

## Introduction

*Staphylococcus Aureus* is a leading cause of community-acquired and hospital-acquired bacteremia.<sup>1</sup> Methicillin Sensitive *Staphylococcus Aureus* (MSSA) infections are a relatively common occurrence in the hospital. Despite the commonality of this organism, we still see complicated infections. Source control is an extremely important part of the treatment of bacterial infections. We present here a patient with a complex presentation of MSSA bacteremia where lack of source control resulted in catastrophic complications.

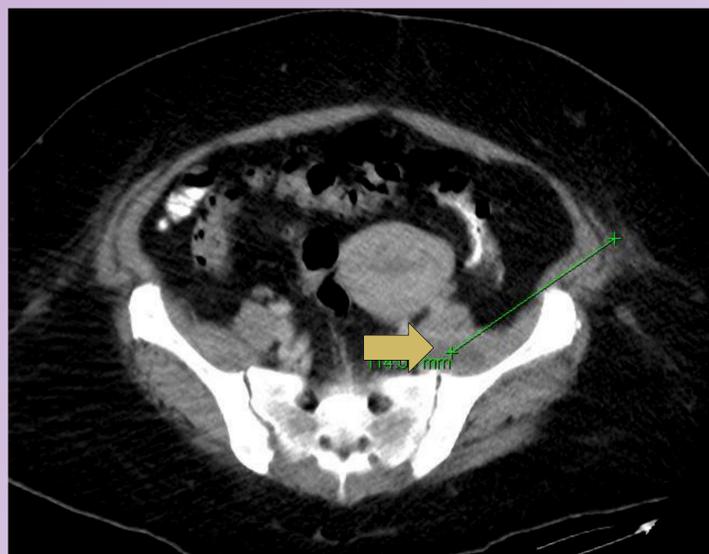


Figure 1.



Figure 2.

## Case Description

A 51-year-old female with a past medical history of depression, anxiety, hypothyroidism presented to the emergency department with an acute onset of back pain after lifting a heavy object. She was initially treated conservatively and discharged home. Her pain continued to worsen and she presented again to the hospital with continued worsening pain. She did not have any neurologic deficits on exam but had significant pain. Her initial lab work is showed in figure 3. Her urine culture resulted in pan-susceptible E.Coli and blood cultures grew MSSA bacteremia. The Infectious Disease team was consulted started the patient on vancomycin and cefazolin. Imaging showed bilateral iliopsoas muscle abscesses, possible pelvic abscess, and evidence of sacroiliitis (Fig 1, 2). She was taken for lumbar laminectomy and drainage of her epidural abscess and Interventional Radiology attempted to drain her multiple infectious sites unsuccessfully. The patient's clinical status continued to deteriorate and her family elected to pursue comfort measures and the patient expired after 38 days of hospitalization.

### Noted complications:

- ARDS
- Cerebral infarcts
- DVT/ PE
- Encephalopathy

### Antibiotic treatment days:

- Cefazolin- 18
- Cefepime- 17
- Doxycycline- 2
- Linezolid- 3
- Meropenem- 10
- Vancomycin- 21

Test	Result
Sodium	125
Potassium	3.6
BUN	47
Creatinine	1.63
AST	156
ALT	93
Alk phos	378
T bili	4.6
Troponin	0.02
NT proBNP	887
INR	1.1
WBC	32.9
Hemoglobin	12.8
Platelets	12.8
CRP	33

Figure 3.

## Discussion

Mortality for SAB has been described as high as 32%.<sup>2</sup> When suspecting a staphylococcus aureus bacteremia (SAB) infection empiric treatment is often necessary before cultures have resulted. The best treatment options at this time are vancomycin with some recommendations encouraging cefazolin or nafcillin as well with plans to de-escalate when workup is complete. Despite initiating a broad treatment course, not having adequate source control can result in devastating outcomes such as seen in this case. Psoas muscle abscesses have been described before in SAB, although somewhat rare can be a difficult location to access for eradication of infection.<sup>3</sup> Psoas muscle abscess is a particularly infectious source to treat.

## Conclusion

We present a case illustrating the potential complications of MSSA infections and highlight the importance of adequate source control as early as possible.

## References

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2. Mylotte JM, McDermott C, Spooner JA. Prospective study of 114 consecutive episodes of *Staphylococcus aureus* bacteremia. *Rev Infect Dis.* 1987;9(5):891-907. doi:10.1093/clinids/9.5.891
3. David Bellin, Eric Chun-Pu Chu. *Staphylococcus aureus* Bacteremia Complicated by Psoas Abscess. *American Journal of Medical Case Reports.* Vol. 3, No. 11, 2015, pp 383-386. <http://pubs.sciepub.com/ajmcr/3/11/10>