Rasmussen, Magnus
Aerococci: hard to find and classify
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Dear Editor,

I read with interest the case report entitled “Aerococcus viridans urinary tract infection in a pediatric patient with secondary pseudohypoaldosteronism” by Leite and coworkers in Revista Argentina de Microbiología, volume 42, number 4. This report is important since it shows that aerococci can also cause disease in pediatric patients. Previous reports indicate that aerococci mostly infect elderly people (3, 7), causing invasive disease mainly in older males (6). Since aerococci are often mistaken for streptococci, enterococci or staphylococci in clinical practice, an increased awareness of aerococci is needed and thus, the report by Leite et al. is indeed relevant.

A. viridans was described in 1953 (8) and additional aerococcal species, including Aerococcus urinae (1) and Aerococcus sanguinicola (5), have now been defined. A. viridans and A. sanguinicola have similar biochemical properties (4) but A. sanguinicola seems to be more commonly isolated from infected patients than A. viridans (2, Senneby et al. in preparation). Importantly, the GPL-Vitek2 system used by Leite et al. fails to recognize A. sanguinicola and misclassifies this species as A. viridans (2). Thus, it is possible that the organism that had caused the urinary tract infection described by Leite et al. was not A. viridans but A. sanguinicola. This potential misidentification may have occurred in several published 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 which aerococcal species had caused the infection in this interesting case.


Sincerely yours
Magnus Rasmussen, M.D. Ph.D.
Division for Infection Medicine, Lund University; Sweden

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Reply to Dr. Rasmussen

Dear Editor,

We were pleased with the compliments made by Rasmussen in his article entitled “Aerococci: hard to find and classify” with reference to our work, “Aerococcus viridans urinary tract infection in a pediatric patient with secondary pseudohypoaldosteronism”, which was published in Revista Argentina de Microbiologia, volume 42, number 4. However, we would like to clarify some aspects.

The genus Aerococcus was first described in 1953 by Williams et al. to accommodate some gram-positive, microaerophilic, catalase-negative organisms that were visibly distinguishable from streptococci (6). At first, Aerococcus viridans was the only species known, but in recent years, four additional members have been described: Aerococcus urinaehominis[1], Aerococcus christensenii[2], Aerococcus sanguinicola[3] and Aerococcus urinaeohominis[4].

Even though there are clear similarities between their morphological and biochemical characteristics, there are some reactions in each of these species that allow their own identification without having to resort to gene amplification techniques and PCR identification [5]. Particularly, in differentiating Aerococcus sanguinicola from other