

Letters to the Editor

SARS-CoV-2 infection: the same virus can cause different cutaneous manifestations

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Linked Article: Galván Casas et al. *Br J Dermatol* 2020; **183**: 71–77.

DEAR EDITOR, The article of Galván Casas et al. describing the cutaneous manifestations occurring during the COVID-19 pandemic¹ prompted us to make some observations. Information regarding the prevalence of exanthems, their clinical features, and the association between exanthem patterns and disease severity is lacking. In the absence of a clearly defined temporal connection, the relationship between exanthems and SARS-CoV-2 infection is at times unclear, as in the case of urticarial-maculopapular eruptions in patients undergoing treatment with multiple drugs. This is further evidenced by the lack of description of exanthem in patients with severe disease, even though it might have clarified the relationship between eruption pattern and COVID-19 severity. As the authors were unable to describe these cases due to difficulties in obtaining informed consent, perhaps this finding could have been described and the informed consent obtained from patients who recovered from the disease in an intensive care unit. Moreover, serology testing might have been useful in confirming the aetiology in pseudo-chilblain lesions and in lesions in which SARS-CoV-2 RNA was not detected or ignored. Pseudo-chilblain lesions, in our experience, are strongly associated with SARS-CoV-2 infection, especially in asymptomatic paediatric patients.

However, recognizing specific patterns of COVID-19-associated eruptions can be useful in suspecting a SARS-CoV-2 infection, especially in oligosymptomatic patients or in the absence of serology testing. As is well known, a single viral agent can cause exanthems with different clinical patterns, and, apart from classic exanthems such as measles or rubella, most eruptions are not specific for a particular agent. Thus, one agent could be associated with different types of eruption during the same epidemic, even in the case of the same patient. Conversely, the same exanthem could be caused by different viruses, suggesting the aphorism: 'many agents for a pattern, many patterns for an agent'.^{2,3}

Lastly, the authors hypothesize that the reason why patients with SARS-CoV-2 exhibit a variety of exanthems may involve concurrent infection with other viruses.¹ We believe that this

is unlikely. Firstly, given the high number of patients with the same pattern of eruption, one should argue that other viruses circulate in an epidemic form simultaneously to SARS-CoV-2. Furthermore, as most of the mentioned viral infections occur in childhood, it would be surprising that patients with COVID-19, who are usually older, failed to develop a past immunity against the alleged coinfecting viruses.

We believe that an endogenous viral reactivation is more likely, especially as SARS-CoV-2 infection is often associated with a strong systemic inflammatory response and altered immunological reaction.⁴ The high number of cases of herpes zoster and pityriasis rosea observed by Galván Casas et al.,¹ both of which are caused by viral reactivations, together with a recent report of Epstein-Barr virus reactivation in a patient with COVID-19,⁵ could confirm this hypothesis.

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