Author’s response to reviews

Title: Gluteal hidradenitis suppurativa presenting pemphigus-like findings: case report

Authors:

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Author’s response to reviews:

Reply to the Editor Comments:

Dear authors

As my comments:

- I think that only based on only one case, you couldn’t conclude that there had been a relationship between pemphigus and the follicular occlusion triad.

→ Thank you for your critical comment. As you pointed out, we couldn’t conclude definite relationship between pemphigus and the follicular occlusion triad from only one case. We corrected the sentence with this taken into consideration (Page5 Line78-80). However, this is a case report which is usually written on one individual patient. Our patient is such an unusual case comorbid with pemphigus and the follicular occlusion.

- How did you diagnose the lesions as acne conglobata? I can list some pints in your case against this diagnosis:

1- The age of onset of lesions in oldness
2- Unilaterality of lesion
3- Absence of follicle-based lesions in pathology view in your image
4- The site of lesions (thigh is not a common site for involvement)
5- The extent of lesions
As you pointed out, the presentation of this case is atypical as acne conglobata in some respects and as reviewer 2 mentioned, the diagnosis is compatible with hidradenitis suppurativa rather than acne conglobata. We agree with these comments. We amended the diagnosis to hidradenitis suppurativa instead of acne conglobata in the title and text. The presence of the follicle-based lesion is shown in the photograph shown as Fig. 1e.

What do you mean by “certification by direct immunofluorescence was not available”?

We apologize the confusing sentence. The whole lesion was processed for formalin-fixation and could not evaluate it by standard direct immunofluorescence assay (Page4 Line55-56).

How did you rule out the diagnosis of infected pemphigus vegetans? I think pemphigus vegetans superimposed by infection resulting in sinus formation and discharge could be a better diagnosis.

As you pointed out, the differential diagnosis is infected pemphigus vegetans. Due to the lack of response to oral antibiotics we preferred the diagnosis of follicular occlusion triad (Page4 Line70-71).

Multiple sinus tracts, abscesses, and chronic inflammation while not follicle-based don’t confirm the diagnosis of acne conglobata.

Thank you for your comment. As you mentioned, the presence of sinus tract, abscesses, and chronic inflammation itself is insufficient for the diagnosis of follicular occlusion triad. We added the photograph in which the presence of follicle-based inflammation as Fig. 1e.

(Pemphigus vegetans is a rare variant of pemphigus vulgaris. The differential diagnosis includes pemphigus vegetans….): pemphigus vegetans is differential diagnosis of pemphigus vegetans? (???)

We apologize our carelessness. As described, we diagnosed this case as hidradenitis suppurativa accompanied by acantholysis, not pemphigus vegetans. We amended the sentence so that it would be easy to understand (Page4 Line67-68).
- I think low titer of desmoglein antibodies, and the negative indirect immunofluorescence finding couldn’t rule out the diagnosis of pemphigus vegetans, because the extent of the lesions in your case had been very limited.

→ Thank you very much for your critical comment. As you pointed out, the extent of the lesion was very limited and the low titer of desmoglein antibodies and the negative indirect immunofluorescence finding do not necessarily rule out pemphigus vegetans. We amended the sentence and described the possibility of concomitance of pemphigus and pyoderma as reviewer2 mentioned (Page5 Line73-75).

- Based on this sentence “A previous report indicated the association between recurrent staphylococcal infection and the development of an anti-desmoglein 3 antibody response”, how could you ruled out the previous staphylococcal infection (which is not due to acne conglobata) resulting in the development of an anti-desmoglein 3 antibody response and pemphigus formation?

→ According to your comment, we added the following sentence.

Staphylococcus aureus was cultured from the bacterial culture of the lesion before oral antibiotics treatment (Page3 Line53-54).

- How did you decide to remove the lesions with surgery without doing any medical trail?

→ We understand your inquiry. We thought the main lesion was hidradenitis supprativa with secondary induction of local pemphigus. As oral antibiotics were ineffective, surgical removal was done (Page4 Line53-54).

- Generally, I think your presentation can’t give a definite association between acne conglobata and pemphigus with precise documents.

→ We understand your inquiry. We couldn’t decipher definite relationship between the follicular occlusion triad and pemphigus-like condition from only one case. However, we think that this case may highlight a potential induction of pemphigus-like response by chronic inflammation such as hidradenitis supprativa.

Thank you so much again for your comments. We believe that the revised manuscript is now much improved. We hope the revised article is now suitable for publication.
Reply to the Reviewer 1:

The authors reported a 68-year-old male with gluteal acne conglobata with coincidental pemphigus findings. The case is very interesting. Though there was no result of DIF examination, the pathological findings and ELISA results fully supported the claimed diagnosis. The quality of the English is suboptimal, and need further revision.

Minor suggestions:

1. We report a case of 68-year-old male with a diagnosis of gluteal acne conglobate that showed pemphigus findings;” the acantholysis and the desmglein autoantibodies. □ ”, including”

2. Gluteal acne conglobata with pemphigus findings "have" not been □ has

3. The detailed information of the ELISA kit should be addressed.

→ Thank you very much for your helpful comments.

According to your comments, we amended the sentence (Page2 Line26-27, Line 30-31) and added the information of the ELISA kit (Page4 Line58).

Thank you so much again for your comments. We believe that the revised manuscript is now much improved. We hope the revised article is now suitable for publication.

Reply to the Reviewer 2:

The authors present an interesting case of two different clinical entities, trying to establish a relationship between them.

1. The clinical image and description of the case are compatible with a suppurative hidrosadenitis rather than with a conglobata acne. The lack of response to antibiotics and the improvement with surgical management support the above.

→ Thank you very much for your helpful comment. As you pointed out, the diagnosis of this case is suppurative hidrosadenitis (hidradenitis suppurativa). “acne conglobate” was substituted for “hidradenitis suppurativa” in the tile and text.

2. The negative direct immunofluorescence, as well as the presence of acanthosis and polymorphonuclear predominance supports a diagnosis of Piodermitis Vegetans, although
acantholysis could not rule out a pemphigus vegetans, antibody titers are too low to be considered important.

→ Thank you very much for your comment. As with pyodermatitis-pyostomatitis, the absence of mucosal lesions and abdominal symptoms ruled out the diagnosis of pyoderma vegetans. As you pointed out, we could not rule out pemphigus vegetans exactly. We amended the sentences in the manuscript (Page4-5 Line67-75).

3. It was not determined that there was deficiency in cellular immunity, since it was not determined CD4, CD8 or intradermal-reaction results.

→ Decifient in cellular immunity might be an underlying condition associated with pyoderma vegetans. We did not evaluate CD4, CD8 or intradermal-reaction for sure in this case but the patient has no remarkable past medical history. We added the comments in the text (Page3 Line51-52).

4. I consider that the case, rather than correlation, has concomitance of two totally different entities, although the association can be reported.

→ As you pointed out, the exact association of pyoderma and pemphigus is not clear. We added comments in the text (Page5 Line78-80).

Thank you so much again for your comments. We believe that the revised manuscript is now much improved. We hope the revised article is now suitable for publication.

Reply to the Reviewer 3:

Dear authors, this paper reported about a case of a 68-year-old male with a diagnosis of gluteal acne conglobate that showed the acantholysis and the desmglein autoantibodies; whose presence is rare in acne conglobate.

The paper provides insight in an interesting case and needs marginal changes for publication - in my opinion.

→ Thank you very much for your encouraging comment.
Abstract: The "take-away" lesson/s from your case (conclusion) is weakly written. Try to give it more significance.

→ Thank you for your helpful suggestion. We amended the sentence to emphasize the significance of this case (Page2 Line30-33).

Background: Are there any current studies available which are relevant in respect to your report? Maybe there is something similar or contrary reported?

→ As mentioned in abstract, hidradenitis suppurativa with pemphigus-like findings has not been reported before. However, as comorbidities of hidradenitis suppurativa, autoimmune disease is described, and we added this information with new reference (Page3 Line41-42).

Case presentation: How long had the patient received oral antibiotic treatment? "several months" - what does this mean?

→ We apologize our careless mistake. We amended the sentence so that it would be easy to understand (Page3 Line54).

Conclusion: Reference 2: with the clause "and this case suggests a relationship between pemphigus and the follicular occlusion triad" you again refer to your case, don't you? If I'm right, you should move reference [2] in front of the clause.

→ We again apologize our careless mistake. We moved reference [2] ([3] in revised manuscript) according to your indication (Page5 Line78).

Conclusion: Similar to your abstract; try to give your conclusion more significance by e.g. changing your style of writing.

→ Thank you very much for your helpful comment. We added the sentence to emphasize the importance of this case, similar to abstract (Page5 Line85-87).

Thank you so much again for your comments. We believe that the revised manuscript is now much improved. We hope the revised article is now suitable for publication.