Reviewer’s report

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

Version: 0 Date: 16 Sep 2019

Reviewer: Maximilian Schielein

Reviewer's report:

I read the Manuscript by Prof. Egeberg and colleagues with great interest. In their manuscript, the authors analyze the prevalence of psoriasis in defined "hard-to-treat areas". They conclude, that psoriasis often occurs in hard to treat areas and patients suffering from hard-to-treat location seem to have poorer patient reported outcomes measures

In general, the topic is of great interest and the general idea of the study is excellent. However, major adjustments have to be made prior to publication:

Abstract

1. Please reconsider the usage of "may" within the background of your abstract.

Introduction:

1. Mentioning the effectiveness in modern psoriasis treatment and perceived barriers in this regard would be beneficial. Therefore, "doi: 10.1016/j.jaad.2017.08.051" and "doi: 10.1111/jdv.14811" might be useful references.

2. Furthermore, authors may consider including "doi: 10.1080/09546634.2018.1453125" for the occurrence of genital psoriasis.

Material and methods:

1. Please state why the definition of a flare according for patients with eczema was used to defined a flare in psoriasis? If necessary, please update ref. 22.

2. Defined boarders of BSA and classification of Psoriasis are controversial. Either "3" is not included or "10" is included in two categories. Please consider adjusting.

3. Logistic regression models:
a. variables included in the adjusted model were selected a priori: by whom were they selected? Please also define all dependent and independent variables in methods section.

b. Please argue for or against the inclusion of variables in a statistical appropriate manner.

c. As patient number is high and the authors conducted many tests (90 tests only counting supplementary table 1) I would strongly (!) recommend to adjust for multiple testing!

4. As patients with at least one hard-to-treat area have worse BSA compared to those without at least one (4 vs. 1), it may appear useful to adjust for possible confounding (stratified analyzes or multiple logistic regression model) in this regard. This correlation might influence PROs reported in table 2 substantially.

Discussion

1. In the results you mention that individuals with higher disease severity show a higher prevalence for psoriasis in hard to treat areas. This is a logic consequence on increasing BSA.


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

No

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:

Acceptable

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