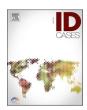


Contents lists available at ScienceDirect

IDCases

journal homepage: www.elsevier.com/locate/idcases





Silver-colored colonies of Staphylococcus argenteus

Jun Hirai a,b,*, Nobuaki Mori a,b, Daisuke Sakanashi b, Nobuhiro Asai a,b, Hiroshige Mikamo a,b

- ^a Department of Clinical Infectious Diseases, Aichi Medical University Hospital, Aichi, Japan
- ^b Department of Infection Control and Prevention, Aichi Medical University Hospital, Aichi, Japan

ARTICLE INFO

Kevwords:

Silver

Gold

Colony

Staphylococcus argenteus

Staphylococcus aureus

We present a case of a 74-year-old man with Staphylococcus argenteus bacteremia from a shunt used during hemodialysis. The gram-positive organism isolated from the blood culture was initially identified as S. aureus by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. However, the isolated pathogen formed silver colonies (Fig. 1A), which is atypical for S. aureus, which typically forms gold colonies (Fig. 1B). Genetic analysis revealed the isolated strain was S. argenteus, a new subspecies under S. aureus [1]. S. argenteus forms its characteristic silver colony due to the absence of the carotenoid pigment staphyloxanthin [1]. A recent study revealed S. argenteus bacteremia has a higher mortality rate than S. aureus bacteremia [2]. Physicians also should be aware that although S. argenteus may be pathogenically similar to S. aureus, its characteristic silver-colored colonies may aid in its identification because identifying S. argenteus by conventional microbiology methods is difficult as described in this case.

CRediT authorship contribution statement

J.H. contributed to the writing as a first author and editing of the manuscript. N.M. contributed to the Conceptualization and review of

the manuscript. N.A. and H.M. contributed to Supervision and Validation.

Ethical approval

The ethics committee of our institution approved the waiver in this case report, based on the Japanese ethical guidelines for clinical research to publish the case details.

Consent

Written informed consent was obtained from the patient for the publication of this report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Conflict of interest

We declare that all authors have no Conflict of Interest (COI).

^{*} Correspondence to: Department of Clinical Infectious Diseases, Aichi Medical University, 1-1 Yazakokarimata, Nagakute-shi, Aichi 480-1195, Japan. E-mail address: hiraichimed@gmail.com (J. Hirai).

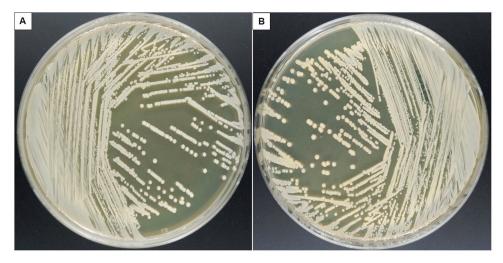


Fig. 1. Silver colonies of S. argenteus (Fig. 1A) and gold colonies of S. aureus (Fig. 1B) on BBL Trypticase Soy Agar (Becton, Dickinson and Company).

Acknowledgments

We would like to thank Editage (www.editage.com) for English language editing.

References

[1] Becker K, Schaumburg F, Kearns A, et al. Implications of identifying the recently defined members of the Staphylococcus aureus complex S. argenteus and S.

- schweitzeri: a position paper of members of the ESCMID Study Group for Staphylococci and Staphylococcal Diseases (ESGS). Clin Microbiol Infect 2019;25: 1064-70
- [2] Chen SY, Lee H, Wang XM, et al. High mortality impact of Staphylococcus argenteus on patients with community-onset staphylococcal bacteremia. Int J Antimicrob Agents 2018;52:747–53.