

**Comment on: “Acral findings during the COVID-19 outbreak: Chilblain-like lesions should be preferred to acroischemic lesions”**



*To the Editor:* We appreciate the interest in our article and the comment by Drs Piccolo and Bassi<sup>1</sup> in which they propose to use the term “chilblain-like lesions” instead of “acroischemic lesions” to denominate the acral lesions in patients with coronavirus disease 2019 (COVID-19). At the time we were analyzing our study, only 2 papers reporting “acroischemia” in COVID-19 patients had been published, and thus, we acquired the same name. In the next days, numerous articles were published reporting these acral lesions with different terms, including chilblain-like lesions, chilblains, pseudochilblain, erythema pernio-like, perniosis-like, vascular skin symptoms, vascular acrosyndromes, COVID-19–induced chilblains, or chilblains of lockdown, among others.

Dermatology has been traditionally a morphologic and descriptive specialty, and we still use a plethora of ancient names based on morphology of skin lesions. We are prone to create new terms by adding the prefix *pseudo-*, or the suffix *-like* to original entities’ names. This is usually due to clinical or histologic resemblance to the original entities or to an incomplete understanding of their pathophysiology.<sup>2</sup>

It is true that many of the reported cases are morphologically similar to classical chilblains or pernio. However, several articles from different countries reported acral lesions with little or no resemblance to chilblains, also affecting other areas than just the fingers, including yellowish-erythematous plaques on the heels, targetoid pink plaques on the dorsum of feet, hands or elbows, swollen and violaceous toes, or acral non-necrotic purpura. We also found in our study a pattern with coalescing macules and vesicles, some of them with targetoid appearance, which did not fit in the classical chilblain description.<sup>3</sup>

As Piccolo and Bassi stated, etymology of the word “chilblains” includes *chill-*(cold). However, most of the reported cases in COVID-19 times have not been related to cold exposure. Given the suggested alterations in coagulation, endothelial dysfunction, and thrombotic response associated with COVID-19,<sup>4</sup> it is not unreasonable to think that similar stimuli (with different intensity) may play a role in these acral lesions both in asymptomatic and

hospitalized patients. In fact, a recent French study did find “vascular microthrombi” in 2 biopsy specimens from nonhospitalized patients with chilblain-like lesions.<sup>5</sup>

We believe that acral skin lesions in COVID-19 patients are a continuum ranging from subtle erythematous macules, chilblain-like lesions, to gangrene or digital ischemia. It is possible that multiple etiologic factors are involved in the development of COVID-19 acral and nonacral skin lesions, including both coagulation disorders and immune responses.

We agree that an international etymologic consensus should be created to group these skin manifestations, at least until the exact pathogenesis is elucidated. Chilblain-like lesions is the term used most often nowadays. It is a morphologic term that is better than the etiologic term acroischemic lesions. However, it is not a perfect term, because it would cover most of the skin manifestations, but not all of them.

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