Reviewer's report

Title: Osteitis in dens axis caused by Treponema pallidum

Version: 2 Date: 19 November 2012

Reviewer: Michael Samarkos

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GENERAL COMMENTS
This is a report of an unusual presentation of syphilis. The diagnosis has been firmly established, using advanced molecular techniques.

Overall this is a scientifically sound report, which is important for any Infectious Diseases specialist. However there are some problems with the manuscript itself, which should be addressed.

Major Compulsory Revisions
1. Background section: most of this section deals with very general aspects of syphilis. As this is a specialist infectious diseases journal, most readers should already know all this information. I suggest that this paragraph be removed and replaced by an introduction to the skeletal manifestations of syphilis.

2. Case presentation: In my opinion, the second paragraph (Four weeks prior ...) does not seem to be relevant to the case, and should probably be left out. The authors do not comment about any association of the periorbital infection and the sore throat to the subsequent syphilitic osteitis.

3. Conclusion section: The opening sentence (“Osteitis is often caused by Staphylococcus aureus”) seems to be out of context, as there is no discussion on the etiology of osteitis. Furthermore the cited reference (No 9) does not mention once the term “osteitis”, as it is a general review on osteomyelitis.

Minor Essential Revisions
4. There is a typing error in the CRP value (109 109 mg/dl). This should be corrected.

5. Conclusion section. The authors should comment on the scintigraphic finding of bilateral tibial activity. Since tibiae are frequent sites of syphilitic bone involvement, this finding probably represents periostitis or osteitis of the tibiae and explains the leg pain the patient had.

6. References:
In references 3, 12, 13, 15, 16 and 17 standard abbreviations should be used instead of full journal names.

In reference 12 the name of the journal should be corrected to “AIDS Patient Care STDS”

In Reference 17 the year etc should be corrected. The correct is 2009;14: pii
References 5 and 6 are (as far as I can tell) Danish epidemiological bulletins – I am not sure, however, how these should be cited.

7. Language: there are some minor language use problems. Eg the authors use throughout the manuscript the term “columnar” instead of the commonly used “vertebral”.

In Conclusions section, par 4, line 3. “Only one case…reported”. I think it should be “Only one case of syphilitic osteitis where the diagnosis was obtained by PCR technique has been formerly reported.”

In Conclusions section, par 5, line 6. “safe sex praxis” instead of “safe sex practice(s)”.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

'I declare that I have no competing interests'