Author’s response to reviews

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

Authors:
Diego Nitcheu Tchouakam (tchouakam2004@yahoo.co.uk)
Joel Noutakdie Tochie (joeltochie@gmail.com)
Marc Leroy Guifo (marcleroyguifo@gmail.com)
Simeon Pierre Choukem (schoukem@gmail.com)

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Author’s response to reviews:

June 20, 2019.
The Editor-in-chief,
BMC Dermatology

Dear Sir/Madam,

We are writing to submit our revised manuscript entitled, “Ainhum, a rare mutilating dermatological disease in a female Cameroonian: a case report” for consideration for publication in BMC Dermatology.

We have addressed all reviewers’ queries so as to account for their comments and suggestions.

We hope that you will find this revised version suitable for publication.

Sincerely,

On behalf of all co-authors
Joel Noutakdie Tochie, MD
Faculty of Medicine and Biomedical Sciences,
University of Yaoundé I, Cameroon.
1. Editor Comments: As the reviewer points out: the fact that the patient was Cameroonian does not justify the publication by itself. Case reports submitted to BMC Dermatology should make a contribution to medical knowledge and must have educational value or highlight the need for a change in clinical practice or diagnostic/prognostic approaches. Could you please describe how the case report is rare or unusual as well as its educational and/or scientific merits other than it is the first report from Cameroon

Authors' response: Page 2: line 17 to 21: this has been revised accordingly

2. Jonathan Dale Ho (Reviewer 1) comments: The paper needs a thorough proofing for grammar, sentence structure, and spelling errors.

Authors' response: the manuscript has been proofread by an English native speaker for correction of grammatical errors

3. Reviewer's comment: Abstract, conclusion: "...presented a case of ainhum, apparently the first in the Cameroonian literature". This statement is not needed multiple times in the paper. Furthermore, while it may be the first reported case in Cameroon, it is likely not the first case seen.

Authors' response: Page 2: line 7 to 8 and 17 to 21: this has been revised accordingly

4. Reviewer's comment: Abstract, conclusion: "...serious complications of ainhium sucg". Please correct the spelling of 'such'

Authors' response: Page 2: line 18: this has been revised accordingly

5. Reviewer's comment: Introduction: Please fix the direction of the quotation marks in the first sentence.

Authors' response: Page 3: line 2: this has been revised accordingly

6. Reviewer's comment: Background: "The word "Ainhum" derived from the Nago word (Brazil) meaning 'fissure' or the Yoruba word (Nigeria) meaning 'to saw or cut'[1], is a relatively rare idiopathic skin disease characterized by insidious development of a fibrotic constricting band or ring on any phalange (finger or toe) leading to spontaneous auto-amputation in severe cases with consequent permanent deformities, physical handicaps and psychological trauma [2-4]." This should be 2 sentences. Please adjust.

Authors' response: Page 3: line 3 to 7: the sentence has been split into two

7. Reviewer's comment: Case presentation: "Also, she was a non-alcoholic and nonsmoker." Is her alcohol use relevant? If so, perhaps the phrase "she did not use alcohol" may read better.

Authors' response: Page 3: line 21: we deleted non-alcoholic

8. Reviewer's comment: "On examination of the right foot, the fifth toe was separated from the rest of the foot by a circular band at its base. The band was like soft tissue constriction over the proximal inter-
phalangeal joint initially”. At the point of Figure 1, there is no separation of the toe. Perhaps just describe the presence of a constriction band. The term "like soft tissue" is ambiguous. Please clarify.

Authors' response: Page 4: line 5: this has been revised accordingly

9. Reviewer's comment: Case presentation: "stage 4 ainhum with almost auto-amputation". The authors use this phrase on occasion in the manuscript. Perhaps, "impending" or "near amputation" would be better.

Authors' response: Page 4: line 10: this has been revised accordingly

10. Reviewer's comment: Discussion: "isolated big toe involvements". Please use the term "great toe" or 1st toe

Authors' response: Page 5: line 14: this has been revised accordingly

11. Reviewer's comment: Discussion: "Also, histology examination was not performed in our case, but previous reports have shown collagen thickening of the stratum corneum near the fibrous band, hyperkeratosis or acanthosis of the epidermis and the presence of Lymphocytes and fibroblasts in the dermis in response to tissue damage and the chronic inflammation". Please clarify the histopathologic findings. Collagen thickening cannot occur in the stratum corneum as collagen is a dermal structure and the stratum corneum is an epidermal layer. Lymphocytes should not be capitalized.

Authors' response: Page 7: line 14 and 15: this has been revised accordingly

12. Reviewer's comment: The photographs appear somewhat blurred. Higher quality images should be provided if available.

Authors' response: We are sorry, this is the best quality image our camera could yield

13. Reviewer's comment: Petit (Reviewer 2): There are several limitations to this work: The fact that the patient was Cameroonian does not justify the publication by itself.

Authors' response: We agree with you, as stated in the conclusion of the abstract, we report this case to "draw clinicians’ attention, especially wound care specialists to this rare but potentially handicapping disease for timely diagnosis and management."

14. Reviewer's comment: 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.

Authors' response: Page 3: line 8 to 9: this has been revised accordingly

15. Reviewer's comment: "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 line21). 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.

Authors’ response: We agree with you. Many thanks for your comment

16. Reviewer's comment: p4, line 24 Fig2: the quality of clinical photographs could be improved; nevertheless it seems that there is a skin ulceration?
Authors' response: We are sorry, this is the best quality image our camera could yield. There is no skin ulceration apart around the constricting band

17. Reviewer's comment: differential diagnosis is mainly clinical: it doesn't need radiology or histopathology (p5 line 54).
Authors' response: Page 5: line 22: this has been revised accordingly

18. Reviewer's comment: 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.
Authors' response: this has been revised accordingly throughout the manuscript

19. Reviewer's comment: 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, Vohwinkel 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. Koudoukpo et al., Ann Dermatol Venereol 2015;142:170-175.
Authors' response: Page 6: line 13 and 18: this has been revised accordingly

20. Reviewer's comment: Karalikkattil T. Ashique, MBBS; DDVL; PG Dlp Med Cosmetology (Reviewer 3): Line 9. Please add 'usually on the fifth toe" Both the images are not of good quality
Authors' response: Page 2: line 4: this has been revised accordingly. We are sorry, this is the best quality image our camera could yield