Reviewer’s report

**Title:** Ainhum, a rare mutilating dermatological disease in a female Cameroonian: a case report

**Version:** 0 **Date:** 14 Jun 2019

**Reviewer:** Antoine Petit

**Reviewer's report:**

There are several limitations to this work:

1. The fact that the patient was Cameroonian does not justify the publication by itself.
2. The article contains general information on the disease that comes from various sources with variable reliability. Ref 3, which is frequently quoted, might not be the most appropriate reference for a general review. For example, page 3, line 18, the sentence "ainhum predominantly affect Africans in tropical regions" could reflect the old false assumption that mechanical traumas due to barefoot walking play a role in ainhum. In fact, "idiopathic" ainhum occurs anywhere but always in people of SubSaharan African descent.
3. "Idiopathic" ainhum presents with a quite standardized, highly recognizable clinical picture of an annular stricture at the basis of the fifth toe, leading to severe ischemic pain and eventually spontaneous amputation: this is the exact opposite of a "variable clinical polymorphism" (p5 line 21). Although true "idiopathic" ainhum may also rarely involve other toes, it usually starts and predominates to the fifths; other causes of annular strictures at the basis of other toes and fingers generally refer to as "ainhumoid processes" or "ainhum-like" etc.
4. p4, line 24 Fig2: the quality of clinical photographs could be improved; nevertheless it seems that there is a skin ulceration?
5. differential diagnosis is mainly clinical: it doesn't need radiology or histopathology (p5 line 54).
6. p6 line 5, summary etc.: since there is no histological evidence of fibrosis, it would me more appropriate to replace "fibrotic" by a clinically descriptive term (hard, firm, constrictive etc.). Indeed, the stricture is mainly due to hyperkeratosis.
7. Ainhum affects patients of African descent. Morand and Lightburne (ref 2) have suggested that ainhum could be linked to hyperkeratosis. Browne has observed plantar hyperkeratosis associated to ainhum. (Additionally, Vohwwinkel syndrome is a form of hereditary palmar and plantar hyperkeratosis that leads to ainhumoid process). Therefore, you could consider that your patient illustrates the hypothesis of "idiopathic" ainhum as a peculiar manifestation of a variety of hereditary plantar keratoderma affecting patients of African descent. These ideas have been developed in two articles you could read and add as references: E. Bourrat et al., Br J Dermatol 2011;165:219-221 and C. Koudouko et al., Ann Dermatol Venereol 2015;142:170-175.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Unable to assess

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.

Unable to assess

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:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests related to this article

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal