

INTRODUCTION

Gram-positive bacteremia is commonly encountered in the hospital setting as staphylococcus and streptococcus species are often the most implicated organisms. Here, we describe a clinically relevant and novel gram-positive organism causing bacteremia. Given the paucity of literature regarding source of infection as well as clinical/antimicrobial management, it is critical for physicians to start understanding the role and pathogenesis of this organism regarding potential sequelae and proper treatment.

CASE DESCRIPTION

A 55-year-old female with history of severe peripheral vascular disease status post below the knee amputation (BKA) presented to the hospital with acute encephalopathy presumed to be caused by a complicated urinary tract infection. Urine culture was positive for *Proteus mirabilis*, for which she remained on ceftriaxone prior to obtaining susceptibility results. Subsequently, two of two blood cultures were positive for gram positive cocci not consistent with methicillin-sensitive *Staphylococcus aureus* or methicillin-resistant *Staphylococcus aureus* by polymerase chain reaction testing. The laboratory was unable to grow the organism for identification or susceptibilities and therefore required to be sent to ARUP Laboratories in Salt Lake City, UT for further characterization and identification of the organism.

RESULTS

Aerobic Organism Identification with Reflex to Susceptibility		Collected: 6/17/2021 22:03 MT
ARUP test code 0065070		Started: 6/22/2021 2:11 MT
Source: Blood		
Body Site: Blood		
Free Text Sources: Blood		
Final Report		
Jeotgalicoccus schoeneichii		
Identification by DNA sequencing. This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.		
Susceptibility Results		
Organism: Jeotgalicoccus schoeneichii		
Daptomycin	Interpretation: NO INTERPRETATION	MIC (ug/mL): 0.12
Gentamicin	Interpretation: NO INTERPRETATION	MIC (ug/mL): <=2
Linezolid	Interpretation: NO INTERPRETATION	MIC (ug/mL): 0.5
Oxacillin	Interpretation: NO INTERPRETATION	MIC (ug/mL): 0.12
Penicillin	Interpretation: NO INTERPRETATION	MIC (ug/mL): <=0.03
Rifampin	Interpretation: NO INTERPRETATION	MIC (ug/mL): <=0.25
Vancomycin	Interpretation: NO INTERPRETATION	MIC (ug/mL): 0.5
S=Susceptible, I=Intermediate, R=Resistant, NonS=Nonsusceptible, IND=Indeterminate, SDD=Susceptibility is dose dependent, None=Interpretive guidelines are not available		
H=High, L=Low, *=Abnormal, C=Critical		

Figure 1: Laboratory susceptibility results of *Jeotgalicoccus schoeneichii*.

CASE DESCRIPTION (CONT.)

The patient had extensive evaluation for source of the bacteremia and was ultimately determined to be originating from their chronic non-purulent draining wound stump of their BKA. Final lab identification was *Jeotgalicoccus schoeneichii*. Susceptibility results finalized as “no interpretation” for each antibiotic tested, and ceftriaxone was not included among the antibiotics tested. The patient remained on ceftriaxone for a total of 2 weeks after the second set of blood cultures was negative and she was discharged in stable condition.

CONCLUSION

Jeotgalicoccus schoeneichii is a gram-positive bacterium that has only recently (2016) been isolated from exhaust air of a pig farm in Germany. The genus *Jeotgalicoccus* is part of the family *Staphylococcaceae* and the species name *schoeneichii* is in recognition of Rüdiger Schöneich’s achievements in occupational bioaerosol analysis. The clinical significance of this organism is still unclear. The patient had no known exposures to pig farms or any other zoonotic exposures leading up to her hospitalization. Understanding novel organisms and their management is vital in a world of evolving biodiversity.



Figure 2: Picture of BKA site wound demonstrated source of infection.

REFERENCES

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- Podstawka A. *Jeotgalicoccus schoeneichii* 140805-STR-02 | Type strain | DSM 102815, CCM 8667, LMG 29445 | BacDiveID:132617. bacdive.dsmz.de. Accessed October 5, 2021. <https://bacdive.dsmz.de/strain/132617>