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Chilblain-like lesions during the COVID-19 pandemic: early or late sign?

Dear Editor,

Since the outbreak of novel coronavirus disease 2019 (COVID-19), reports concerning acral cutaneous manifestations are progressively increasing.

We read with interest the article by Landa *et al.*, entitled “Chilblain-like lesions on feet and hands during the COVID-19 Pandemic,” published in the *International Journal of Dermatology*.¹

The authors described a case series of six patients who presented with chilblain-like lesions on the extremities. Of the six cases, three were COVID-19 confirmed by PCR (one patient was

tested 3 weeks before cutaneous involvement). Of the six cases, three referred cough, fever, or congestion 3–4 weeks before, while none reported other coronavirus symptoms at the onset.

In our hospital, we observed several chilblain-like lesions in children and young adults from the beginning of March, concurrently with the pandemic outbreak. We described 14 patients who presented with no systemic symptoms; only in three cases (21%) cough and fever were documented 3 weeks before the onset of the cutaneous lesions. Both nasopharyngeal (n = 3) and rectal swabs (n = 2) for COVID-19 yielded negative results. Skin biopsies were performed in four cases, showing a lymphocytic dermal infiltrate with a prevalent perivascular pattern and signs of endothelial activation. We could not find similar lesions in 107 COVID-19-positive patients (average age 72.2 years) hospitalized in the same period for acute pneumonia. These observations led us to suggest that chilblain-like lesions could be late signs of COVID-19.² Interestingly, during the follow-up of the patients, we observed new lesions relapsing after weeks from the onset in three cases, suggesting an ongoing inflammatory process.

Kolivras *et al.* reported chilblain-like lesions in a COVID-19-positive 23-year-old male.³ The appearance of the plaques was preceded by low-grade fever for 3 days. A previous history of psoriasis treated with secukinumab until 1 month before was documented. They concluded that chilblains may be early symptoms of COVID-19 and that affected patients are likely contagious.

Recently, Piccolo *et al.*⁴ reported on 63 patients collected through social media. In most cases, systemic symptoms (gastrointestinal and respiratory symptoms, fever) preceded cutaneous findings. COVID-19 status was assessed only in 11 cases, with two positive patients. Serology/PCR for other infections was available in 10 patients. They concluded that the prototype of patient is an otherwise healthy adolescent with occasional history of general symptoms preceding cutaneous lesions.

Little is known so far about etiology and pathogenesis of these acral lesions, and whether they are an early or a late sign is controversial. Both our findings and the case series by Landa *et al.* and Piccolo *et al.* corroborate the hypothesis that these lesions could be more likely a late manifestation of COVID-19, because they appear usually weeks after systemic symptoms, with mostly negative COVID-19 swab results. The swab negativity could be explained with the disappearance of viral presence detectable at PCR, after a brief, usually asymptomatic course, in young healthy subjects. The pernio-like skin lesions could therefore be linked to a delayed immune-mediated response addressing the small cutaneous blood vessels. Thus, children could be facilitators of viral transmission in the early stage, before skin involvement.

In conclusion, the “epidemic” of chilblain-like lesions strongly supports the hypothesis of an infectious etiology of this particular condition. It is essential to rule out other viral

infections, mainly parvovirus B19. Only serology, showing antibody response to COVID-19 virus, could validate this hypothesis.

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Which are the “emergent” dermatologic practices during COVID-19 pandemic? Report from the lockdown in Milan, Italy

Dear Editor,

In March 2020, Kwatra launched an international warning about the risk of dermatological practices as vectors for COVID-19 transmission, emphasizing the necessity of an immediate cessation of nonemergent visits.¹

Since March 9, only urgent and deferred consultations, i.e. with a 3-day and 10-day priority, respectively, were admitted in our Dermatology Unit, upon first evaluation of the general practitioner.² During the period corresponding to Italian lockdown, from March 9 to May 4, 203 “priority” patients were admitted (105 males, 98 females) with a median age of 49 years. Pediatric dermatological consultations were carried out in a separated department to avoid overcrowding. Patients’ characteristics and their diagnoses are shown in Table 1.

The most common diagnosis was dermatitis of any causes (54/203; 26.6%): in particular, 24 patients (11.8%) were diagnosed for hand eczema while 30 (14.8%) presented with diffuse

eczema, seborrheic, and atopic dermatitis. The second most common group of diseases were the infectious ones (44/203, 21.7%): scabies (15/203, 7.4%) and herpes zoster (6/203, 3%) were the most frequent. Sixteen patients (7.9%) received a diagnosis of psoriasis, in mild-severe form, being eligible for systemic therapy. Eleven patients (5.4%) had a diagnosis of acute urticaria, among which a patient, who was a nurse at work, was classified as pressure urticaria related to the use of a

Table 1 Patients’ characteristics and diagnoses during Italian lockdown (Dermatology Unit, Fondazione IRCCS Ca’ Granda Ospedale Maggiore Policlinico)

Diagnosis	No of patients <65 years old	No of patients >65 years old	Total
Eczema of any causes	34	20	54
Seborrheic dermatitis	3	0	3
Hand eczema	16	8	24
Psoriasis	11	5	16
Prurigo	2	4	6
Repetitive self-harm syndrome	1	0	1
Urticaria	7	4	11
Pressure urticaria	1	0	1
Acne	3	0	3
Rosacea	2	2	4
Total inflammatory diseases	60	35	95
Melanoma	2	1	3
Nonmelanoma skin cancer	1	5	6
Benign neoplasms	25	15	40
Total skin neoplasms	28	21	49
Scabies	11	4	15
Herpes zoster	3	3	6
Herpes simplex	4	0	4
Wart	2	0	2
Molluscum contagiosum	2	0	2
Body lice infestation	1	1	2
Folliculitis and furunculosis	4	3	7
Cutaneous abscess	3	1	4
Dermatophytosis	0	2	2
Total infectious diseases	30	14	44
Pityriasis rosea	4	0	4
Leg purpura	0	3	3
Maculopapular exanthema	1	0	1
Total parainfective rash	5	3	8
Blistering diseases	1	2	3
Scleroderma	1	2	3
Annular granuloma	0	1	1
Total immunopathology	2	5	7
Total	125	78	203