

DR. SEBASTIANO RECALCATI (Orcid ID : 0000-0001-5709-6689)

Article type : Letter to Editor

Title: Cutaneous manifestations in COVID-19: a first perspective

Key words: COVID-19, cutaneous manifestations, skin, cutaneous

Manuscript word count: 562

Author: S. Recalcati, MD

Institution: Department of Dermatology, ASTT Lecco, Alessandro Manzoni Hospital, Lecco, Italy.

Corresponding author:

Dr. Sebastiano Recalcati

Department of Dermatology, ASTT Lecco, Alessandro Manzoni Hospital, Lecco, Italy.
via dell'Eremo 9/11, 23900 Lecco, Italy

e-mail: sebastianorecalcati@gmail.com

phone: +39 341489953

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/JDV.16387](https://doi.org/10.1111/JDV.16387)

This article is protected by copyright. All rights reserved

Funding sources: none reported.

Conflict of interest: the author has no conflicts of interest to declare.

Dear Editor,

In December 2019 unexplained pneumonia cases were initially reported in Wuhan, China. The pathogen, a novel coronavirus named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was isolated from lower respiratory tract samples of infected patients and the resultant disease was termed as COVID-19 (Coronavirus Disease 2019)¹. By Feb 15, COVID-19 has rapidly spread throughout China and across the world, until a pandemic condition was announced by March 11².

Italy was one of the most involved country and extraordinary restricted measures were performed. Nonetheless many health workers were affected and due to this condition a strong effort was asked to every physicians and nurses. Dermatologists were involved in first line as well, especially in the triage stations and in the medical wards with positive cases, because of the lack of medical doctors.

Suspect of COVID-19 is mainly made on clinical signs (fever, fatigue, dry cough, anorexia, dyspnea, rhinorrhea, ageusia, anosmia), on vital parameters (temperature, pulse oximetry saturation), and on radiological settings (X-ray, Chest CT scan)³. Laboratory findings could often demonstrate lymphopenia and elevated LDH. Nasopharyngeal and oropharyngeal swab, allowing the virus isolation, confirm the diagnosis.

There are no data in the literature so far about skin manifestations in COVID-19.

As dermatologists we tried to analyze the cutaneous involvement in COVID-19 patients hospitalized in the Lecco Hospital, Lombardy, Italy. We visited directly or indirectly (because of the high-risk of contagious and the lack of protective masks) 148 positive patients and we tried, where it was possible, to record medical history. No clinical images were performed because of the high-risk to infect other patients, introducing a photographic device in a restricted room.

Analyzing history of recent drug intake, we excluded 60 patients that had used any new medicine in the 15 previous days.

From the collected data (88 patients), 18 patients (20.4%) developed cutaneous manifestations. 8 patients developed cutaneous involvement at the onset, 10 patients after the hospitalization.

Cutaneous manifestations were erythematous rash (14 patients), widespread urticaria (3 patients) and chickenpox-like vesicles (1 patient). Trunk was the main involved region. Itching was low or absent and usually lesions healed in few days. Apparently there was not any correlation with disease's severity.

Analyzing these data, we may speculate that skin manifestations are similar to cutaneous involvement occurring during common viral infections.

This is a first report and a first perspective of SARS-CoV-2 cutaneous manifestations. Indisputably we need more papers to confirm and better understand skin involvement in COVID-19. Additionally, both the awareness of protection and protective facilities, generally lacking in medical departments, are of primary necessity. Transmission of SARS-CoV-2 may occur during an incubation period that may be as long as 14 days⁴. Asymptomatic individuals (or individuals within the incubation period) has also been described as possible carriers, however, the extent to which this occurs remains unknown⁵. Person-to-person spread is thought to occur mainly via respiratory droplets, resembling the spread of influenza. With droplet transmission, virus released in the respiratory secretions when a person with infection coughs, sneezes, or talks can infect another person if it makes direct contact with the mucous membranes; infection can also occur if a person touches an infected surface and then touches his or her eyes, nose, or mouth. Currently, we strongly underline that infection prevention and control are urgent and critical due to the lack of specific treatment and heightened risk of spreading during the incubation period⁶.

References:

1. Jin YH, Cai L, Cheng ZS et al. A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version). *Mil Med Res*. 2020;**7**:4.
2. Ng OT, Marimuthu K, Chia PY, et al. SARS-CoV-2 Infection among travelers returning from Wuhan, China. *N Engl J Med*. 2020 Mar 12. doi: 10.1056/NEJMc2003100. [Epub ahead of print].
3. Wang D, Hu B, Hu C et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. *JAMA*. 2020 Feb 7. doi: 10.1001/jama.2020.1585. [Epub ahead of print].
4. Rothe C, Schunk M, Sothmann P et al. Transmission of 2019-nCoV Infection from an Asymptomatic Contact in Germany. *N Engl J Med*. 2020;**382**:970-971.

- Accepted Article
5. Bai Y, Yao L, Wei T, et al. Presumed Asymptomatic Carrier Transmission of COVID-19. *JAMA*. 2020 Feb 21. doi: 10.1001/jama.2020.2565. [Epub ahead of print].
 6. Tao J, Song Z, Yang L, Huang C, Feng A, Man X. Emergency management for preventing and controlling nosocomial infection of 2019 novel coronavirus: implications for the dermatology department. *Br J Dermatol*. 2020 Mar 5. doi: 10.1111/bjd.19011. [Epub ahead of print].