Atypical localization of demodicosis after COVID-19 infection.

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Abstract

Since its outbreak in December 2019, a consistent number of case reports have been published describing a complex spectrum of skin manifestations associated with COVID-19. We report a first observation of demodicidosis of the scalp after a severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) infection.

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Contributors' Statement Page:

Ines Lahouel: Writing the manuscript.

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Case presentation :

A 45-year-old male patient presented with a lesion of the scalp appearing 10 days after a SARS-COV-2 infection. The skin examination found many firm and erythematous papules on a background of a diffuse erythema associated with hair thinning. Skin biopsy revealed excessive Demodex mites in the follicular infundibulum with perivascular and perifollicular lymphocytic infiltration. Based on the clinical and histopathological data, the diagnosis of scalp demodecidosis was retained. The patient was treated with topical metronidazole, achieving a complete regression of the lesions.

Discussion:

COVID-19 caused a variety of dermatological manifestations. Demodicidosis is an ectoparasitosis caused by the proliferation of a mite: *Demodex sp* , that permanently resides in or near the pilosebaceous unit and seborrheic glands. It has been implicated as a pathogen in innumerable skin conditions and typically in blepharitis and facial dermatitis such as rosacea-like or papulo-pustular eruptions[1]. The symptoms of scalp demodicidosis are not common, and can be found mainly in people with weakened immune systems [2]. Immunodeficiency appears to create a favourable environment for the development of the parasite.

In our case, disturbances of the host's immune response caused by SARS-COV-2 explains this atypical localization of demodicidosis.

Key clinical message :

Our observation emphasizes the importance of recognizing the cutaneous manifestations of COVID-19 given their variability and the necessity of a careful and critical skin evaluation in this pandemic period.

References:

1. Fernandez-Flores A, Alija A. Scalp folliculitis with Demodex: innocent observer or pathogen? Braz J Infect Dis. 2009 ;13(2):81-2.

2. Seyhan ME, Karincaoğlu Y, Bayram N, Aycan O, Kuku I. Density of Demodex folliculorum in hematological malignancies. J Int Med Res. 2004;32(4):411-5.

Figures legends:

Figure: 1: Diffuse erythema with erythematous papules associated with hair thinning in the occipital scalp.

Figure 2a: Lymphocytic infiltrate around follicles (Hematoxylin Eosin X 100)**.**

Figure 2b: Multiple Demodex mites within pilosebaceous follicle (Hematoxylin Eosin X 400).