



confirming vasculitis. This particular form of the disease seems to affect mostly young people and is apparently not associated with respiratory symptoms.

With this study, we have observed that cutaneous manifestations are not usual and that in cases of COVID-19, they are mainly aspecific. However, highlighted clinical features such as chill burns could be a sign of virus carriers or previous infection. Further studies are needed to confirm and better characterize skin reaction in COVID-19.

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Acute urticaria with pyrexia as the first manifestations of a COVID-19 infection

Dear Editor

The coronavirus disease 2019 (COVID-19) affects principally the respiratory tract but recent studies described that COVID-19

could present a broader clinical spectrum from the absence of any symptoms to heart,¹ digestive² or Ear-Nose-Throat (including anosmia and ageusia)³ manifestations. Here, we report two cases of peculiar skin manifestation.

A 71-year-old man was admitted to the hospital for general weakness, pyrexia and a cutaneous rash, all appearing the day before with strictly no other complaints. A dermatologist diagnosed a very extensive acute urticaria. There was no change in the patient's treatment or habits during the previous few weeks. He was allergic to iodine but no contrast agent had been injected before the eruption. His comorbidities included obesity (BMI 32), insulin-dependent diabetes mellitus, hypercholesterolaemia, obstructive sleep apnoea-hypopnoea syndrome, high blood pressure, stroke 18 months ago without further sequelae and kidney failure on dialysis three times a week. All his parameters, physical examination, two pairs of blood cultures, a PCR research of Influenza A and B on a nasopharyngeal smear and an electrocardiogram were normal. Blood test revealed a mild lymphopenia (1120/mm³), a slightly elevated CRP (13.2 mg/L > 5 mg/L) and increased liver enzymes (GOT, GPT, LDH, GGT doubled). Chest X-ray and abdominal CT-scan also failed to identify any infectious site. A few days after admission, the patient presented clinical deterioration with increased temperature and CRP, hypoxaemia, unilateral ankle pain, constipation, chest pain, atrial fibrillation and tachycardia. A nasopharyngeal smear test revealed a COVID-19 infection. Urticaria improved gradually with bilastine. Unfortunately, he died 14 days after admission of end-stage respiratory failure following COVID-19 infection. Alongside that, some nephrologists, caregivers and dialysis patients were tested positive. The pandemic hit Belgium in early February 2020, and the first case of COVID-19 was confirmed in our hospital on 9 March, when the patient's first symptoms started. Hygienic protective measures were not yet in place.

A 39-year-old nurse, who works in a rest home, went to the doctor for a generalized, pruritic urticarial rash (Fig. 1a,b) that had started 2 days ago on her forearms. Concomitantly, pyrexia (38.3°C) with chills, myalgia and headache had appeared. She also suffered from rhinorrhoea, mild dry cough and dyspnoea but had no digestive or urinary complaints. There was no change in her daily habits or drugs. She had been skiing 3 weeks earlier in Haute-Savoie, close to one of the cores of this pandemic. Bilastine gradually improved her rash. Anosmia and ageusia occurred 5 days after and lasted a week. Her nasopharyngeal smear was positive for SARS-CoV-2. Thereafter, her 8-year-old son developed an urticaria and her husband presented a radiologically confirmed COVID-19 infection.

Very few data are available concerning the association between urticaria and COVID-19. A medical team of Wuhan⁴ has studied 140 patients infected with SARS-CoV-2, among whom they noticed two patients with chronic urticaria but did not mention any acute urticaria. More recently, an Italian report showed that, among 88 patients with confirmed diagnosis of COVID-19 who

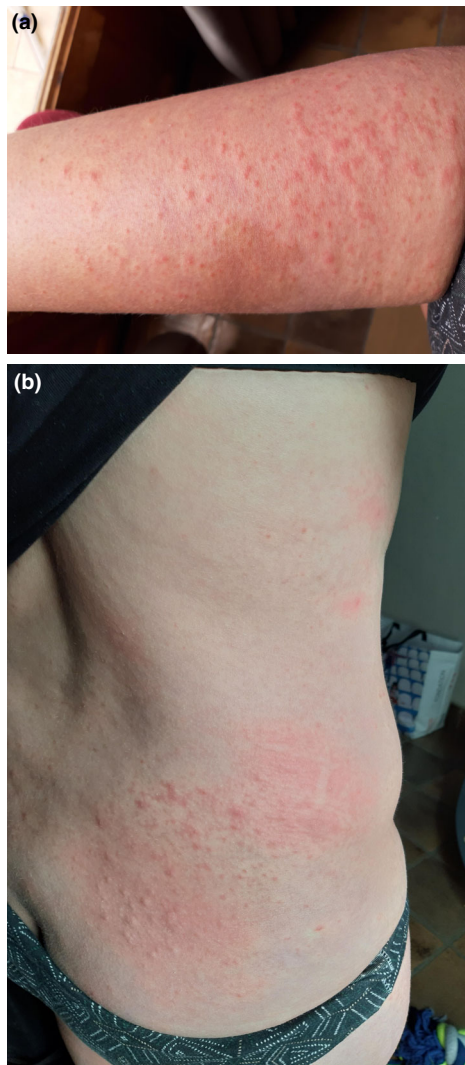


Figure 1 Urticarial rash involving the nurse's thigh (a) and back (b).

had not used any new medicine in the 15 previous days, 20.4% developed skin manifestations, including three widespread urticaria.⁵ No correlation with the severity of the disease has been established until now. A recent survey of Belgian dermatologists⁶ revealed an actual increasing incidence of (giant) urticaria and (urticarial) vasculitis. Chinese dermatologists⁷ have observed these eruptions in COVID-19 pneumonia patients.

Based on these two case reports, we want to warn clinicians that urticaria with pyrexia in the current context of COVID-19 pandemic can be the first manifestations of this infection, even without any respiratory symptoms, like we observed for the anosmia.³ These patients can unknowingly infect others

and contribute to the spread of the COVID-19 infection, hence their necessary isolation. It is evident that urticaria can go with a viral infection and, due to the prevalence of COVID-19, we should consider this as a potential cause when doing our diagnosis. Therefore, we need to have rapidly more available screening tests to counter the underestimation of the number of cases.

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