Author’s response to reviews

Title: Flare or foe? - Mycobacterium marinum infection mimicking rheumatoid arthritis tenosynovitis: case report and literature review

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Response to reviewers

Dear Dr. Fitzpatrick,

Thank you for considering our revised manuscript entitled “Flare or foe? - Mycobacterium marinum infection mimicking rheumatoid arthritis tenosynovitis: case report and literature review” for publication in BMC Rheumatology. Please find below our responses to the comments. Since we had already responded to the reviewer’s comments during the first revision, we defer you to the first response letter but include the comments below.

Editor’s comments:
Thank you for addressing the points raised by the reviewer. Figure 4 can be kept in as per the wishes of the authors, but if so, resolution needs to be improved.

R: we have re-designed figure 4 in a higher resolution (600 dpi in TIFF format).

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Reviewer’s comments (from first round of the review): The respective changes are highlighted.

Please could the authors address the points raised by the Reviewer and additionally:
-Include in the last section of the Background a note on the review of literature as part of this manuscript.

R: it was mentioned that we also performed a literature review on the topic (page 4, bottom).

-Elaborate in the discussion about the mode of spread of infection in MM.

R: We added details about the mode of spread and elaborate more on this in the discussion section: satellite lesions are likely due to lymphatic spread and the pattern has been termed “sporotrichoid” since it resembles an infection with Sporothrix schenckii. We also list a few other agents that may cause
similar lesions. Changes can be found on page 6, second paragraph (“The appearance of satellite lesions…”).

The case itself gives key clinical messages incl. the importance of taking a detailed history - cleaning a fish tank in this case was highly relevant- and the need to carefully address the lack of response to DMARD therapy. I agree with the Reviewers' comments on the points raised, especially for the clinical image. The latter could be improved.

R: We changed Figure 1 as suggested.

Reviewer: 1
This is a nice case report, well described and discussed
I think the clinical image is the most useful aspect fore the reader, and as such would suggest that Figure 1A be improved if possible with better magnification of the region of the 3rd MCP and 3rd and 4th fingers, to clearly show the papules/nodules within the purple/erythematous rash.

R: we agree with this point and changed Figure 1 to give a more detailed view of the forefingers (1A). In addition, a greater magnification is now used to display the satellite lesions in Figure 1B.

Some comment regarding the likely site of inoculation is missing, presumably the nail folds of 3rd or 4th fingers ?

R: we agree that the nailfolds are the most likely entry site and commented on it in the manuscript (section “Case description”, page 6 second sentence “In light of this information…”).

Some comment of the diagnostic information or relevance to the diagnosis of the forearm lesion would also be helpful to the reader - is this haematogenous spread, and how common is it to have satellite lesions like this ?

R: The forearm satellite lesions is critical to this case, as there are few agents described with this so-called “spirotrichoid” spread. We now include some agents with this type of spread and added two additional references for this statement (21, 22). Changes can be found on page 6, second paragraph (“The appearance of satellite lesions…”).

I do not think Figure 4 is necessary

R: We agree that information on the published cases is also given in Table 1. Nevertheless, we think that Figure 4 gives the reader a visual overview on published cases and the type of treatment associated with cases of Mycobacterium marinum infections in RA and, therefore, provides additional information. We would prefer to keep Figure 4 for this reason unless the Reviewer strongly feels that the figure should be discarded.

We hope we have addressed the above-mentioned points raised by the reviewers sufficiently and that our manuscript is now acceptable for publication.

Best regards,
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