

## Contemporary occurrence of Chilblain-like lesions and Pityriasis rosea during the COVID-19 pandemic

Dear Editor,

The occurrence of chilblain-like lesions (CLL) has widely been described in literature during the two waves of COVID-19 pandemic and their association with SARS-CoV-2 infection has been thoroughly discussed.<sup>1-6</sup>

During the second wave of infection, we came across an otherwise healthy 12-year-old girl with a 3-week history of erythematous-oedematous and ulcerated lesions of the toes (Fig. 1), compatible with the diagnosis of CLL. Similar lesions already appeared during the first wave of March-April 2020 and resolved spontaneously in 3 months. Apart from CLL, the patient contemporarily developed a classical mildly itchy pityriasis rosea (PR) on the trunk (Fig. 2) that was the major reason of complaint in this occasion.

Full investigation about COVID status, including nasopharyngeal swab and serology, was obtained with negative results. All the other blood examinations were normal. Family history was negative for cases of COVID-19. The patient was reassured, treated with anti-histamines for pruritus and she is



**Figure 1** Chilblain-like lesions occurring in a 12-year-old girl on the toes (miniature) with ulcerating lesions of the third left toe.



**Figure 2** Herald patch of pityriasis rosea with associated small patches on the chest of the same patient.

now in follow-up for monitoring the evolution of cutaneous diseases.

In the 'mare magnum' of cutaneous manifestations reported during the COVID-19 pandemic, definitely CLL represent the most representative and quite repetitive as they usually affect healthy adolescents with no or mild systemic symptoms with low likelihood to find a positive COVID status and good prognosis although the common long-lasting duration. Beyond the cutaneous manifestations secondary to SARS-CoV-2 infection, namely CLL, macular-papular rash, urticaria and vaso-occlusive signs, other cutaneous diseases probably as a consequence of viral reactivation have been reported with major frequency, such as herpes zoster or PR.

In particular, a few cases of PR in patients positive to SARS-CoV-2 have been published,<sup>7,8</sup> but the evidence that the two conditions could be related remains scarce. Whether PR could be considered a direct manifestations of COVID-19 or the result of Herpesvirus-6 or 7 (HHV-6 or 7) reactivation is not clear, anyway the occurrence of cases of PR during the pandemic could be underreported.

The co-occurrence of CLL and PR has never been reported before and our case is the first one to the best of our knowledge. The exact aetiology of PR is not known yet, even though it is likely to be considered like an immune reaction secondary to HHV-6 or 7 infection or reactivation. It has been recently shown by Drago *et al.*<sup>8</sup> a concomitant reactivation of HHV-6, HHV-7 and Epstein-Barr Virus during COVID-19, thus demonstrating why PR may appear in these patients.

On the other hand, CLL are often found in negative patients and they could be related to an immune reaction, probably mediated by interferon, in young patients with strong response to virus and fast clearance of serum antibodies.<sup>9,10</sup>

Whether the association between PR and CLL could be considered casual or not could be matter of debate, but anyway, the two phenomena, although different in clinical presentation, have in common some features: (i) they usually affect young patients; (ii) no or mild systemic symptoms are seen; (iii) the direct presence of guilty virus is hard to demonstrate; (iv) spontaneous long-lasting resolution.

In this particular case, as the patient had a recurrence of CLL after a first episode a few months before, the second occurrence of CLL together with the unusual association with PR could be considered as an immune response following either another contact with SARS-CoV-2 or a reactivation of HHV-6 or 7 in a patient who previously developed immunity against SARS-CoV-2.

Our invite to researchers is to observe and describe other patients with this very singular association in order to start further and deeper investigations to better clarify the genesis of this very interesting phenomenon, new for everyone such as all what has happened to health community and people in the world.

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### Conflict of interest

The authors have no financial obligations or conflict of interest to declare.

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## Ipsilateral herpes zoster after the first dose of BNT162b2 mRNA COVID-19 vaccine

### Editor

As vaccination campaign against SARS-CoV-2 is ongoing worldwide, dermatologists are witnessing an increasing number of cutaneous adverse events. Delayed hypersensitivity reactions at the site of injections with mRNA-1273 (Moderna)<sup>1</sup> and BNT162b2 (Pfizer-BioNtech) vaccines<sup>2</sup> are now known as 'COVID-arms'. Besides, cases of Rowell's syndrome 24 h after vaccination<sup>3</sup> and persistent exanthema have been recently reported.<sup>4</sup> Bostan and Yalici-Armagan<sup>5</sup> described the case of a 78-year-old man with thoracic herpes zoster (HZ) 5 days after COVID-19 vaccination. We wish to report an additional case from Finland.

A 44-year-old healthcare provider received his first injection of BNT162b2 mRNA COVID-19 vaccine on 2nd February. He had a history of dyslipidemia and active smoking. He presented pain and local redness after vaccination, as widely reported.<sup>2</sup> However, after a week, pain had not subsided and extended to the neck and the left hand. It also changed to a neuropathic pain. He also developed intense tiredness and noticed a rash on the left upper limb. Upon full examination, he displayed an herpetiform vesicular and erythematous rash on the left upper back (Fig. 1a) and lateral side and inner side of the left arm (Fig. 1b) that followed approximately C5–C6 dermatomes. A diagnosis of HZ was made. He still