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Letter to the Editor 20/2155R2reply

Response to 'No evidence of SARS-CoV-2 infection by polymerase chain reaction or serology in children with pseudo-chilblain'. Reply from the authors

Dear Editor, Recalcati *et al*. conclude that chilblain-like lesions (CLLs) are part of the spectrum of COVID-19 based on reports of SARS-CoV-2 in endothelial cells of skin biopsies assessed by immunohistochemistry and electron microscopy (EM).[1] Nevertheless, the conclusion does not seem to be adequately supported by the data. Recalcati *et al.* expand their previously reported case series to include 32 patients with CLLs. In 21 of 32 cases, no nasopharyngeal swab (NPS) was tested for SARS-CoV-2. Two of 11 patients subjected to molecular testing were positive for SARS-CoV-2, but no serological test was performed to verify the seroconversion. Three patients tested positive for IgM and negative for IgG antibodies without any confirmation of infection through NPS. Again, taken together the diagnostic studies performed confirm that the vast majority of their patients did not test positive for the SARS-CoV-2 genome or for specific IgG. To *et al*. demonstrated that patients with SARS-CoV-2 infection showed an earlier seroconversion for IgG than for IgM. Moreover, they also found a 100% seroconversion for IgG 14 days after the onset of symptoms, but not for IgM.[2] In addition, Van Elslande *et al*. in their study concluded that including IgM antibodies did not improve the diagnostic performance in relation to COVID-19.[3] Therefore, in light of currently available information, the presence of IgM should not be taken as a diagnostic standard given the insufficient level of specificity. The presence of IgM antibodies, not supported by positive NPS and/or seroconversion for specific anti-SARS-CoV-2 IgG antibodies, could be a false-positive result.

To support the conclusion that CLLs are associated with COVID-19, Recalcati *et al*. cite Colmenero *et al*. However, a substantial limitation of that study was the lack of any serological assay performed in their patients. The use of EM morphology is certainly of interest but cannot be taken as a completely satisfactory state-of-the-art assessment of a novel virus. Detection of SARS-CoV-2 using molecular methods in biopsies would certainly offer much more stringent evidence of the presence of the virus in the lesional tissue.

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Although we may agree that the cluster of chilblains in children occurred during the pandemic peak and this suggests some correlation, this has not been sufficiently clarified so far and remains intriguing.

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References

1 Colmenero I, Santonja C, Alonso-Riaño M *et al*. SARS-CoV-2 endothelial infection causes COVID-19 chilblains: histopathological, immunohistochemical and ultrastructural study of seven paediatric cases. *Br J Dermatol* 2020; in press.
2 To KK-W, Tsang OT-Y, Leung W-S *et al*. Temporal profiles of viral load in posterior oropharyngeal saliva samples and serum antibody responses during infection by SARS-CoV-2: an observational cohort study. *Lancet Infect Dis* 2020; **20**:565–74.
3 Van Elslande J, Houben E, Depypere M *et al*. Diagnostic performance of seven rapid IgG/IgM antibody tests and the Euroimmun IgA/IgG ELISA in COVID-19 patients. *Clin Microbiol Infect* 2020; **26**:1082–7.

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