

COVID-19-related acute genital ulcers

Dear editor,

A wide variety of cutaneous manifestations has recently been reported as COVID-19-related skin lesions, such as erythematous rash, acro-ischaemia or chilblain-like lesions,^{1,2} which can be useful for the clinical diagnosis of COVID-19. Case reports of other less frequent COVID-19-related skin disorders such as pityriasis rosea³ or livedo reticularis⁴ have been also described. In order to report a new clinical manifestation of SARS Coronavirus 2, we present a case of acute reactive genital ulcers in a COVID-19 patient.

A 41-year-old otherwise healthy woman arrived at the emergency department with a 5-day history of painful genital ulcers. She presented also dry cough and rhinorrhoea for the last 10 days. Review of systems was negative except as noted above. The patient did not take any medication before the development of the lesions and denied any recent sexual risk behaviour. She had never presented genital ulcers before. There was no personal or familiar history of inflammatory bowel and/or autoimmune diseases.

Physical examination revealed two necrotic ulcers with raised, sharply demarcated borders in the inferior medial aspect of the

right minor labia, with no evidence of 'kissing' lesions. A single oral aphtha was also observed (Fig. 1). There was no cutaneous involvement.

Ulcer exudate bacterial culture and herpes simplex virus PCR were negative. Blood test showed no abnormalities in blood cell count, coagulation and biochemical parameters. Serologic testing for HIV, Epstein–Barr virus, cytomegalovirus and syphilis was negative. ANA and complement C3 and C4 levels were normal. The patient tested also negative for HLA-B51.

Treatment with prednisone 30 mg daily was initiated. One week later, the patient returned to our department referring improvement of the genital ulcers with pain reduction and complete resolution of the oral aphtha. Physical examination showed less severe erythema and disappearance of the necrotic eschar with a central fibrinous area (Fig. 2). However, she presented worsening of the cough and a 3-day history of chest pain, low-grade dyspnoea and dysthermia. Chest radiography was performed with no evidence of pneumonia. SARS Coronavirus 2 PCR was tested on nasopharyngeal swab with positive result, and a COVID-19 diagnosis with reactive acute genital ulcers (AGU) was made.⁵

Genital ulcers evolved to resolution after one more week of corticosteroid treatment. Chest pain and dysthermia resolved with acetaminophen; cough and dyspnoea also showed improvement. No antibiotic or antiviral agents were required.



Figure 1 Oral aphtha on the upper lip mucosa.



Figure 2 Vulvar ulcers with sharply demarcated borders on the medial aspect of the right minor labia, presenting a central fibrinous area.

Acute genital vulvar ulcerations are non-sexually acquired lesions characterized by sudden onset of a few genital ulcers, presented typically in girls and young women. The terms AGU or Lipschütz ulceration are used to describe ulcers associated with an immunologic reaction to a distant source of infection or inflammation.⁶ The most common triggering factors are infectious diseases, specially flu-like and mononucleosis syndrome infections.^{5,7} In many cases, the patients present also other symptoms, mainly oral aphthae, malaise, lymphadenopathy or fever,⁸ and concomitant cutaneous manifestations such as erythema nodosum can also be observed.⁶ Therapies for AGU include anti-inflammatory drugs, topical anaesthetics and corticosteroids. When a triggering infection is documented, antimicrobial agents are also useful for the management of the ulcerations. The lesions commonly resolve within 3 weeks.

Some virus species have been well defined as triggering agents of Lipschütz ulcers, specially Epstein–Barr virus. Although SARS Coronavirus 2 has been associated with oral ulcers,⁹ we did not find previous reports of coronavirus-related AGU in the English literature. We report this case in order to describe a potential reactive dermatologic manifestation of the COVID-19. Moreover, we propose that Lipschütz ulcers could be triggered by SARS Coronavirus 2, comparably to other respiratory virus infections.

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Conflicts of interest

None declared.

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References

- Galván Casas C, Català A, Carretero HG. Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. *Br J Dermatol* 2020. [Epub ahead of print]. <https://doi.org/10.1111/bjd.19163>
- Recalcati S. Cutaneous manifestations in COVID-19: a first perspective. *J Eur Acad Dermatol Venereol* 2020; **34**: e212–e213. [Epub ahead of print]. <https://doi.org/10.1111/jdv.16387>
- Ehsani AH, Nasimi M, Bigdelo Z. Pityriasis rosea as a cutaneous manifestation of COVID-19 infection. *J Eur Acad Dermatol Venereol* 2020. [Epub ahead of print]. <https://doi.org/10.1111/jdv.16579>

- Manalo IF, Smith MK, Cheeley J, Jacobs R. A dermatologic manifestation of COVID-19: transient livedo reticularis. *J Am Acad Dermatol* 2020. [Epub ahead of print]. <https://doi.org/10.1016/j.jaad.2020.05.001>
- Sadoghi B, Stary G, Wolf P, Komericki P. Ulcus vulvae acutum Lipschütz: a systematic literature review and a diagnostic and therapeutic algorithm. *J Eur Acad Dermatol Venereol* 2020. [Epub ahead of print]. <https://doi.org/10.1111/jdv.16161>
- Huppert JS. Lipschutz ulcers: evaluation and management of acute genital ulcers in women. *Dermatol Ther* 2010; **23**: 533–540.
- Vismara SA, Lava SAG, Kottanattu L *et al*. Lipschütz's acute vulvar ulcer: a systematic review. *Eur J Pediatr* 2020. [Epub ahead of print]. <https://doi.org/10.1007/s00431-020-03647-y>
- Farhi D, Wendling J, Molinari E *et al*. Non-sexually related acute genital ulcers in 13 pubertal girls: a clinical and microbiological study. *Arch Dermatol* 2009; **145**: 38–45.
- Martín Carreras-Presas C, Amaro Sánchez J, López-Sánchez AF, Jané-Salas E, Somacarrera Pérez ML. Oral vesiculobullous lesions associated with SARS-CoV-2 infection. *Oral Dis* 2020; 1–3. [Epub ahead of print]. <https://doi.org/10.1111/odi.13382>

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Cutaneous manifestations of hospitalized coronavirus disease 2019 patients: a report of six cases with clinicopathologic features and viral RNA *in situ* hybridization

Dear Editor,

Novel coronavirus disease 2019 (COVID-19) caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was declared a global pandemic on March 2020.¹ Recalcati *et al.*² reported cutaneous manifestations in 20.4% of COVID-19 patients. We identified six patients (five female and one male) with COVID-19-associated cutaneous manifestations in April 2020 on the inpatient dermatology consultation service. The mean age was 51 years (range, 28–71 years). All patients presented with fever and upper respiratory symptoms. The median latency before onset of the rash was 9 days (range, 2–21 days). RNAscope ISH assay targeting the SARS-CoV-2 mRNA transcript for the spike protein (V-nCoV2019-S, ACD catalog #848569), validated on positive controls from COVID-19 autopsy lung tissue, was negative in all skin biopsy specimens. Three novel cutaneous patterns were identified: (i) COVID-19-associated exfoliative shock syndrome in two patients presenting with fever, hypotension and a diffuse exfoliative rash that spared mucous membranes (Fig. 1a,b). Skin biopsies demonstrated a subcorneal split with intracorneal neutrophils, parakeratosis and scant dermal inflammation (Fig. 1c,d). Pancultures were negative for staphylococcal infection. Given the overlapping features