A total of 166 articles were obtained for the term “Aerococcus urinae” and 294 for “Aerococcus NOT Aerococcus urinae” (both with filter “humans”) (figure 1). Of them, 15 articles (16 cases) were selected and analysed:

- 8 AU MSK-I cases (our case is the 9th involving a MSK-I):
  - 6 cases of spondylodiscitis (66%), 1 hip abscess, 1 septic arthritis in a prosthetic hip and our case with septic olioarthritis.
  - 66% were male and 77% were 60 years or older.
  - 77% presented previous urinary tract disease, 55% previous urinary tract invasive procedures and 44% prosthetic disease.
  - AU was isolated in 4 of 6 cases that reported blood cultures and 2 of 4 cases with reported echocardiography presented infectious endocarditis.
  - AU was not isolated in any of the 5 cases that reported urine cultures.
  - 100% of cases were diagnosed after 2002 and 78% after 2010; 56% of them were diagnosed by 16s rDNA PCR or MALDI-TOF MS while a 33% did not provide enough information on the identification method used.
  - 4 cases of AU with bad odorous urine (symptom present in our case): all were healthy paediatric boys that presented AU in urinary cultures without other associated symptoms; 100% were diagnosed after 2010 and 75% of them by 16s rDNA PCR or MALDI-TOF MS.
  - 4 cases of Aerococcus viridans MSK-I: 2 spondylodiscitis, 1 knee arthritis and 1 case of hip septic arthritis; none was diagnosed via the methods previously described.
  - The analysed cases and previous reviews that report other AU invasive infections describes good response to beta-lactams and a synergistic effect with aminoglycosides. Our case was treated with intravenous Ampicillin (4 weeks) followed by Ciprofloxacin (7 weeks), due to a better bone penetration than oral beta-lactams.

Conclusions: – Similarly as in other invasive infections, AU MSK-I are more frequent in older males with previous urinary tract disease.

- The recent increased identification of AU MSK-I may well correlate with an increasing use of MALDI-TOF MS in clinical laboratories.3
- Despite its limitations, this systematic review summarises the only data available to date on aerococcus MSK-I and also suggest the likelihood of more frequent diagnosis in the near future.

REFERENCE:

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