LearnInfection
a learning platform for infection trainees

Staphylococcus argenteus

Severn Deanery **Bug of the Week**
10.12.2018

Identification:
Previously mis-identified as *S. aureus* as laboratory tests **cannot distinguish** between the two (catalase pos, tube coagulase positive, beta hemolytic). It has a 10% divergent lineage.
Sometimes known as the "**silver staph**" due to the lack of staphyloxanthin which produces the characteristic golden appearance.
Identified on some MALDI-TOF

Figure 1: Chocolate plate showing *staph argenteus* (left) and *staph aureus* (right)

https://10minus6cosm.tumblr.com/post/166842199346/staphylococcus-argenteus-the-silver

Prevalence:
First described in Northern Australia in 2009 but has been identified in South East Asia. Due to problems in identification the true prevalence is unknown.

Clinical Manifestations:
Data from Australia highlighted that is was commonly associated with skin and soft tissue infection. A paper from Taiwan identified that *S.argenteus* was more commonly found in patients with **recent hospitalisation** and were more frequently associated **with lower respiratory tract infections.** Interestingly in their cohort the mortality was higher than *S.aureus* despite being more sensitive on in vitro testing.

Take home point:
Carries virulence genes as per *S aureus*
Causes disease as per *S aureus*.
THIS IS NOT A CONTAMINANT. ADVISE TREATING AS PER *S.AUREUS*
ESCMID advise reporting as a member of the S aureus complex for routine reporting to avoid confusing clinicians

References
Tong SY, Schaumburg F, Ellington MJ, Corander J, Pichon B, Leendertz F, Bentley SD, Parkhill J, Holt DC, Peters G, Giffard PM. 30 September 2014. Novel staphylococcal species that form part of a *Staphylococcus aureus* related complex: the non-pigmented *S. argenteus* sp. nov. and the non-human primate associated *S. schweitzeri* sp. nov. Int J Syst Evol Microbiol
Chen SY, Lee H, Wang XM, Lee TF, Liao CH, Teng LJ, Hsueh PR August 2018 High mortality impact of Staphylococcus argenteus on patients with community-onset staphylococcal bacteraemia. Int J Antimicrob Agents