

Skin and COVID-19: is there a lack of attention and should we be concerned?

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Dear Editor,

At the end of December 2019, a deadly pathogenic virus named SARS-CoV-2 was identified in Wuhan, China. This virus is the seventh coronavirus known to infect humans and is responsible for a respiratory disease called COVID-19 (Coronavirus Disease 2019)^{1,2}. This contagious disease is spreading rapidly and is considered a pandemic due to its global spread. The most common symptoms of COVID-19 are fever, dry cough, and tiredness. Difficulties in breathing, chest pain, and loss of speech or movement are considered as severe symptoms. Other possible symptoms include headache, muscle or body ache, loss of taste or smell, diarrhea, runny nose or congestion, and nausea or vomiting; skin rashes and the discoloration of fingers and toes are identified as less common signs of the disease^{3,4}. Being aware of COVID-19 from a dermatological perspective is vital given the fact that cutaneous manifestations are less common and thus less recognized.

A number of studies have reported the dermatological manifestations of COVID-19. Some have described chilblain-like, painful, itchy lesions on the toes, fingers, heels, and/or soles in patients prior to the appearance of mild symptoms and in asymptomatic patients who either lived in hazardous areas or were close contacts of COVID-19 patients; these lesions were observed on the toes of one patient three weeks after disease confirmation^{5,6}. Similar clinical manifestations were noted in another study. Adolescent COVID-19 positive patients with or without symptoms had chilblain-like lesions on the distal parts of one or more toes. These lesions lasted for one to three weeks among the patients⁷. Skin lesions and erythematous rashes were also observed in some patients with COVID-19 after the onset of fever^{8,9}. Along with pseudo-chilblains, vesicular

eruptions, maculopapular rashes, urticarial lesions, and necrosis were noted among confirmed and suspected COVID-19 patients¹⁰ we described 5 clinical patterns. We later described the association of these patterns with patient demographics, timing in relation to symptoms of the disease, severity, and prognosis. Results: Lesions may be classified as acral areas of erythema with vesicles or pustules (Pseudo-chilblain).

Moreover, chickenpox-like vesicles were also observed in one patient among eighteen who developed cutaneous manifestations according to the first report on the dermatological aspects of COVID-19 in Lombardy, Italy¹¹. A review study with the combination of six case series and twelve case reports revealed the most common cutaneous manifestation was the maculopapular exanthem. However, a papulovesicular rash, red-purple papules, urticaria, and livedo reticularis lesions were also observed among COVID-19 patients. This study also reported the majority of the patients experienced cutaneous manifestation on the trunk (66.7%), while some patients found lesions on their hands and feet (19.4%)¹².

The mentioned dermatological manifestations among positive cases of COVID-19 strengthen the hypothesis made in the early stage of this pandemic that skin rashes can be observed among some cases⁵. Most of the studies reported chilblain-like lesions, and some studies observed skin rashes, maculopapular rashes, urticarial lesions, and chickenpox-like lesions in different parts of the body among COVID-19 patients. These signs could appear after other manifestations of COVID-19 have emerged. In some cases, they can occur simultaneously with the other symptoms. However, adolescent patients may remain asymptomatic until skin problems appear⁷. Although patients with skin rashes generally have recovered without the need for treatment⁷, they could spread the

disease if left undetected. Still, there is minimal data available regarding the association between COVID-19 and skin rashes. Dermatologists around the world should be aware of such manifestations during this pandemic and must help generate more data on a global scale.

In conclusion, dermatologists and healthcare workers should ask about the dermatological manifestations along with other symptoms when collecting the patient history, which could be helpful in diagnosing COVID-19 and achieving early detection of asymptomatic cases. In addition, this small disclosure of the skin will assist in revealing silent COVID-19 and stopping the chain of transmission. The fact that there is minimal to no publicity about these manifestations means that the disease may continue to spread. Thus, media and policymakers should make people aware of these less-common signs.

Conflict of interest: None declared.

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REFERENCES

1. Phelan AL, Katz R, Gostin LO. The novel coronavirus originating in Wuhan, China: challenges for global health governance. *JAMA*. 2020;323:709-10.
2. Li Q, Guan X, Wu P, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *N Engl J Med*. 2020;382:1199-1207.
3. WHO. What are the symptoms of COVID-19? World Health Organization. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-coronaviruses>. Published 2020. Accessed June 16, 2020.
4. CDC. Symptoms of Coronavirus. Centers for disease control and prevention. <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>. Published 2020. Accessed June 16, 2020.
5. Landa N, Mendieta-Eckert M, Fonda-Pascual P, et al. Chilblain-like lesions on feet and hands during the COVID-19 pandemic. *Int J Dermatol*. 2020;59:739-43.
6. Romani J, Baselga E, Mitjà O, et al. Chilblain and acral purpuric lesions in Spain during Covid confinement: retrospective analysis of 12 cases. *Actas Dermosifiliogr*. 2020;111:426-9.
7. Guarneri C, Rullo EV, Pavone P, et al. Silent COVID-19: what your skin can reveal. *Lancet Infect Dis*. 2020;S1473-3099(20)30402-3.
8. Diaz-Guimaraens B, Dominguez-Santas M, Suarez-Valle A, et al. Petechial skin rash associated with severe acute respiratory syndrome coronavirus 2 infection. 2020;156(7):820-822.
9. Mahé A, Birckel E, Krieger S, et al. A distinctive skin rash associated with coronavirus disease 2019 ? *J Eur Acad Dermatol Venereol*. 2020;34:e246-e247.
10. Galván Casas C, Català A, Carretero Hernández G, et al. Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. *Br J Dermatol*. 2020;183:71-7.
11. Recalcati S. Cutaneous manifestations in COVID-19: a first perspective. *J Eur Acad Dermatology Venereol*. 2020;34:e212-e213.
12. Sachdeva M, Gianotti R, Shah M, et al. Cutaneous manifestations of COVID-19: report of three cases and a review of literature. *J Dermatol Sci*. 2020;98:75-81.