Editöre Mektup — Letter to the Editor

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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Conflict-of-interest issues regarding the authorship or article: None declared

1. Çalık AN, Velibey Y, Çağdaş M, Nurkalem Z. An unusual microorganism, *Aerococcus viridans*, causing endocarditis and aortic valvular obstruction due to a huge vegetation. Türk Kardiyol Dern Arş 2011;39:317-9.
2. Williams RE, Hirch A, Cowan ST. Aerococcus, a new bacterial genus. J Gen Microbiol 1953;8:475-80.
3. Aguirre M, Collins MD. Phylogenetic analysis of some Aerococcus-like organisms from urinary tract infections: description of *Aerococcus urinae* sp. nov. J Gen Microbiol 1992;138:401-5.
4. Lawson PA, Falsen E, Truberg-Jensen K, Collins MD. *Aerococcus sanguicola* sp. nov., isolated from a human clinical source. Int J Syst Evol Microbiol 2001;51:475-9.
5. Facklam R, Lovgren M, Shewmaker PL, Tyrrell G. Phenotypic description and antimicrobial susceptibilities of *Aerococcus sanguinicola* isolates from human clinical samples. J Clin Microbiol 2003;41:2587-92.
6. Cattoir V, Kobal A, Legrand P. *Aerococcus urinae* and *Aerococcus sanguinicola*, two frequently misidentified uropathogens. Scand J Infect Dis 2010;42:775-80.

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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Conflict-of-interest issues regarding the authorship or article: None declared

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2. Cattoir V, Kobal A, Legrand P. *Aerococcus urinae* and *Aerococcus sanguinicola*, two frequently misidentified uropathogens. Scand J Infect Dis 2010;42:775-80.