changes in COVID and post-COVID patients in order to obtain
a panoramic image of COVID-19’s systemic manifestations.
Nails can function as an alarm sign for physicians regarding sys-
temic diseases, including COVID-19.

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None.

Conflicts of Interest
None declared.

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Recurrence of previous chilblain
lesions during the second wave
of COVID-19: can we still doubt
the correlation with SARS-CoV-2?

To the editor,

Between March and April 2020, after the onset of the first wave
of the COVID-19 pandemic, a cluster of acral chilblain-like
lesions (ACBLL) was observed in young subjects.1,2 Despite
efforts to substantiate the correlation of ACBLL with SARS-
CoV-2 infection, only a minority of cases have tested positive on
reverse transcriptase-polymerase chain reaction (RT-PCR) or
serology. Only 3 of the 33 patients with ACBLL seen at our
hospital in this period had evidence of recent SARS-CoV-2
infection on these tests. In all cases, skin lesions developed 1–
4 weeks after the COVID-19 pandemic peak in the local popula-
tion and resolved spontaneously within 4–12 weeks after their
onset.

Following the start of the second pandemic peak, in the fall of
2020, we observed 7 new cases of ACBLL with clinical and lab-
oratory features similar to those of the cases seen in the first wave.
Again, only one of the seven patients tested positive on RT-PCR
or serology for SARS-CoV-2. The temporal relationship between
this second cluster and the pandemic outbreak was similar to
that observed previously.

Importantly, besides the 7 new cases, 6 of the 33 patients seen
during the first wave returned to our observation because of the
recurrence of ACBLL, which developed 1–4 weeks after the sec-
cond COVID-19 peak; the clinical features were comparable to
those of the previous episode. Three of the six had systemic and/
or respiratory symptoms before the relapse of ACBLL. Three
reported recent contact with a confirmed case of COVID-19. All
patients tested negative for SARS-CoV-2 on RT-PCR. Only one
patient, who was already positive for IgG at the first evaluation,
had positive IgM and IgG for SARS-CoV-2 (Maglumi, 2019-
CoV IgM and IgG CLIA assays; Snibe diagnostics) at the time of
relapse.

Skin biopsy, performed in 5 of the 6 patients with reactivated
lesions, showed a non-specific histological picture consistent
with published reports of COVID-19-associated ACBLL3,4
(Fig. 1). Constant features were as follows: cuffed perivascular
lymphocytic infiltrate with oedema and variable fibrinoid
changes – consistent with lymphocytic vasculitis – in dermis,
often extending into the subcutaneous tissue. A lymphocytic
infiltrate around sweat glands was also present in all cases. On
immunohistochemistry, the inflammatory infiltrate was mostly
composed of CD3+ T lymphocytes (with a normal CD4/CD8
ratio), together with scattered CD20+ B lymphocytes and occa-
sional CD68+ histiocytes. Inconstant features were as follows:
dermal oedema, vacuolar interface changes and accumulation of
dermal mucin among the collagen fibres of the dermis.

Of note, 6/6 reactivations occurred at the identical anatomical
site involved in the first episode, and the pattern, shape and
morphology were the same as those of the previously observed
lesions (Fig. 2).

Recent dermatoscopic observations and histopathological
data of microvascular damage5,6 argue in favour of our hypothe-
sis that SARS-CoV-2-induced vascular damage could have per-
sisted subclinically after the disappearance of skin lesions, as a
consequence of smouldering T-cell-mediated immune response.
Further contact with SARS-CoV-2 might have again triggered a
local inflammatory response, which, in turn, might have led to
the recurrence of full-blown ACBLL.

Our observation of the reactivation of ACBLL during the sec-
ond COVID-19 wave in patients who had comparable lesions in
the same anatomic areas in the previous pandemic wave, together with the occurrence of new cases after the disappearance of the phenomenon in the summer season, strongly suggests that this disorder is closely related to SARS-CoV-2 infection. The reason why the diagnostic tests for the virus are often negative is unclear, but may depend on the intensity of the viral load, the characteristics of the virus or particular genetic or environmental factors. Further studies are needed to elucidate the pathogenetic mechanisms underlying this peculiar clinical manifestation of SARS-CoV-2 infection.

Figure 1 Biopsies of relapsed chilblain-like lesions: (a) H&E. Magnification 5×. Presence of perivascular and peri-ecrine lymphocytic infiltrate. (b) H&E. Magnification 20×. In the mid-dermis, presence of perivascular and peri-ecrine lymphocytic infiltrate. (c) H&E. Magnification 10×. In the hypodermis: lymphocytic perivascular and mural infiltrate. (d) Alcian blue (pH 2.5) stain, magnification 10×. The histochemical stain reveals the presence of mucin in the reticular dermis, around vessels and sweat glands. (e-f) Immunohistochemical reaction against T-cell marker CD3: The perivascular infiltrate consists mostly of T lymphocytes; the picture is consistent with lymphocytic vasculitis; (e: magnification 10×; f: magnification 20×).
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Conflict of interests
The authors have no conflict of interest to declare.

Ethical approval
All procedures performed in studies involving human participants were in accordance with ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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COVID-19-triggered sarcoidal granulomas mimicking scar sarcoidosis

Editor
Diverse cutaneous manifestations of coronavirus disease-2019 (COVID-19) have been reported including morbilliform, perrnio-like, urticarial, vesicular and papulosquamous eruptions. In