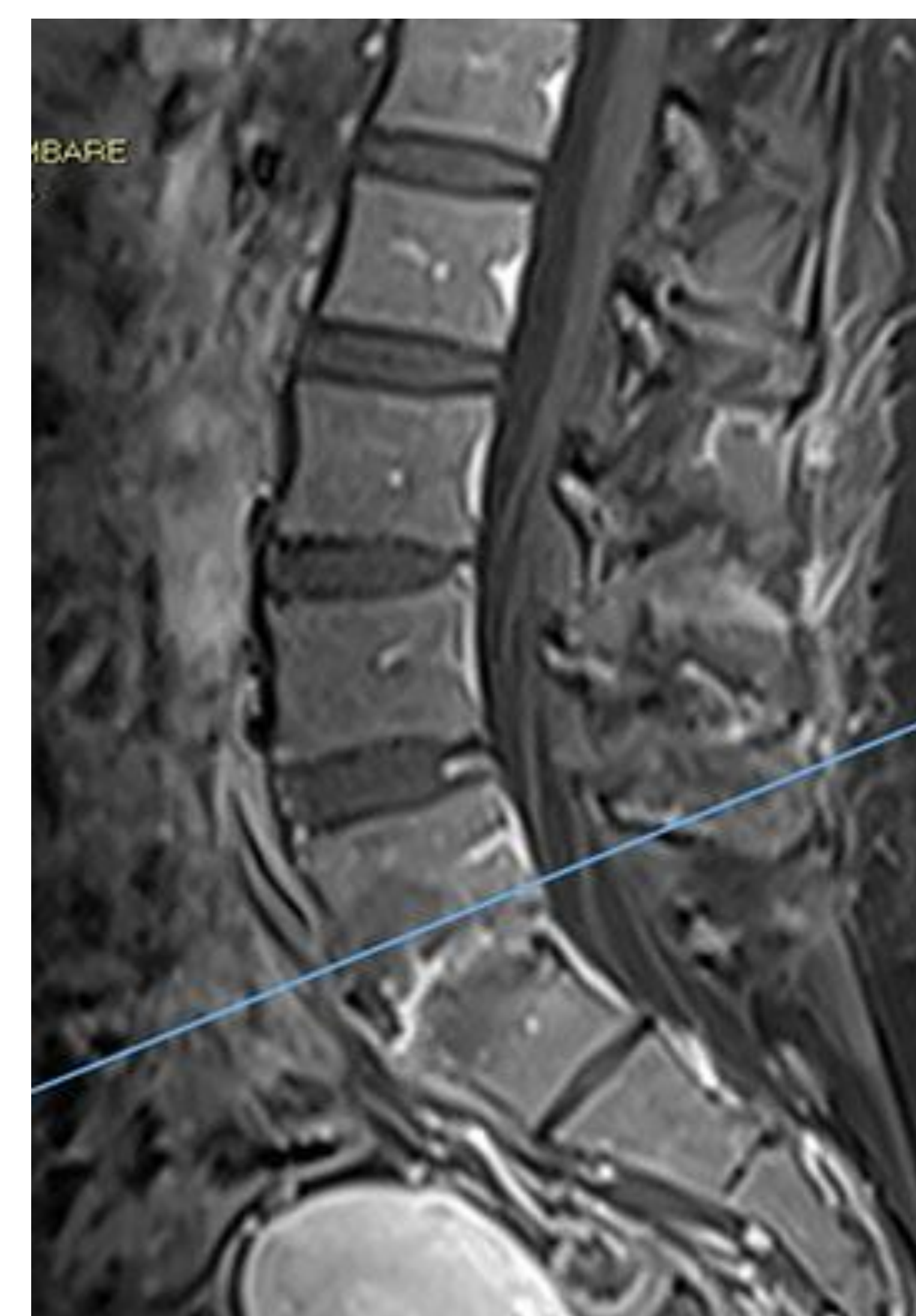


Fig.1 Contrast-enhanced T1-weighted MRI before antibiotic treatment

Empiric intravenous antibiotic therapy was initiated with ceftriaxone. Due to persistent fever, ciprofloxacin was added. After seven days of combination therapy, the patient achieved sustained apyrexia and a progressive decline in inflammatory markers. However, upon discontinuation of acetaminophen, administered for analgesic purposes, fever recurrence was observed. Blood cultures remained negative. Fluorodeoxyglucose positron emission tomography/computed tomography (FDG PET/CT) was performed to further investigate the persistent inflammatory status, showing a marked tracer uptake at the lumbosacral junction, corresponding to the previously described lesion with no cardiac uptake (Figure 2).

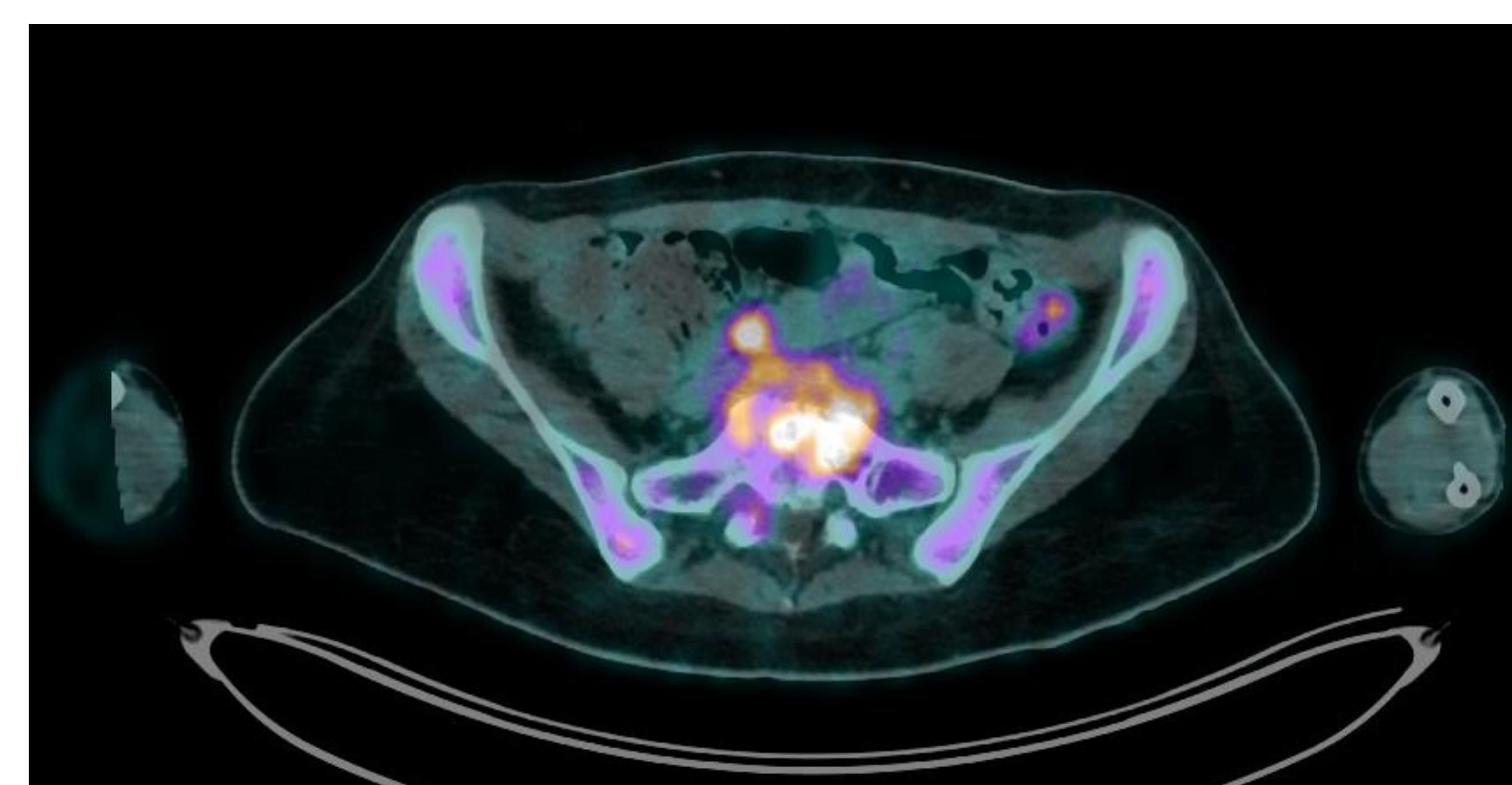


Fig.2 FDG PET-CT before antibiotic treatment

In the following days, fever and pain substantially improved and eventually resolved. The antibiotic treatment was then switched to oral regimen with amoxicillin and ciprofloxacin. This regimen was continued for a total treatment duration of 12 weeks. A follow-up PET/CT performed at the end of the treatment course demonstrated a marked reduction in radiotracer uptake at the lumbosacral site, confirming a significant metabolic response and resolution of the infectious process (Figure 3).

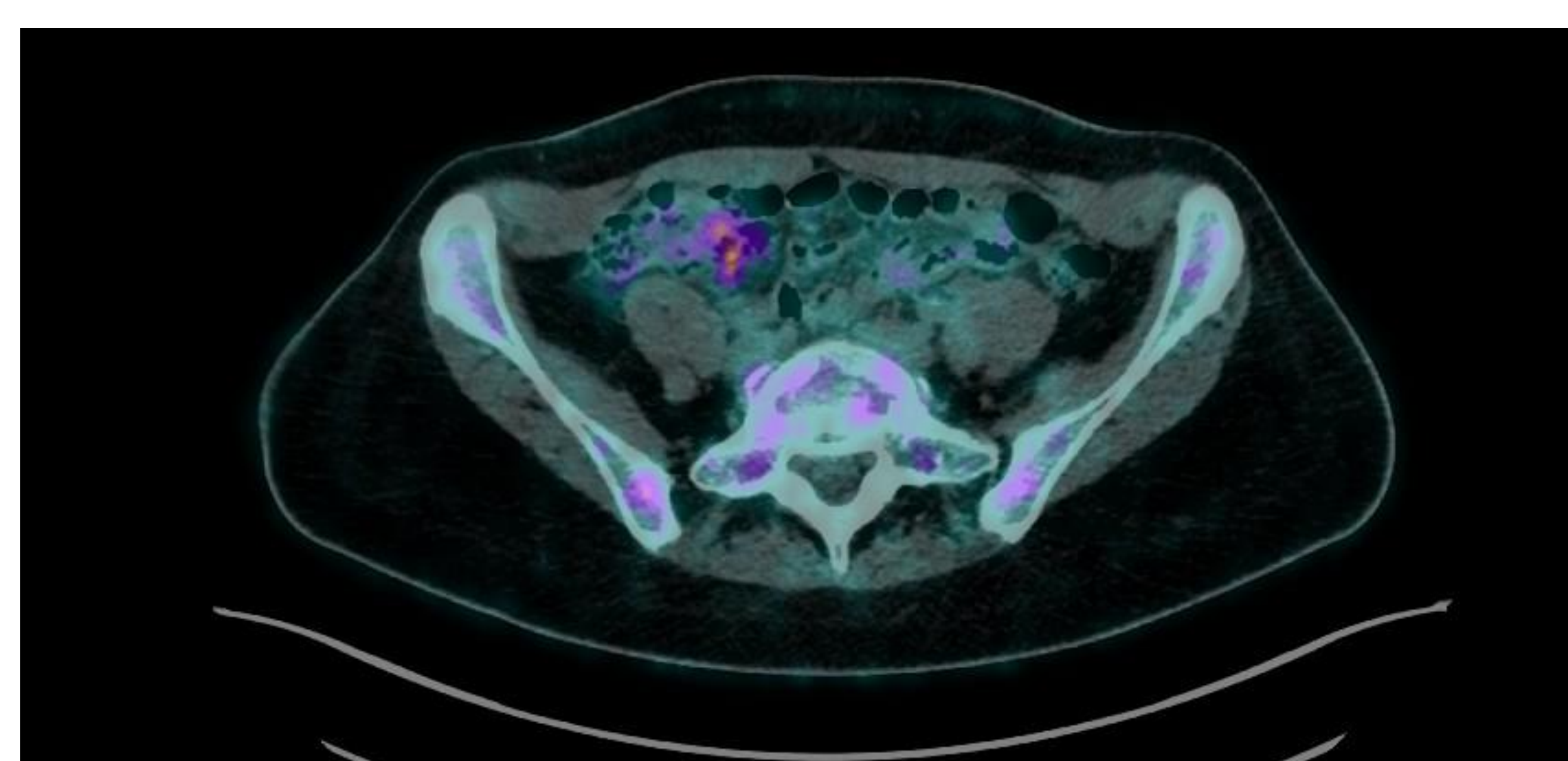


Fig.3 FDG PET-CT post antibiotic treatment

Conclusions

In this unusual clinical case of vertebral osteomyelitis sustained by *A. aphrophilus* the patient fully recovered with 12 weeks of antibiotic treatment. No relapse or sequelae have been observed during the current follow up period.