

Peer Review File

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Reviewer A

This article presents a case report of a Saudi Arabian man who developed prurigo pigmentosa as a result of bariatric surgery. A skin biopsy was performed and a correct diagnosis was made. The author is also correct that prurigo pigmentosa is more common in young Asian women, and cases like this are rare and interesting.

Please consider the following.

What do you think is the cause of the development of prurigo pigmentosa in this case? As stated by the author, there is a strong association between ketosis and prurigo pigmentosa. An association with bariatric surgery has also been reported in recent years, which may also be related to diet. In this case, the ketogenic diet was negative and there was no evidence that the diet changed during the course of treatment. In general, improvement of the ketotic state of prurigo pigmentosa is considered essential for a cure, but did the patient's diet change or improve during the course of treatment? Does the author believe that drug therapy directly contributed to the cure of prurigo pigmentosa in this case? Some reports suggest that prurigo pigmentosa is associated with HLA-DR4. Most patients who undergo bariatric surgery do not develop prurigo pigmentosa. I would like to see a more detailed discussion of why prurigo pigmentosa developed in this case and whether it resolved spontaneously during the course of the disease.

Reply: Thank you for your kind feedback. We believe the cause of prurigo pigmentosa in our case could have been the inability to consume a balanced diet following his bariatric surgery. We are unaware of any genetic predisposition that he might have. We have added a sentence in red text to explain that (lines 97-99). We believe that the combination of a balanced diet and antibiotic therapy resulted in the resolution of the rash. We have added a statement in red text to answer that (lines 109-111). Regarding the HLA-DR4 association with PP, I would like to thank you for your valuable input. It is true that such an association exists. We have added a statement addressing that in red text (lines 99-101). We have explained the reason why it could have developed by replying to your comments in the article. We hope that it is clear and comprehensive. In our case, the rash resolved within 2 weeks after his initial visit. He had adhered to the antibiotic regimen (lines 69-71).

Reviewer B

Well-written and convincing case report.

Only 3 remarks:

Comment: the use of “aminoglycoside” antibiotics (instead of tetracyclines) is not known to me in this condition; is it correct? They are not easily absorbed from the gastrointestinal tract, is this then topically or IV? Please check and add.

Reply: Thank you for your valuable review. We have addressed below each point separately and we hope that everything is clear and comprehensive:

As you mentioned, tetracyclines (specifically minocycline) are the most used treatment for prurigo pigmentosa. We apologize for the confusion. The other commonly prescribed pharmacological treatment is dapson. We have deleted the statement including the aminoglycoside as it could be irrelevant in our case; especially that our patient underwent bariatric surgery. We have deleted statements that are shown in red but crossed out, and we have also added additional statements about the use of minocycline and dapson. Changes can be found in lines 103-106.

Comment: not all cases require antibiotics, some resolve by diet modification only (eg, as written in abstract)

Reply: It is true that not all cases require antibiotic therapy as stated, we have not stated that clearly in the article. We have added a statement about that in red text (lines 108-109).

Comment: I would add that, typically, the itch can be quite severe and therapyresistant to topical and systemic corticosteroids which can be an extra clue for the diagnosis, as discussed in Aerts O, Dendooven E, Siozopoulou V. Dieting Resulting in Prurigo Pigmentosa ("Keto Rash"). J Allergy Clin Immunol Pract. 2021 Nov;9(11):4149-4150.

Reply: Thank you for the valuable piece of information. We truly appreciate it as we have not been exposed to a lot of patients with prurigo pigmentosa. We have added a sentence in red text explaining how the severity of pruritus can be a clue for diagnosis (lines 101-103). We have also added the reference in red (reference 15).