Slide coagulase positive, tube coagulase negative Staphylococcus aureus

We read with interest the letter by Smyth et al.1 and wish to report a similar organism isolated recently at our hospital. The organism was grown in six blood culture bottles from a 14 year old boy with hypertrophic cardiomyopathy. An extensive intramyocardial abscess was seen on echocardiography. The isolate was rapidly and unequivocally positive using fibrinogen sensitised sheep erythrocytes in a slide test to detect clumping factor (Staphyslide-Test, BioMérieux, France). Tube coagulase testing was repeatedly negative. The isolate was strongly DNase positive and produced acid aerobically from maltose, trehalose, mannitol, mannose and sucrose but not from xylose, cellobiote, nor raffinose. Nitrate was reduced, aceticin was produced, and the organism was sensitive to novobiocin. These tests confirmed the identification as Staphylococcus aureus.

We are at present changing our laboratory procedure from routinely performing tube coagulase testing in all staphylococci to the use of “Staphyslide” to test for S aureus with tube coagulase an an additional test for “Staphyslide” negative colonies. From over 300 tests run in parallel we have yet to find a false positive or a false negative slide test for a methicillin sensitive S aureus.

In the light of the experience with these cases, ours, and that of Smyth et al, laboratory staff should be aware of the rare occurrence of false negative tube coagulase tests. We consider “Staphyslide” to be a sensitive and specific test for speciation of S aureus and suggest that its use should be considered for early identification of S aureus.

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References


Dr Hasleton et al comment:

We thank Professor Michaels for his comments, but we would like to make several points. Hair follicles are not mentioned in the...