

“COVID-Mask”: An atypical livedoid manifestation of COVID-19 observed in a Northern Italy hospital

Dear Editor,

We read with great interest “Cutaneous signs in COVID-19 patients: a review” by Wollina et al recently published in *Dermatologic Therapy* journal.¹ The authors overviewed all skin findings related to coronavirus disease 2019 (COVID-19) infection described in the literature until now, such as morbilliform or vesicular rash, urticaria, and chilblains.^{1,2} However, livedo reticularis (LR) has been poorly described.

In April, Manalo et al reported two cases of transient LR occurring on the legs of two COVID-19 positive patients.³

Herein, we report a case of transient LR of the trunk and face in a 62-year-old Caucasian female patient, hospitalized for interstitial pneumonia and COVID-19 symptoms (confirmed with polymerase chain reaction in nasopharyngeal swab). Seven days earlier, she had experienced fever above 37.5°C, nasal congestion, and cough.

Fourteen days after hospital admission, the patient developed reddish patches on her abdomen concomitantly with worsening of respiratory status for which she received noninvasive ventilation. Dermatological examination revealed an asymptomatic, nonitchy rash, consisting of livedoid patches on the back (Figure 1), abdomen, and face, in the absence of other physical findings on the lower legs. Furthermore, the patient had livedoid maculae, which disappeared on diascopy, involving the bilateral periorbital skin (eyebrow region, internal and external eye angles, upper and lower eyelid), back of the nose and frontal region conferring a *mask-like* appearance (Figure 2). The patient was on chronic treatment for hypertension and type II diabetes mellitus and she had not recently started taking new medications. A clinical diagnosis of transient LR COVID-19-related was made.



FIGURE 1 Livedo reticularis on the back of a 62-year-old woman. Several livedoid erythematous maculae with racemose appearance are observed






FIGURE 2 The patient had livedoid erythematous maculae involving the eyebrow region, internal and external ocular angles, upper and lower eyelids, dorsum of the nose and the frontal region giving it a *mask-like* appearance

LR is a cutaneous condition typically observed in the lower extremities, caused by reduction in blood flow and reduced oxygen supply to the skin, sustained by thrombosis, emboli or vasospasms.⁴ It usually affects the gravity-dependent areas, which have an increased risk of thromboembolism.⁴ The latter have been described in other organs (eg, heart, lung, brain, or kidney) in association or not with disseminated intravascular coagulation and recently also in the skin.⁵

The reported case shows how even the trunk, the back, and the face may also be affected. Due to the brief duration and evanescence of skin manifestations, which resolved 24 hours after starting therapy with heparin 4000 UI twice a day, it was not possible to perform a biopsy with histological examination. However, this report is a warning that the skin should also be carefully assessed in COVID-19 patients. The facial manifestation, renamed "COVID-mask" due to its *mask-like* appearance, in fact, can be confused with other inflammatory facial disorders even if it differs for its sudden onset and fugacity. Studies on larger cohorts of patients are certainly necessary to assess the actual incidence of this manifestation and to evaluate histological and laboratory correlations.

CONFLICT OF INTEREST

The authors declare no potential conflict of interest.

Claudio Conforti¹ 
Iris Zalaudek¹
Roberta Giuffrida² 
Francesca Zorat³
Andrea Grillo³
Nina Colapietro³
Morena Francica³
Nicola di Meo¹ 

¹Department of Dermatology and Venereology, Dermatology Clinic, Maggiore Hospital, University of Trieste, Trieste, Italy

²Department of Clinical and Experimental Medicine, Section of Dermatology, University of Messina, Messina, Italy

³Department of Clinical and Surgical Sciences, University of Trieste, Trieste, Italy

Correspondence

Roberta Giuffrida, Department of Clinical and Experimental Medicine, Section of Dermatology, University of Messina, Italy.

Email: roberta_giuffrida@hotmail.it

ORCID

Claudio Conforti  <https://orcid.org/0000-0001-5126-8873>

Roberta Giuffrida  <https://orcid.org/0000-0002-5492-3033>

Nicola di Meo  <https://orcid.org/0000-0002-5987-1375>

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