Reviewer's report

Title: Secondary purulent infections of the elbow joint: a retrospective, single-center study.

Version: 0 Date: 14 Nov 2019

Reviewer: Neel B Shah

Reviewer's report:

This is a nice retrospective single center study done in Germany that attempts to describe the etiology, comorbidities, bacterial spectrum and treatment of infections occurring in non-immunosuppressed patients who developed septic arthritis of the elbow between the years of 2006-2015.

A few general comments, followed by specific edits:

General:

Would you be able to comment on why you feel so many surgeries were required with these patients who developed septic arthritis of the elbow (mean was around 5, but some had up to 25 surgeries)

For your culture negative joint infections, how long were cultures held before being confirmed negative? I was surprised that none of the patients developed a C.acnes elbow joint infection, which is a more common infectious organism associated with upper extremity joints--however this organism does not grow quickly, and often requires up to 10 days of holding cultures for growth. Also, were additional stains/cx for fungus and AFB done with your culture negative isolates?

I may have missed this, but it would be worth seeing what the average joint aspirate cell count and differential numbers were with your cohort of patients, to see if there truly is variability or if some pattern was noted.

Make sure all infectious organism names are italicized.

Minor points:

Line 39- Place 'seven patients were female, 23 were male' in Results section--this statement should not be in the methods section

Line 48- Please add a comma after the word 'courses'

Line 49- Add the word 'and' after the word' treatment', and change the word 'as' to 'was'
Line 62- Add the word "The' before 'Most important...' 

Line 66- Change 'could be' to 'has been' 

Line 74- Eliminate the word' especially' 

Line 75- Remove comma, and change the word 'part' to 'proportion' 

Line 78-Change 'out' to 'our' 

Line 82- Phrase 'without turbid fluid'--do you mean patients who did not have purulence of the joint were excluded, or simply had no turbidity of their joint fluid? I imagine you meant patients with no active purulence of the joint were excluded, but wasn't sure--would be precise with what word is used. 

Line 111- Clarify Cefazolin (3 x 2g)--does this mean 2g three times a day? Every 8 hours? 3 doses? 

Line 117- Change the word 'destructed' to either 'damaged' or 'destroyed' 

Line 118- Change the word 'infect' to infected joint 

Line 120- Remove the word 'an' 

Line 131- Change 'made an' to 'resulted in' 

Line 168- Change sentence to "...a tennis elbow or chronic bursitis, for example." 

Line 169- Change 'of' to 'by' 

Line 171- Remove the word 'particularly' 

Line 181-- Change gram to Gram 

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors. 

Yes 

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors. 

Unable to assess 

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal