Reviewer’s report

Title: Epidemiology of psoriasis in hard-to-treat body locations: data from the Danish Skin Cohort

Version: 3 Date: 20 Feb 2020

Reviewer: Ailish Hannigan

Reviewer's report:

I am conscious that this paper has been revised three times already so I am not requesting additional revisions lightly - however, the response of the authors to my comments has been disappointing and superficial.

Previous comments from reviewers all point to the same issue (in different ways). Multiple outcomes have been compared across groups in this study with many statistical tests carried out. Most of the differences are statistically significant, partly because of the relatively large size of the groups. Which differences are important? P-values do not measure the importance of the result - they are only part of the evidence.


A strength of the study is in the use of validated scales, many of which have minimum clinically important differences either in this population or related ones. I am recommending that the authors use this to support their statements in the abstract about 'noticeably poorer' and 'particularly high'. These are qualitative statements that need to be supported by more than a p-value < 0.05.

The authors had made a statement about the most noticeable difference being in the level of pain and discomfort which were 'strikingly higher' - when I challenged this (given that the difference in pain was 2.5 vs 1.2), it was changed to 'somewhat higher' though still 'the most noticeable difference'. This is an example of the superficial response of the authors - is a difference that is 'somewhat higher' still the 'most noticeable difference'? That whole paragraph on patient reported outcomes needs to be reviewed and the important differences highlighted to the reader rather than relying solely on p-values and unsupported, qualitative phrases. For example (and this is just an example - not the only outcome to be addressed), we are told that those with psoriasis in hard to treat areas had significantly poorer outcomes for itch. Later we are told that the MCID for itch is 2-3 but there is no attempt to relate the findings of the study to this. There isn't any point in adding the MCID to the Discussion if the authors haven't actually used it in the Results. In fact the differences in this study were smaller than this MCID (mean of 3.2 for at least one difficult to treat area compared to 1.6 for those without a difficult to treat area) but we see the greatest burden for those with genital psoriasis (mean of 4.2 vs 1.6).
The statistical analysis has been completed. Now the results (with all the evidence, not just p-values) needs to be reflected on, discussed, compared to what is known in the literature and highlight to the readers what exactly is the burden of having psoriasis in hard to treat areas.

Minor comments

The statement slightly but significantly younger for age doesn't make sense.

It would be helpful to know how many patients were in each of the categories mild, moderate and severe psoriasis. If overall, 64.8% of patients had involvement of at least one hard to treat area, how can 80.4% of people with mild psoriasis have involvement of at least one hard to treat area and 89% of those with severe psoriasis - so the rate for moderate must be much lower if the overall rate is only 64.8%?

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.

Yes

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.

I am able to assess the statistics

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