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# Despite the use of ivermectin during the COVID pandemic, scabies keeps playing tricks with us

Classic scabies presents as papules covered by extremely pruritic crusts that occur primarily in fold areas in adults.<sup>1</sup> In children, it can occur on the face, palms and soles and assumes the appearance of vesicles.<sup>2</sup> However, many atypical forms have been described, including those simulating bullous pemphigoid,<sup>3</sup> rupioid psoriasis,<sup>4</sup> Darier's disease<sup>4</sup> and seborrheic dermatitis.<sup>4</sup>

During pandemic times, despite the absence of scientific evidence, many patients have used ivermectin by their own continuously. Using this drug, they thought to be protected against COVID and also treated against many parasites.

We present the case of a 68-year-old woman who complained of burning and pruritic lesions on the face (Figure 1). She had been treated by another dermatologist for rosacea and received several topic treatments, including azelaic acid, metronidazole, systemic antibiotics and isotretinoin, all without response. On the dermatological examination, there were lesions on the decolletage. A biopsy had been performed that suggested a differential diagnosis of tumid lupus, facial granuloma, rosacea and sarcoidosis. After many deeper levels, pathological examination revealed parasite fragments in the corneal layer (Figure 2). The patient was treated with 1% topic permethrin and ivermectin 6 mg per 20 kilograms of weight. After 8 months of treatment, there were no signs of recurrence. The possibility of demodicosis in this case was raised; however, histopathological aspects easily resolve this differential diagnosis. *Demodex folliculorum* infects hair follicles; it is generally not associated with a robust inflammatory infiltrate, and it has a typical morphology that is easily distinguishable from other parasites. By contrast, *Sarcoptes scabieii* occurs in the stratum corneum and is associated with a more robust inflammatory infiltrate with the presence



**FIGURE 2** Haematoxylin and eosin staining, 400×, revealing the presence of many eosinophils (black arrows), leading to several deeper levels and parasite identification (yellow arrow).



**FIGURE 1** Photos show the patient with small red papules with tiny vesicles in the face and decolletage (red arrows). The area marked with a grey arrow shows where the biopsy was performed.

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of eosinophils.<sup>1,5</sup> The diagnosis was possible because the substantial presence of eosinophils triggered a search for a causative agent. It is important to remember that there is no standard laboratory method to diagnose scabies, as PCR tests have low sensitivity.<sup>1</sup> Currently, dermoscopy has been found useful; nevertheless, the diagnosis remains essentially clinical.<sup>1,5</sup>

Notably, the patient was evaluated in the middle of the COVID-19 pandemic, and she reported previous selfmedication with subtherapeutic doses of ivermectin. The case is remarkable for its uncommon clinical presentation that contributed to delayed appropriate treatment and control of agent transmission. It is also important to highlight that such a focal presentation is not exclusive to socially vulnerable people.

The Global Burden of Diseases study reported that the decrease in Disabled Adjusted Life-Year index attributable to scabies was more significant than that of atrial fibrillation and acute lymphocytic leukaemia.<sup>5</sup> Pruritus, secondary bacterial infection and systemic complications can account for this loss.<sup>1,5</sup>

The present case report reveals the possibility of an uncommon presentation of scabies that should be considered, especially in the context of misuse of ivermectin during the COVID-19 pandemic. Maybe, the massive misuse of ivermectin would be related to many unusual scabies presentations, which are not yet described in the current literature.

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The patient in this manuscript has given the written informed consent to the publication of their case details.

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### CONFLICT OF INTEREST None declared.

# DATA AVAILABILITY STATEMENT

Data regarding this study are available upon request to the corresponding author.

## **ETHICAL STATEMENT** Not applicable.

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