#### Peer Review File

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

## **Reviewer Comments**

#### Reviewer A

Comment 1: Dermatomyositis (DM) is occasionally associated with malignancy, which is so-called cancer-associated myositis. The cancer screening in patients with dermatomyositis is an important clinical issue. the pooled sensitivity of anti-TIF1 $\gamma$  Abs for diagnosing cancer association in myositis patients was 78%, and the specificity was 89%.

I ask some questions to the author.

1. According to this paper, a positive anti-transcription intermediary factor 1 (anti-TIF-1) antibody was reported.

Why wasn't a CT scan, gastroscopy, or colon examination done before the patient developed dysphagia or weight loss?

Please explain why the esophageal cancer was a histological adenocarcinoma.

Reply 1: Dear reviewer,

We would like to thank you for taking time to review our article.

In fact, a comprehensive work-up was prescribed following the identification of anti-TIF1 $\gamma$  antibodies. Unfortunately, the patient refused invasive diagnostic tests, such as gastroscopy and colonoscopy, and missed some scheduled follow-up consultations.

Regarding the definition of adenocarcinoma, and after thorough discussions with our anatomic pathology department, we have decided to make an adjustment to our histologic portrayal This adjustment involves highlighting atypical glands that exhibit invasive characteristics, penetrating through the muscular layer. (see figure 2)

### Reviewer B

Comment 1: Dear authors, it has been quite interesting reading the case report presented. However, the case is too long adding very little to the current knowledge of the disease. My main comment is to shorten it globally. Highlighting only the most relevant data.

# Reply 1: Dear reviewer,

We appreciate your comment and agree that our case report might be cumbersome; therefore, we have made an effort to remove unnecessary information.

### **Reviewer C**

Comment 1: Dear authors,

the paper is interesting, and the English really good but the case should be better written

for me, the diagnosis of neoplasia was not made by the dermatologist.

it is well known that myositis with anti-tifl antibody is strongly associated with neoplasia. why neoplasia was not researched by the dermatology team? moreover, dermatomyositis at the age of 60 years raises concerns about neoplasia.

---> I think you should better discuss that in all the papers.

---> 18f fdg pet ct is a useful tool for cancer diagnosis. what it was not used by dermatologists?

In the case description could you describe if a skin biopsy was done? because this can be helpful.

in the case description page 5, line 156.... reference number 4 is not useful. you can just say: the final diagnosis of stage IV esophageal carcinoma was made.

The discussion is well written, just give some words about the utility of pet CT in dermatomyositis management.

To help you to better write your case, I strongly advise you to read and cite these 2 articles:

The Role of Quantitative and Semi-quantitative [18F]FDG-PET/CT Indices for Evaluating Disease Activity and Management of Patients With Dermatomyositis and Polymyositis. Front Med (Lausanne). 2022 Apr 15;9:883727.

[18F]FDG-PET/CT in Idiopathic Inflammatory Myopathies: Retrospective Data from a Belgian Cohort. Diagnostics 2023, 13, 2316.

### Reply 1: Dear reviewer,

We would like to thank you for the praise and also for the comments, which are very relevant.

In fact, the possibility of an underlying neoplasia was considered by the dermatology department, and a comprehensive work-up was prescribed. Unfortunately, the patient refused invasive diagnostic tests, such as gastroscopy and colonoscopy, and missed some scheduled follow-up consultations, which ultimately delayed the diagnosis. The same was true for a muscle biopsy (see Line 72-73 "The patient declined a muscle biopsy.")

Regarding the utility of pet-CT, we would like to thank you for the useful references and we have included a brief discussion in the manuscript. As pet-CT is not readily available in our institution, this exam is often undervalued; however, we agree that the published evidence favors its use and believe that it would have made an impact on the patient's management.

We would like to inform that we have followed your suggestion and removed reference number 4 from the manuscript.

### Reviewer D

Comment 1:

Dear authors.

This is a case report related to Dermatomyositis and esophageal adenocarcinoma.

The patient is described as a Caucasian male with a very long history of gastroesophageal reflux disease untreated, associated with smoking habits. Moreover, the patient was admitted with 4 months of advanced esophageal cancer symptoms. DM symptoms were first evaluated 7 months before admission to the ER.

- 1) DM is more frequently associated with previous virus infections. How to associate DM to esophageal adenocarcinoma. Probably this event was an association and not cause and consequences.
- 2) The patient had a long history of GERD. Is there any previous upper endoscopy? This is very important data for the theory presented by the authors.
- 3) In the conclusion, the authors revealed a concern when patients presented with DM symptoms and its correlation to cancer. However, in this case, the patient had other much more important and previous, long-standing symptoms that would warrant surveillance for esophageal cancer. If there isn't an Upper digestive endoscopy before the final diagnosis it should be considered an important failure.

# Reply 1: Dear reviewer,

Thank you for your thoughtful comments. We acknowledge the patient's prolonged history of gastroesophageal reflux disease (GERD) and the additional risk factor of smoking, even though the latter is more commonly associated with squamous cell carcinoma. Despite a comprehensive review, we did not uncover any records of prior upper endoscopy in the patient's medical history. As mentioned in the manuscript, the patient declined invasive diagnostic tests after the diagnosis of Dermatomyositis (DM), and we suspect a similar reluctance in the past.

The distinctive feature noted in paraneoplastic dermatomyositis is an increased resistance to corticosteroid therapy. In our case, the extended duration of untreated heartburn, preceding the manifestation of dermatological and muscle-related symptoms, coupled with the patient's resistance to corticosteroid therapy, aligns with existing literature. This lends support to the hypothesis that DM could be a paraneoplastic syndrome secondary to esophageal adenocarcinoma and is in line with the literature review used to underpin our discussion (see lines 154-162)