An unusual microorganism, Aerococcus viridans, causing endocarditis and aortic valvular obstruction due to a huge vegetation

Which Aerococcus?

Dear Editor,

I read with interest the case report by Çalık et al. concerning a patient with endocarditis that did not respond to seemingly adequate antibiotic treatment. The authors typed the causative organism with an API test strip as Aerococcus viridans and discussed this bacterium.\[1\]

A. viridans was described in 1953\[2\] and additional aerococcal species including A. urinae\[3\] and A. sanguinicola\[4\] have been defined since then. A. viridans and A. sanguinicola have similar biochemical properties,\[5\] but the latter seems to be more commonly isolated from infected patients.\[6\] Importantly, the API system used by Çalık et al. fails to recognize A. sanguinicola and misclassifies this species as A. viridans.\[6\] Thus, it is possible that the organism causing the infection described by Çalık et al. is not A. viridans but A. sanguinicola. This potential misidentification may have occurred in many cases where A. viridans was identified only on the basis of the API or Vitek2 systems. Since biochemical typing of aerococci is difficult, 16S rRNA gene PCR and sequencing would be helpful to clarify the bacterial etiology in this interesting case.

Sincerely yours.

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The authors’ reply

Dear Editor,

First of all, we appreciate our reader’s contribution and attention to our case report. As the reader points out, A. viridans and A. sanguinicola have similar biochemical properties\[1\] and therefore the API system may fail to recognize A. sanguinicola and misclassify this species as A. viridans.\[2\] However, in our microbiology laboratory, to solve this problem, we are making a serious effort to verify all A. viridans cases with the Vitek2 system, after identification with the API system. In our case, A. viridans which was identified by the API system was further verified by the Vitek2 system. In our opinion, A. viridans was the potential agent in our case. By the way, the 16S rRNA gene PCR method which can be used to identify A. sanguinicola is not routinely used in our country.

Sincerely,

On behalf of the authors,

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