Reviewer's report

Title: Effects of tofacitinib on the clinical features of periodontitis in patients with rheumatoid arthritis: two case reports

Version: 1 Date: 16 Jan 2019

Reviewer: Susanna Proudman

Reviewer's report:

The authors have addressed each of my comments but have not acknowledged my concerns about their claim that tofacitinib improved the clinical features of RA when in fact neither case had more than low disease activity at baseline and there were not in fact consistent improvements in DAS28, SJC, TJC. Comments elsewhere in the manuscript claiming improvement in clinical disease activity should be rephrased to acknowledge the low disease activity at baseline and inconsistent findings in measures of disease activity eg in the abstract which states: "Both cases showed improvement not only in the disease activity and symptoms of RA".

Likewise, the Discussion implies that tofacitinib reduced RF and CCP, serum TNF and IL-6 in both cases. In fact only IL-6 was reduced in both cases as I don't think the reduction in TNF in case 2 can be construed as a significant reduction. Reductions in RF and CCP did not occur in both cases either.

I have made an assumption that the changes in some of the periodontal measures at least are clinically significant but this is not explicitly stated in the manuscript. Can the authors state confirm whether the improvements in periodontal measures are clinically significant and specifically state this in the manuscript?

Hence the manuscript should present this as a study of the effects of tofacitinib on the clinical features of periodontal disease with a suggestion of improvement in antibodies (RF in one case and CCP in the other case), serum IL-6, TNF in one case and MMP-3 in the other case (in patients receiving tofacitinib for RA with inconsistent clinical response in RA likely due to the low disease activity to start with). his should be reflected in the manuscript wherever it is stated there were improvements in these markers. Likewise, if improvements in PD measurements were clinically significant, this can be stated. If not, the conclusion should be toned down to: tofacitinib did not exacerbate PD disease despite possible immunosuppressive effects.

Importantly, were the periodontal assessments blinded to the use of a new DMARD (tofacitinib) between baseline and later assessments? If not, the major conclusion of the manuscript that tofacitinib improved periodontal inflammation is undermined and cannot be drawn.
It would also have been useful to demonstrate the changes in the manuscript in response to my comments, using tracked changes.

**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.

No

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

No

**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.

Not relevant to this manuscript

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

Acceptable
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