Reviewer's report

Title: Osteomyelitis pubis caused by Kingella kingae in an adult patient: Report of the first case

Version: 1 Date: 4 August 2012

Reviewer: Dimitri Ceroni

Reviewer's report:

The authors have described a case of osteomyelitis pubis due to Kingella kingae in an adult patient. It is the first time that such condition is reported in adult & in children. The case report is interesting and well written.

I have several very minor quibbles, and I suggest also a few minor revisions.

Revisions

Discretionary revisions

Background: -It will be important for the non-orthopedists readers to have any additive information about pubic osteitis. Pubic osteitis has been known as a noninfectious inflammation of the pubis symphysis, causing varying degrees of lower abdominal and pelvic pain. Osteitis pubis was first described in patients who had undergone suprapubic surgery, and it remains a well-known complication of invasive procedures about the pelvis. Currently, it occurs above all as an inflammatory process in athletes.

-It is important to underline that K. kingae has become the major bacterial cause of OAI in children aged between 6 and 48 months.

Case presentation: -Write cholecalciferol

-Case presentation: The case presentation is a little bit too long with unnecessary descriptions. It should be possible to shorten it.

-Was the patient pyretic or not?

-Were blood cultures inoculated in Bactec vials, or did you use PCR assay?

-Why do you start with an oral antibiotic treatment, and what are the indications for a 3-month treatment?

-“suggesting synovitis of the pubic symphysis” Symphyse is a fibrocartilage disk that mimics intervertebral disk. To my opinion, you can not speak about synovitis of the pubic symphysis!

Discussion: -Treatment of osteomyelitis pubis is mainly based on surgery … for pyogenic germs. It is important to precise it.

-You have to explain your choice to treat the patient for 3 months, although you had the microorganism and you had the organism’s antibiotic susceptibility profile.
Minor essential revision:

Reading your paper, one may have the feeling that inoculation of sterile clinical samples in BACTEC vials is the currently gold standard for researching this fastidious organism. In studies conducted in Israel, and France in which blood-culture vials were consistently used for culturing synovial fluid aspirates, K. kingae was isolated in only half of the young children with culture-proven septic arthritis, which indicates that this method should be routinely used to improve the bacteriologic diagnosis, even if it is not completely efficient.

Studies published over the previous decade have shown that PCR enhances detection of K. kingae in bone and joint samples compared with routine cultures and blood-culture vials. These studies clearly showed that recovery of K. kingae by culture remains unsatisfactory, even when samples are inoculated into blood-culture vials. PCR-based assays substantially improve detection of the organism, which shows that K. kingae is the leading etiology of septic arthritis and osteomyelitis in children aged 6 to 48 months and is responsible for a large fraction of culture-negative infections in this age group. Therefore, three bacteriological investigations should be ideally performed when a K. kingae invasive infection is suspected. Firstly, the presence of K. kingae should be proven by a real-time PCR assay. Secondly, one should keep materials and perform a broad-range 16S rRNA gene PCR, when the precedent test is negative in order to exclude infections due to other fastidious microorganisms. Finally, clinical specimens should be inoculated into aerobic blood-culture vials for studying the organism’s antibiotic susceptibility profile.

I think thus that you have to explain that molecular diagnosis of K. kingae infections by novel nucleic acid amplification techniques is the currently best way for identification of K. kingae in invasive infections.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.