Peer Review File

Article information: https://dx.doi.org/10.21037/acr-23-144

Reviewer A

The authors reported a case of MRH associated COVID19 infection. The case is well and exhaustive described. I have only one suggestion: please add dermoscopy features of MRH. Dermoscopy is an useful and non-invasive diagnostic tool that could be useful in diagnosis of MRH. Dermoscopic examination of MRH papules and nodules can show homogeneous pattern with various shades of yellow ("setting-sun" pattern) with brown reticular structures or central scar-like structures; orange-reddish papules; yellow surface papules with chrysalis structures, white structureless areas and linear teleangectasias. Moreover around nail folds can be found small papules with a characteristic coral-bead appearance. Read and quote: 1) Kaçar N, Tasli L, Argenziano G, Demirkan N. Reticulohistiocytosis: different dermatoscopic faces and a good response to methotrexate treatment. Clin Exp Dermatol. 2010;35(4):e120-2; 2) Dell'Antonia M, Atzori L, Pilloni L, Ferreli C. Multicentric reticulohistiocytosis revealing breast cancer: Report of a case with dermoscopic, radiological and therapeutic aspects. Australas J Dermatol. 2021 Aug 16. doi: 10.1111/ajd.13687; 3) Orlando G, Dan G, Pezzetta S, Linder D, Salmaso R. Coral-bead skin lesions associated with erosive arthritis: a quiz. Acta Derm Venereol. 2019;99(9):844-845.

Answer: Thank you for reviewing our manuscript. Unfortunately, we were unable to conduct a dermoscopic examination as the patient did not develop any new lesions following successful treatment.

Reviewer B

Why did you use metothrexate in the presence of arthralgias without arthritis?

Answer: Patient presented with hand swelling suggestive of tenosynovitis. Although the X-ray was unremarkable, it's important to note that patients with MRH are at a high risk of developing arthritis mutilans. As a result, a prompt initiation of DMARD therapy, such as Methotrexate, is crucial

Reviewer C

The authors describe a case of MRH occurring after COVID-19 infection. The article is well written, even though the description of the clinical association of MRH should be improved,

with special regard to the association of MRH to epithelial cancers (a third of patients) and of reticulohistiocytoses in general to myeloid neoplasms (https://onlinelibrary.wiley.com/doi/full/10.1111/ajd.13491).

Answer: Thank you for your feedback, but the current disease is specifically related to multicentric reticulohistiocytosis. We believe that mentioning reticulohistiocytosis would be beyond the scope of our case.

Moreover, the references are not very up-to-date, and more recent review works need to be cited (https://onlinelibrary.wiley.com/doi/full/10.1111/jdv.16214)
Below are a couple more comments on the text:

Answer: We added the reference that you recommended it.

pg 6 line 1: "The biopsy revealed diffuse dermal histiocytic infiltrates indicative of non-Langerhans cell 2 histiocytosis (Figure 3), consistent with a diagnosis of multicentric reticulohistiocytosis." Histopathologists may only render a diagnosis of reticulohistiocytosis. The multicentric form cannot be distinguished at the histopathological level from other clinical forms. Please correct accordingly.

Answer: We added the comment that the reviewer was recommended.

Pg 7 line 11 "In light of the work by Zou et al., it's worth noting" This sentence is not clear. Are you referring to COVID-19-infected patients? Specify.

Answer: Thank you for the feedback. This refers to the possible relationship between MRH and CTD. Apologies for any confusion; we have removed some words to make the sentences clearer.

The histological figure, and especially the hematoxylin-eosin is of poor quality. Please change it with a better picture of a 4x magnification and include a 40x magnification detail of the cell morphology.

Answer: Unfortunately, we were unable to obtain additional samples and capture new pictures.

Reviewer D

This is a well written article and I recommend to accept this with the following suggestions- Seems the patient had "Coral bead sign" on the nail fold of the right little finger. It will be

good to mention this clinical feature. Also the following current reference will be good for this article:
Sarkar S, Fung MA, Raychaudhuri SP. Planning phase "Coral bead sign" in Multicentric Reticulohistiocytosis. Int J Dermatol. 2020 Jun;59(6):e203-e204.

Answer: Thank you! We added the recommendation and the reference.

Reviewer E

Can you elaborate on the incidence of the case.

Answer: Thank you for your feedback. MRH is a very rare disease, and so far, there have been only 300 cases described in the literature. We have added the reference and the statement to the manuscript.

You mentioned that the diagnosis of MRH in your case pointed towards its complexity. Please elaborate on the kind of complexity, did the patient have any other symptoms/ clinical features.

Answer: The complexity is because of the rarity of the disease.

Can you please rephrase 'Negative malignancy screening added to MRH's enigmatic nature.' - explain or elaborate the association of MRH with different malignancies.

Answer: We added in the discussion the prevalence of association of cancer in MRH.

Please elaborate on the treatment of the condition.

Answer: Unfortunately, due to the rarity there is very poor literature sources of treatment.

Reviewer F

More histological and immunocytochemical details of the case should be provided in case presentation.
Figure 2 is not strictly necessary.
Figure 3B is not clear to me if it is immunohistochemistry for CD68a or H&E-stained sections. A good immunohistochemistry image of positive CD68 with indication of the clone and the chromogen would be sound as it is the clue for any differential diagnosis.

Answer: Thank you for your suggestion, but we are unable to obtain new imaging. We understand that Figure 2 may not be necessary, but considering the high risk of arthritis

mutilans, we believe it's relevant in her case, especially since there were no erosions observed on the X-ray.