

Figure 2 Urticaria involving face, on the right side (a) and left side of the face (b).

Apparently, previous studies showed there was not any correlation of urticaria in COVID-19 with disease's severity, which is consistent with our case, because the patient was in stable condition and to date has fully recovered.

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Atypical erythema multiforme palmar plaques lesions due to Sars-Cov-2

Dear Editor,

Since coronavirus disease 19 (COVID-19) was declared as a pandemic, all medical specialties were at the front, including

dermatology. Daily, there are observations mentioning possible cutaneous manifestations of SARS-CoV-2.

Among these manifestations, the most often was a rash which could be erythematous, morbilliform or urticarial mimicking viral exanthema, or chickenpox-like vesicles.^{1–3} Anecdotally, dengue-like petechial eruption was reported.⁴ Some dermatology societies have alerted health professionals to the possibility of acral involvement such as ischaemia and livedo in the context of thromboembolic manifestations of COVID-19. Recently, a case of COVID-19 infection-induced chilblains was reported with histopathological findings showing lichenoid, perivascular and peri-ecrine infiltrate of lymphocytes associated with necrotic keratinocytes.⁵

We report two patients with diagnosis of COVID-19 presenting erythema multiforme (EM) lesions which could be another acral cutaneous manifestation due to SARS-CoV-2.

First case is a 17-year-old adolescent with no medical history, documented to have a mild SARS-CoV-2 infection for which he took vitamin C only. On the 15th day of the onset of symptoms, he developed erythematous maculopapular atypical targetoid eruption of palms only (Fig. 1). Lesions were painless and mild



Figure 1 Erythematous maculopapular atypical targetoid eruption of palms.

itching. There was no mucosal involvement. No recent episode of recurrent herpes was reported.

Second case is a 29-year-old man with no past medical history had been diagnosed with COVID-19 and treated by hydroxychloroquine associated with azithromycin. He developed fixed and asymptomatic erythematous urticarial targetoid lesions on his palms (Fig. 2). He had started taking medication 3 days before rash, and COVID-19 symptoms had started 12 days earlier. Hydroxychloroquine and azithromycin were continued, and palm eruption was progressively disappeared.

Erythema multiforme is immune-mediated reaction that involves the skin and sometimes the mucosa due to infections, especially herpes simplex virus and mycoplasma pneumonia (MP), and medications like hydroxychloroquine. It consists of a polymorphous eruption of macules, papules and characteristic 'target' lesions that are symmetrically distributed with a propensity for the distal extremities. Histological findings are apoptotic individual keratinocytes and perivascular lymphocytic infiltrate in the papillary dermis and along the dermo-epidermal junction.




Figure 2 Fixed and asymptomatic erythematous urticarial targetoid lesions of palm.

Mycoplasma pneumonia-related EM has a distinctive presentation compared with non-MP EM, with more diffuse and atypical targets, more mucositis and respiratory tract sequelae.⁶ EM is a rare hydroxychloroquine-induced cutaneous adverse reaction with generalized distribution involving trunk, abdomen, back and mucosa.⁷ On another side, palmar plaques should suggest syphilis, especially in young people.⁸ Both of our patients had localized acral targetoid lesions with no mucosal involvement and a negative syphilitic serology. This clinical presentation associated with chronology and evolution of eruption was suggestive of a SARS-CoV-2-related EM rather than other causes particularly hydroxychloroquine or MP. Pathophysiological mechanism could be a hypersensitivity reaction lymphocyte cells mediated with pro-inflammatory cytokines production targeting SARS-CoV-2 antigens present in skin. Limitation of our observations was a lack of histology and MP serology. Further studies are expected to validate our findings.

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Localized mid-face miliaria as a consequence of filtering face piece respirator use during the COVID-19 pandemic

Editor

As a novel coronavirus pathogen, COVID-19 and the current associated pandemic have rapidly transformed daily life since its first detection in December 2019 in Wuhan, China. Not only are strict social distancing measures now the status quo, but within the occupational setting of healthcare provision, healthcare workers (HCWs) have had to quickly adapt to an entirely different way of working. Part of this new routine encompasses the now habitual donning of personal protective equipment (PPE), not least the filtering face piece respirator (FFP), particularly for aerosol generating procedures (AGPs). In this regard, front-line workers face the largest risk not only from COVID-19 exposure, but also from the consequences of wearing PPE for extended periods.

Whilst specific cutaneous sequelae due to COVID-19 itself have not yet been described, skin problems related to PPE worn during the pandemic are emerging, and have recently been recognized in the document published in April 2020 by NHS England which provides advice on how to prevent facial skin damage beneath PPE.^{1–2} This document advocates use of a skin protectant if wearing PPE for extended periods, and promotes regular breaks (ideally every 2 h) from wearing a FFP mask to relieve tissue pressure and reduce humidity. The chosen barrier cream or tape should not compromise the integrity or fit of the mask.

We postulate that the cutaneous complications reported during the COVID-19 pandemic stem from the hyperhidrotic effect of PPE, friction, epidermal breakdown, pressure urticaria and contact dermatoses, all of which may be exacerbated in the context of pre-existing skin disease.^{1,3} Experience from previous pandemics has shown skin inflammation and erythema, papules, maceration and scaling to be the most frequently reported adverse cutaneous outcomes of extended PPE use, with the most commonly affected sites being the nasal bridge, cheeks, forehead and hands.⁴

Here, we report individual cases of two female theatre nurses working within the same surgical unit within the United Kingdom during the current COVID-19 pandemic, neither with pre-existing skin disease. Each sustained a morphologically similar cutaneous eruption following single use of a FFP3 respirator mask (make: 3M, model: 8835+, batch number 1c20058026), having assisted during an uninterrupted 4.5-h theatre list on the same day. Immediate symptoms upon removal of the mask consisted of mild erythema and pain which progressed overnight. The following morning, crops of 1–2 mm pustules with