

Clostridium sordellii pelvic abscess as the first sign of an underlying gastrointestinal malignancy



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INTRODUCTION

Clostridium sordellii is a rare gram-positive anaerobe associated to cause lethal infections after childbirth, penetrating injuries, and routine gynecological procedures. In the literature review, very few cases of *C. sordellii* infection in patients with underlying malignancy have been reported, and it was interesting to note that most of these malignancies were gastrointestinal (GI) and genitourinary (GU) in origin

CASE DESCRIPTION

- ❖ A 68-year-old female with a past medical history of well-controlled T2DM presented to the hospital with non-radiating left hip pain associated with fevers, and generalized weakness for four days.
- ❖ The patient denied any history of recent falls, osteoarthritis, rheumatological diseases, steroid use, and weight loss.
- ❖ Family, surgical, and social history were noncontributory.
- ❖ On admission, vitals signs were normal except for blood pressure 86/60mmHg, and heart rate 109bpm. Physical examination was significant for non distended abdomen, with approximately 5x5cm irregular tender suprapubic mass with erythema on the overlying skin. Normal DRE. The musculoskeletal exam showed externally rotated and abducted left hip with severe tenderness over the left hip joint.
- ❖ Laboratory studies are displayed in table 1.

Laboratory studies	
WBC	18.9 x10 ³ /μL
ABG	pH 7.04, pCO ₂ 11.1, pO ₂ 133, HCO ₃ <5
Venous lactate level	4 mmol/L
Procalcitonin	1.78 ng/mL
C. difficile PCR	Negative

Table 1

INVESTIGATIONS

- ❖ CT Abdomen and pelvis: gas containing soft tissue mass in the left pelvis suspicious for an abscess with an irregular osteolytic lesion of the left acetabulum and superior pubic ramus concerning malignancy vs osteomyelitis (Figure 1, 2).
- ❖ MRI Pelvis without contrast: multifocal osseous lesions involving numerous bones and the visualized portion of the lumbar spine with a large lesion in the L3 vertebral body, indicating malignancy.
- ❖ The patient underwent image-guided percutaneous drainage of the abscess, and body fluid was sent for culture and sensitivity.
- ❖ Blood cultures were negative, and pelvic abscess fluid grew *Clostridium sordellii* in the anaerobic bottle.

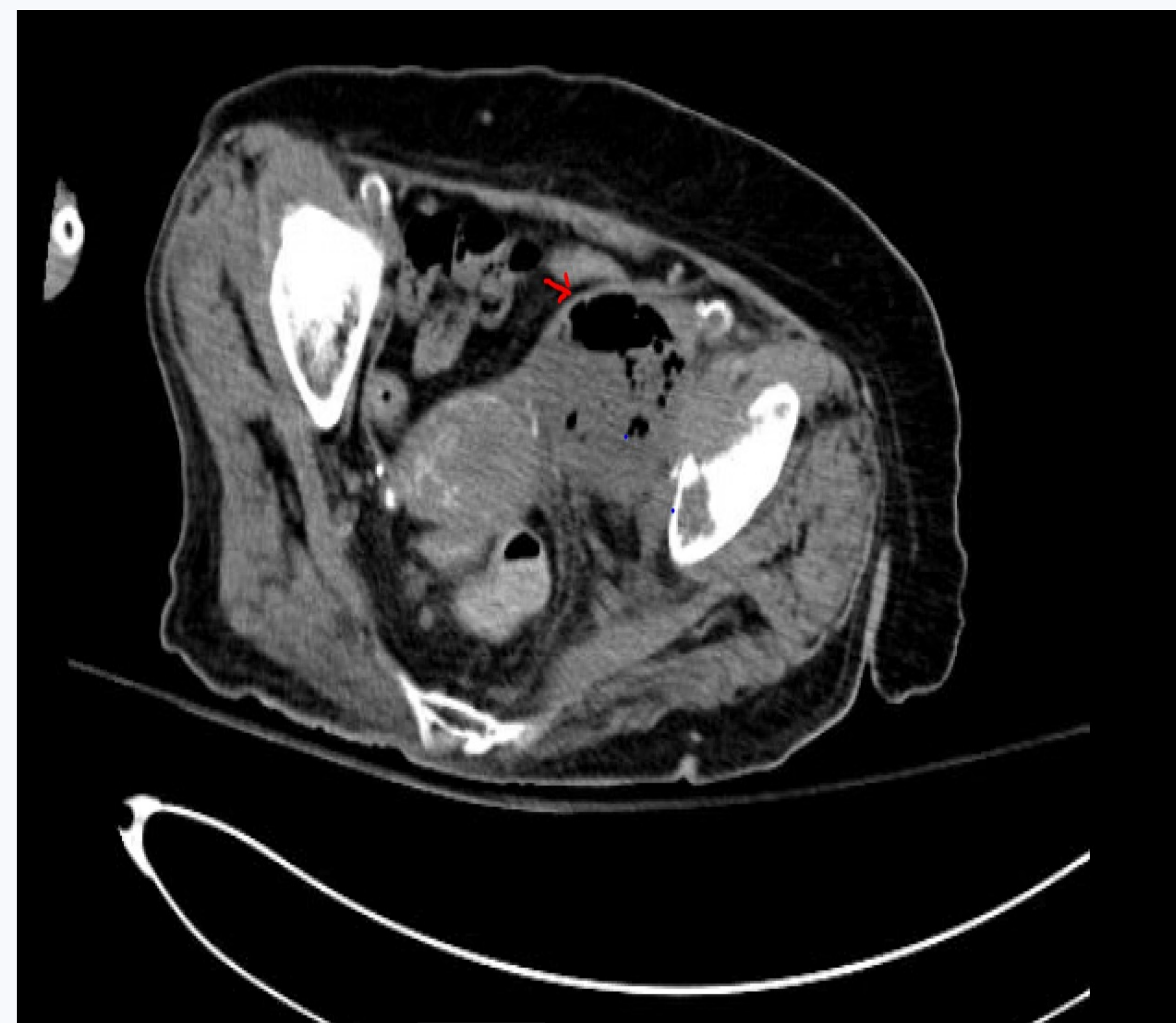


Figure 1

TREATMENT AND OUTCOME

- ❖ The patient was initially started on broad-spectrum antibiotics (Meropenem, Clindamycin, and Vancomycin) and was later downgraded to Meropenem based on culture and sensitivity.
- ❖ Pathology report of the pelvic bone confirmed Squamous cell carcinoma with basaloid features, likely rectal carcinoma with no histopathological evidence of osteomyelitis.
- ❖ Given the extent of malignancy, no surgical intervention was recommended, and the patient opted for palliative care.



Figure 2

Figure 1, Figure 2: CT Abdomen and Pelvis without contrast in cross sectional and longitudinal view showing 7.6 x 5.7 x 5.5 cm poorly marginated gas containing soft tissue mass in the left pelvis suspicious for an abscess (pointed by red arrow in Figure 1 and green lines in Figure 2)

DISCUSSION

- ❖ Infections by *C. sordellii* are uncommon entities, that have been linked to a high mortality rate, especially in immunocompromised patients.
- ❖ The risk factors for *C. sordellii* infection are trauma, intravenous (IV) drugs, septic medical abortions, cholangitis, bacteremia, skin infections, intraabdominal and pelvic abscess, infective endocarditis, etc. Malignancy and immunosuppression further increase the risk to develop *C. sordellii* infection and have fatal outcomes.
- ❖ GI malignancies have been associated with *C. sordellii* infections based on the review of a few case reports. In our patient, the port of entry of the bacteria is postulated to be from the breach in the rectal mucosa in the background of underlying malignancy.
- ❖ Early identification, initiation of treatment with antibiotics, and surgical drainage of the abscess with debridement of the necrotic tissue have been shown to improve mortality outcomes. Antibiotic susceptibility data for *C. sordellii* show sensitivity to Beta Lactams, Metronidazole, and Clindamycin, but resistance to aminoglycosides, tetracyclines, and sulfonamides.

CONCLUSIONS

- ✓ *C. sordellii* infections are increasingly being associated with GI malignancies, posing the question of whether we need to be more aggressive in screening these patients for underlying cancers.

The authors have no conflicts of interest to declare that are relevant to the content of this poster.

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