CASE REPORT: CUTANEOUS MANIFESTATION IN A PATIENT WITH NOVEL CORONAVIRUS 2019 (COVID-19)

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Abstract

This case report describes a skin rash presented in a patient diagnosed with COVID-19. At the beginning of the COVID-19 pandemic in 2019, no skin involvement was initially observed, but more recent cases have been reported. (Marraha, 2020) Most of the cases were in Italy (eleven cases), Spain (nine cases), France (seven cases), and the United States (six cases). (Sameni, 2020) In a recent letter from Thailand, it was stated that almost all COVID-19 patients had cutaneous signs. (Wollina, 2020)

Permission to share the images and diagnostic information was provided to the author and the JCANPA editor. Names changes for Confidentiality.

Introduction

Since COVID-19 pandemic started in Wuhan city in Central China at the end of 2019, a total of 49,578,590 confirmed cases with 1,245,717 related deaths reported up to November, 2020. The virus was given an official name of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in February 2020.

Reports estimated that 70% of patients with the disease are asymptomatic or show very mild symptoms, while the remaining 30% show more severe symptoms with respiratory manifestation and extra pulmonary manifestations. Systemic complications such as sepsis, and septic shock have been reported. (1)

Cutaneous manifestations of COVID-19 have been poorly described in a limited number of case reports. The first report of COVID-19-related cutaneous manifestations by Recalcati showed that 18 from 88 COVID-positive patients (20.4%) developed skin lesions. The majority of these lesions were found on the trunk, hands and feet. (2).

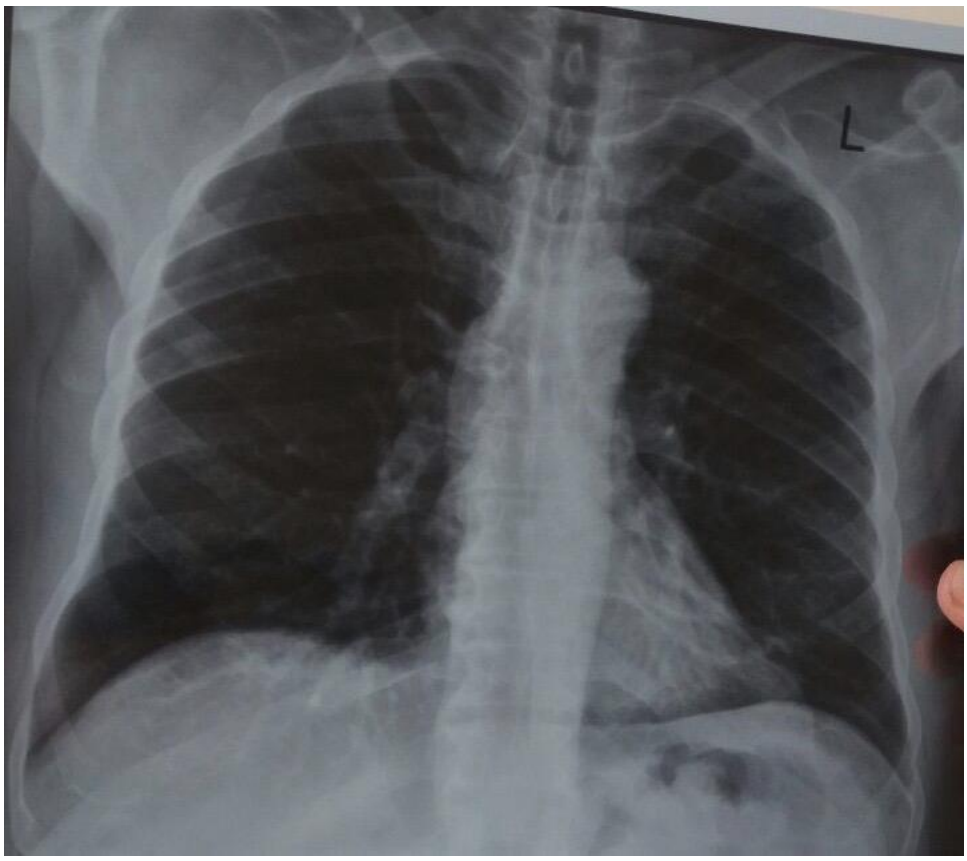
Data from an international registry of COVID-19 patients with dermatologic symptoms, showed those retiform purpura rashes are linked to severe COVID-19, with 100% of these patients requiring hospitalization and 82% experiencing acute Respiratory distress syndrome (ARDS). Pernio/chilblains rashes, also known as "COVID toes", are associated with milder disease.

For all COVID-related skin symptoms, the average duration is 12 days. (3) Acral lesions, urticarial rashes, vesicular rashes, erythematous maculopapular rashes, vascular lesions, and erythema multiform-like eruptions are the most commonly reported cutaneous symptoms of COVID-19. (4)
Another study showed five types: pseudochilblain, other vesicular, urticarial, maculopapular, and livedo or necrosis in patients with COVID-19. (5) Varicella-like papulovesicular exanthema have been reported during an Italian COVID-19 outbreak. (6)

Case Presentation

A 59 years old male presented with a sever sore throat and mild diarrhea. Sore throat lasted 4 days and diarrhea stopped after two days. No blood was reported in his stool. Patient started to experience sever fatigue, myalgia and dry cough one week later. No shortness of breath (SOB) was reported by the patient initially. He denied any fever, runny nose, recent travel or any exposure to a known positive COVID-19 case. Past medical history was positive for Depression and Hypertension. Meds: Escitalopram 10 mg, PO. OD, Captopril 50 mg, PO, OD. Patient did not have any history of drug allergies (NKDA). Throat swab was obtained for COVID-19, blood work and CXR were requested. He stayed at home on supportive management. Patient's blood work results and CXR were reported as below.

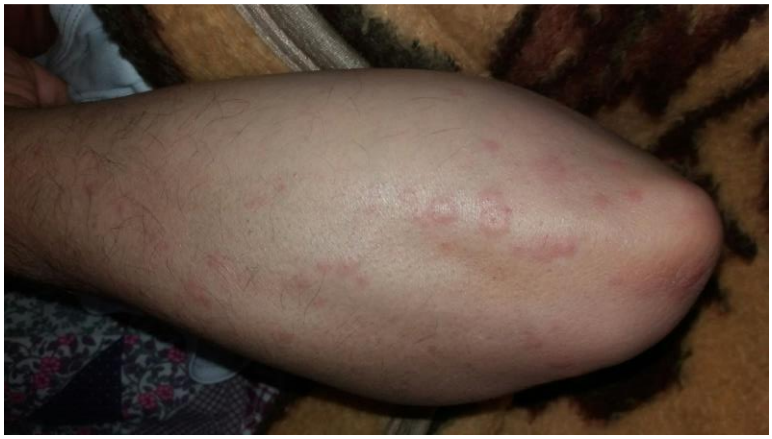
Table 1	Blood results		Ref	Diff
Hb	143	g/dl	120-160	Lymp 2.2
Hct	0.41	L/L	0.36-0.48	Mono 0.8
WBC	7.6	10^9/L	4-11	Eos 0.1
Plt	173	10^9/L	150-400	Baso 0.7
CRP	NEG			



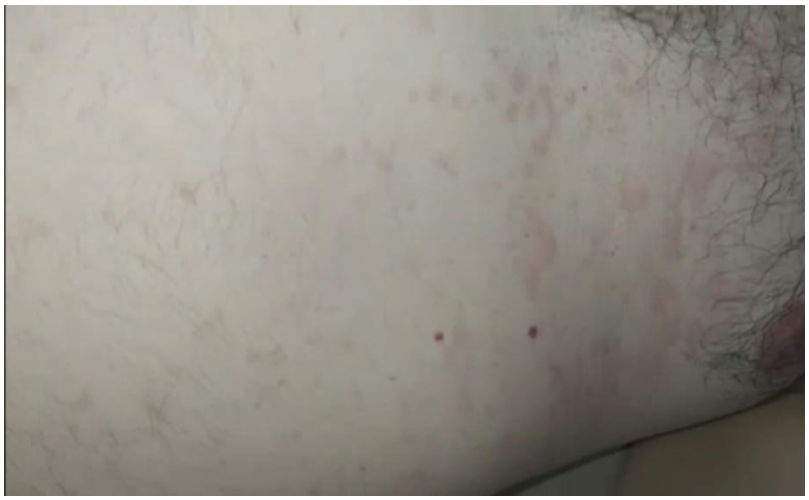
(Fig.1)

Erythema multiform-like eruptions began to develop on both legs (Fig. 2), and then was spread to his elbows, arms (Fig.3), trunk (Fig.4) and face in the second week of disease. Patient complained of severe pruritus. Furthermore, PCR test on a throat swab specimen was positive for COVID-19. The rash lasted 9 days and started to disappear in the same manner from the lower to the upper part of his body.

(Fig.2)



(Fig.3)



(Fig.4)

Patient's symptoms started to improve in the 3rd week of the disease. Dry, short and episodic cough continued up to 6th week, with mild SOB.

Discussion

Different skin manifestations related to COVID-19 have been reported since the pandemic began. Most of research studies focused on respiratory symptoms and subsequently ARDS treatment. Skin lesions were underestimated as PCR swabs are not performed on mild cases. Different pathophysiologic changes may be the underline cause of skin lesions in COVID-19 such as; immune dysregulation, vasculitis, vessel thrombosis or neoangiogenesis. (7)

Past medical history of patients and drug adverse reactions need to be considered before correlating skin manifestation to a COVID-19 infection. There are still many unanswered questions about COVID-19. Alternative causes should always to be considered in COVID-19 patients with cutaneous lesions.

More clinical data and research studies are needed to understand COVID-19.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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