

Cutaneous manifestation of COVID-19: A case report

COVID-19 cilt bulguları : Vaka sunumu

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ABSTRACT

COVID-19 disease caused by the novel coronavirus (SARS-CoV-2) results in several manifestations involving the lungs, upper respiratory tract, gastrointestinal tract, and hematological system. During the ongoing COVID-19 pandemic, skin lesions were observed. These lesions resolve rapidly on treatment with corticoid creams and antihistamines. In this report, we present a case of COVID-19 with cutaneous manifestations.

Keywords: COVID-19, skin, maculopapular lesion, SARS-CoV-2 infection

Öz

Yeni koronavirüsün (COVID-19) neden olduğu hastalık akciğerleri, üst solunum yollarını, gastrointestinal sistemi etkileyen ve hematolojik bozukluklar gibi birçok sistemik belirtisi vardır. Pandeminin gelişmesiyle birlikte cilt lezyonları da gözlemlendi. Bu lezyonlar kortikoid kremler ve antihistaminiklerle hızlıca gerilemektedir. Bu yazıda, cilt bulguları görülen bir COVID-19 olgusu sunmaktayız.

Anahtar Kelimeler: COVID-19; deri; makulopaapüler lezyon; SARS-CoV-2 enfeksiyonu

INTRODUCTION

The coronavirus disease (COVID-19) appeared first in China in patients presenting a form of pneumonia of unknown etiology, including other symptoms such as dry cough, sore throat, and diarrhea. The etiologic agent was identified as an RNA virus belonging to the *Coronaviridae* family and was later named SARS-CoV-2 (1).

Cutaneous manifestations that develop during the course of viral diseases are well defined, and these manifestations have diagnostic and prognostic value (2). Cutaneous lesions associated with COVID-19 infection (SARS-CoV-2) have begun to be reported in the literature worldwide during the ongoing pandemic (3).

In a study conducted by Recalcati et al. on 88 patients from Italy, cutaneous manifestations were observed in 18 patients (20.4%), which included erythematous rash (14 patients), urticaria (3 patients), and varicella-like vesicular exanthem (1 patient) (4).

With increasing number of cases worldwide, the diversity in the clinical manifestations of the disease has begun to be reported, with various cutaneous manifestations being observed in individuals with COVID-19 infection. In this report, a case of COVID-19 with cutaneous manifestations is presented.

CASE REPORT

A 14-year-old female patient was admitted in the emergency department of our hospital with complaints of fever of 38.5°C, cough, and weakness since 4 days prior to admission. The patient's mother and two brothers also complained of fatigue. Computed tomography of the patient's thorax revealed a 0.5 × 0.5 cm focal ground-glass opacity in the subpleural area of the left lung superior lobe, which was compatible with that of COVID-19 disease. Reverse transcription polymerase chain reaction (RT-PCR) analysis of the swab sample obtained from the oropharynx and nasopharynx of the patient revealed that the patient was SARS-CoV-2-positive (Delta mutation).

Paracetamol was given to the patient because she had fever. The patient and family history were unremarkable. On physical examination, diffuse, sharply demarcated, and erythematous macules and papules, which appeared to be confluent, were identified in the upper extremities (Figure 1). No findings were observed in the trunk, lower extremities, and mucous membranes. It was learned that the rash started appearing 3 days after the onset of fever.

Laboratory examinations revealed the following values: white blood cells 6.2 (4.5–11) K/ μ L, hemoglobin 16 (12–16) g/dl, lymphocytes 2.68 (0.60–3.40) K/ μ L, eosinophils 0.002 (0.0–0.7) K/ μ L, platelets 164000(150000-450000) K/ μ L, Lactate dehydrogenase 207 (0–247) U/L, sodium 141.8 (132–146) mmol/L, potassium 5.35 (3.5–5.5) mmol/L, calcium 9.42 (8.7–10.4) mg/dL, urea 25 (20–50) mg/dL, creatinine 0.73 (0.5–1.1) mg/dL, D-dimer 0.46 (<0.46) mg/L, ferritin 31.4 μ g/L, procalcitonin <0.01 (0–0.09) ng/ml, C-reactive protein <0.29 (0–0.8) mg/dl.

Diflucortolone valerate/chlorquinaldol cream was administered locally to the patient. The lesions disappeared on day 3 and RT-PCR test performed on day 10 revealed that the patient was SARS-CoV-2-negative.

Written consent was obtained from the patient's parents, indicating that the medical data could be published.



Figure 1. Diffuse, sharply demarcated, and erythematous macules and papules appearing to be confluent as observed in the patient's upper extremities

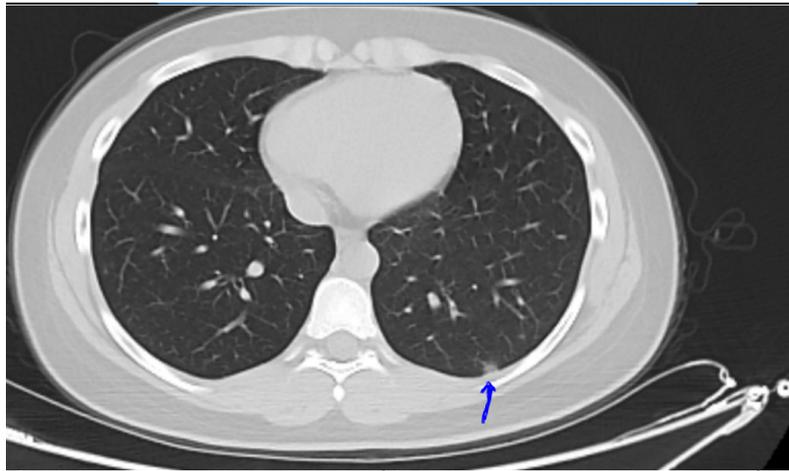


Figure 2. Focal ground-glass opacity of 0.5 × 0.5 cm in the subpleural area of the left lung superior lobe

DISCUSSION

The most common symptoms of COVID-19 disease are fever, cough, and shortness of breath; and cutaneous manifestations along with several different symptoms can also be observed (5). In a study that evaluated 140 patients with COVID-19 in Wuhan, the incidence of rash was reported as 1.4% (6).

The reported prevalence of cutaneous manifestations associated with COVID-19 varies globally; it is found to be 0.2% in China, 5.5%–7.25% in India, and 20.4% in Italy. The morphological characteristics of cutaneous manifestations in patients with COVID-19 also differ geographically (7).

A literature review on COVID-19 cutaneous manifestations by Sachdeva et al. reported that the most common cutaneous manifestation was maculopapular exanthema (morbilliform), presenting in 36.1% (26/72) patients. Other cutaneous manifestations presenting in patients reported in the review were as follows: papulovesicular rash 34.7% (25/72), urticaria 9.7% (7/72), painful acral red-purple papules 15.3% (11/72), livedo reticularis lesions 2.8% (2/72), and petechiae 1.4% (1/72). Skin lesions developed prior to the onset of respiratory symptoms or the diagnosis of COVID-19 in 12.5% (9/72) patients, and the lesions spontaneously resolved within 10 days in all patients. Most studies have not reported an association between the severity of COVID-19 and skin lesions (8).

Based on our findings and a review of the literature available, we assume that cutaneous manifestations, albeit in a low rate, may present in patients with COVID-19 without being associated with poor prognosis. Diagnosis is facilitated by the presence of other symptoms, patient history, and RT-PCR testing. Further studies are required to better understand the effects of COVID-19 on the skin.

BİLDİRİMLER

Ethical Declaration: Written consent was obtained from the patient's parents, indicating that the medical data could be published.

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Conflict of Interest: There is no conflict of interest.

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