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**Reply to: “Characterization of acute acro-ischemic lesions in non-hospitalized patients: A case series of 132 patients during the COVID-19 outbreak”**



*To the Editor:* We read with interest the article by Fernandez-Nieto et al.<sup>1</sup> Cutaneous manifestations of coronavirus disease 2019 (COVID-19) are rarely reported. In their letter, Fernandez-Nieto et al<sup>1</sup> described an increased number of acroischemic lesions in young patients from Spain. Most patients were asymptomatic or mildly symptomatic, and none of them developed COVID-19 pneumonia or any other complication.

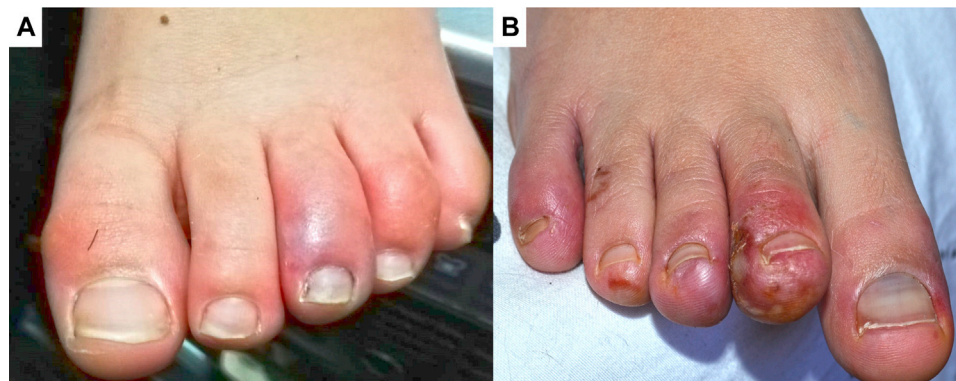
It is intriguing that in Italy we are observing the same uncommon increase. Italy and Spain are the 2 European countries with the highest incidence of COVID-19.<sup>2</sup> In Italy, after the outbreak onset, many general pediatricians reported on our pediatric dermatology network unusual foot injuries similar to chilblains and without any other symptoms. These lesions have never been described with this

frequency before, being usually rare. Thus, we circulated a specific online form among members of the Italian Federation of General Pediatricians to verify the possible association between chilblainlike lesions and COVID-19. Fernandez-Nieto et al<sup>1</sup> applied a different approach by analyzing dermatology consultations for cutaneous lesions. We reached the same results and conclusions for 100 children (Table I). The Spanish authors found 132 cases in 41 days, whereas ours were collected in 10 days. Even in our cohort, lesions were mostly located in the extremities of the limbs, with only 2 cases involving the face. We found a lower rate of systemic symptoms (16% vs 25%), but our population was slightly younger (mean age 12.5 vs 23.4 years), being likely less symptomatic.<sup>3</sup> Almost the same number of positive SARS-CoV-2 test results (1 vs 2 patients) was described in both cohorts. Our patient with a positive result also had extracutaneous symptoms (fever and pharyngodynia). He was exposed to subjects with COVID-19 (family members), as were the COVID-19–infected Spanish patients. This confirms that the chance of finding

**Table I.** Characteristic of Spanish and Italian cohorts

| Characteristics   | Spain, n = 132                     | Italy, n = 100                  |
|---|------------------------------------|---------------------------------|
| Age, mean (range)   | 19.9 (1-56 y)                      | 12.9 (3 mo-17 y)                |
| Male sex (%)  | 71 (53.8)                          | 64 (64)                         |
| Cutaneous symptoms (pain, itching, burning, swelling, erythema) (%) | NA                                 | 61 (61)                         |
| COVID-19 symptoms (%)   | 18 (13.6)                          | 16 (16)                         |
| COVID-19–positive cases (%)   | 2 (1.5)                            | 1 (1)                           |
| Location of skin lesions (%)  | Hands: 41 (31)<br>Feet: 108 (81.8) | Hands: 25 (25)<br>Feet: 75 (75) |
| Duration of skin lesions, mean (range), d                           | 8.7 (2-24)                         | Improvement at day 12 = 76%     |
| Therapy (%)   |                                    | 74 (74)                         |
| Topical steroids  |                                    | 40                              |
| Topical antibiotics   |                                    | 8                               |
| Topical heparin   |                                    | 9                               |
| Topical antifungal  |                                    | 4                               |
| Systemic antibiotics  | NA                                 | 2                               |
| Systemic steroids   |                                    | 4                               |
| Antihistamines  |                                    | 4                               |
| Paracetamol   |                                    | 6                               |
| Gentamicin + betamethasone  |                                    | 11                              |
| No therapy  |                                    | 26 (26)                         |
| Improvement by day 4 (%)  |                                    |                                 |
| Therapy   |                                    | 31 (41.9)                       |
| No therapy  |                                    | 13 (49.9)                       |
| Improvement by day 8 (%)  |                                    |                                 |
| Therapy   |                                    | 43 (58.1)                       |
| No therapy  |                                    | 19 (73.1)                       |
| Improvement by day 12 (%)   |                                    |                                 |
| Therapy   |                                    | 55 (74.3)                       |
| No therapy  |                                    | 21 (80.7)                       |

COVID-19, Coronavirus disease 2019; NA, not applicable.



**Fig 1.** Photographs from 2 enrolled patients. **A**, Left foot lesions at day 0 in a 13-year-old patient with swelling, erythema, and itching. **B**, Right foot lesions at day 12 in a 13-year-old patient with pain, burning, swelling, erythema, and itching.

infected children increases if all cohabiting family members are tested after an index case. Indeed, only 11% of patients in our cohort were tested for severe acute respiratory syndrome Coronavirus 2 (Sars-CoV-2) because of the rigid testing policy in Italy. The Spanish group tested only 8%, thus confirming the difficulty in having testing in overwhelmed public health systems.

We did not differentiate between chilblainlike and erythema multiforme–like lesions. We observed and collected only lesions appearing as circumscribed erythematous edematous elements with a purplish-red color, which were thus defined as erythema perniolike lesions (Fig 1). A local or systemic therapy was considered in only 74 of 100 cases (74%) (Table I). Up to 80% of patients by day 12 had a favorable outcome regardless of the therapy used. This observation is additional evidence for a COVID-19 etiology. Indeed, it is known that chilblains can be secondary to viral infections. The likelihood of other seasonal non–COVID-19 infections was extremely low because children were having contact only with their family members because of the national lockdown.<sup>4</sup>

We definitively agree with Fernandez-Nieto et al<sup>1</sup> about the relationship between erythema perniolike acrolocated lesion onset and COVID-19. General pediatricians worldwide should pay attention to skin lesions during the COVID-19 pandemic.

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