

Pityriasis rosea infection in a COVID-19 patient successfully treated with systemic steroid and antihistamine via telemedicine: Literature update of a possible prodromal symptom of an underlying SARS-CoV-2 infection

Dear Editor,

According to the literature, the skin is approximately involved in 2%-20.4% of all COVID-19 patients.^{1,2} The most reported cutaneous manifestations are an exanthematous rash, urticaria, chickenpox-like vesicles, livedo reticularis, chilblain-like lesions, petechiae, and acute hemorrhagic edema of infancy.² Different cases of pityriasis rosea (PR) and pityriasis rosea-like eruptions have been recently reported.¹⁻¹⁰ These observations correspond to the fact that HHV-6 and HHV-7 (probable etiological agents of PR) can be reactivated by viruses of the coronavirus family, including SARS-CoV-2.^{4,6}

A 33-year-old healthy Caucasian woman, with a personal history proving negative for any recent drug intake and a type III Fitzpatrick's phototype, presented, via a telemedicine consultation, with a 20-day-old history of a cutaneous manifestation characterized by the onset of an erythematous, scaly and annular "herald patch" on her right breast. Three days later, generalized papular and plaque-type lesions erupted across the trunk with a "Christmas tree" like pattern, sparing the face and distal extremities. On the fifth day, after the initial onset of the cutaneous manifestation, the patient reported fatigue and developed a fever and a cough. The cutaneous lesions had shown a marked erythematous appearance with superficial desquamation associated with pruritus (Figure 1A). A nasopharyngeal swab and PCR test were performed and resulted positive for SARS-CoV-2. A diagnosis of PR in a COVID-19 patient was made. Treatment for the cutaneous lesions consisted of cetirizine 10 mg/day, a systemic steroid (prednisone 5 mg/day for the first 3 days and subsequent gradual reduction of the dosage) and a moisturizing cream. Paracetamol (3 g/day) was prescribed for the mild symptoms of COVID-19. The fever and cough disappeared 3 days after the onset of the symptoms, while after 10 days of treatment, a general improvement of the cutaneous lesions was observed (Figure 1B). After 30 days from the onset of systemic symptoms, a PCR nasopharyngeal swab was performed, resulting negative and without a relapse of systemic and cutaneous symptoms.

Compared with previous reports,¹⁻⁹ our case had shown the different phases of the evolution of the PR manifestation, highlighting how the cutaneous lesions during the acute phase of COVID-19 assumed a more erythematous and purpuric appearance, as indication of a general inflammatory state associated with the SARS-CoV-2 infection.

Of the cases reported in literature, in five articles,^{1,3,5,8,9} PR has been observed prior to the discovery of SARS-CoV-2 positivity; in these articles the PR cutaneous manifestations were already present and all reported cases were asymptomatic or pauci-symptomatic subjects. Congruently, the cutaneous manifestation of PR, could be an initial or prodromal symptom of a SARS-CoV-2 infection⁸; accordingly, during the pandemic, a careful medical history needs to be taken in patients with PR lesions to rule out an underlying SARS-CoV-2 infection. Contrariwise, further authors reported^{2,4,9} that when the cutaneous eruption onset occurs after a positive diagnosis of COVID-19 is



FIGURE 1 A, Onset of the cutaneous symptoms with a "herald patch," erythematous and scaly annular patch on the right breast. Five days later, generalized papular and plaque-type lesions occurred all over the trunk, with a "Christmas tree" like pattern, while the face and the distal part of the limbs were spared. *Insert*: simultaneously with increasing cutaneous lesions the patient developed fever, fatigue, and cough (SARS-CoV-2 positive). The individual skin lesions assumed a more erythematous and purpuric appearance with a fine central desquamation. Most likely these features were associated with the general inflammatory induced by SARS-CoV-2 infection. B, Systemic steroid treatment, systemic antihistamine, and a moisturizing cream accelerated the healing process of the cutaneous lesions. The systemic symptoms associated with SARS-CoV-2 (fever, fatigue, and cough) also healed after only 3 days

made, it is often associated with more systemic symptoms related to COVID-19.

PR is known to be a common and self-healing cutaneous manifestation that is associated with systemic active infection of both HHV-7 and HHV-6. In our patient's anamnesis, along with other exanthematous pathologies of childhood, roseola infantum (or sixth disease) was recorded, which is known to be caused by HHV-6 and HHV-7. Accordingly, in our case, as well as others reported in literature, SARS-CoV-2 might have played a trans-activating role, triggering HHV-6, HHV-7, and EBV reactivation and consequently causing PR.⁴

The presence of a benign course in all COVID-19 cases showing PR cutaneous lesions, reported in literature,¹⁻⁹ may be associated with the fact that PR occurs relatively at a young age (median 15-35 years) and commonly in women, both of which, are positive prognostic factors for the evolution of COVID-19.

Our evaluation shows how treatment of COVID-19-related PR, using a steroid therapy (associated with systemic antihistamine and topical moisturizing cream) may accelerate the PR healing process, at the same time, improving the clinical course associated with COVID-19. Lastly, we advocate that during the SARS-CoV-2 pandemic, telemedicine appointments play a very crucial and important role in supporting patients confined to their home.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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