

CASE REPORT

COVID Hands: A New Entity?

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ABSTRACT

Patient history: A 74-year-old Kuwaiti female with a background history of type 2 diabetes mellitus and hypertension presented to the Emergency Department at the Al Adan Hospital with a 4 days history of dry cough, shortness of breath, diarrhea, fatigue and headaches. An infection with COVID-19 was suspected, and a RT-PCR for SARS-CoV-2 RNA was conducted accordingly. The test result came back positive and the patient was admitted to hospital. One day after her admission, and around 5 days since the onset of her disease, the patient developed pernio-like lesions on both her hands. The patient had no history of smoking or alcohol consumption and no history of drug allergies. There is no family nor a personal history of skin diseases.

Clinical appearance: There were a symmetrically distributed erythematous macules on the palmar aspect of the patient's hands and distal fingers. oedema were also noted.

KEY WORDS: COVID-19, Chilblains, Pseudo-chilblains, COVID Toes

INTRODUCTION

Several studies have been carried out to explore the nature of cutaneous eruptions that have been observed in COVID-19 patients. A Chinese study on 1099 patients diagnosed with COVID-19 reported the incidence of skin lesions in 0.2% of the patients.¹ Furthermore, a report from medical professionals in the Lombardy region of Italy demonstrated that 18/88 patients diagnosed with COVID-19 were observed to have cutaneous eruptions as follows: erythematous rash, systemic urticaria and vesicles that were chickenpox-like in nature.² Also, a prospective analysis of clinical pathology images of the cutaneous manifestations in 375 patients afflicted with COVID-19 in Spain revealed five clinical

pathological patterns: Maculopapular, urticarial, acral areas of erythema consisting of vesicles or pustules (classified as pseudo-chilblains), vesiculobullous and livedo or necrosis.³ Out of the five previously mentioned patterns, pseudo-chilblains stand out and correlate with our patient's history and clinical examination.

CASE REPORT

A 74-year-old Kuwaiti female with a background history of type 2 diabetes mellitus and hypertension presented to the Emergency Department at the Al Adan Hospital with a 4 days history of dry cough, shortness of breath, diarrhea, lethargy and headaches. An infection with COVID-19 was suspected, and a RT-PCR for SARS-CoV-2

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RNA was conducted accordingly. The test result came back positive and the patient was admitted to hospital. One day after her admission, and around 5 days since the onset of her disease, the patient developed pernio-like lesions on both her hands (Fig. 1). The patient had no history of smoking or alcohol consumption and no history of drug allergies. There is no family or a personal history of skin diseases.

On examination there were a symmetrically distributed erythematous macules on the palmar aspect of the patient's hands and distal fingers (Fig. 2). Petechiae were also noted (Fig. 3). Although, the patient did not report pruritus, the lesions were extremely painful and there was associated swelling.



Fig. 1 Multiple symmetrically distributed erythematous macules with associated swelling.



Fig. 2 A close up look at the patient's skin lesions. Note that the peripheries of the palm and fingers are mainly involved.



Fig. 3 Scattered petechiae.

DISCUSSION

Chilblains are characterized by the presence of single or multiple edematous, erythematous-violaceous macules that are symmetrically distributed in affected areas. In severe cases, blistering and ulcers may appear at affected sites. The pathogenesis of COVID-19 related chilblains is unknown and it has been hypothesized that an abnormal immune response might be responsible for the onset of this particular skin lesion.⁴ The principal site of involvement of COVID-19 related chilblains is the feet, toes in particular being more involved (thus the term COVID toes), with the hands being rarely involved.^{3, 5}

The case presented here highlights the fact that even though COVID-19 associated chilblains have been frequently observed to develop in the feet/toes, it can also occur in the hands of infected individuals, despite being rare. A small number of reports in the literature have described COVID-19 associated chilblains in the hands. For instance, a study aimed at the analysis of cutaneous lesions present in COVID-19 patients showed the presence of acral areas of erythema-oedema and the presence of pustules and vesicles that were asymmetrically located in the toes as well as the hands of patients³ depending on the timing in relation to symptoms of the disease, and the severity. Another study aimed at determining the

incidence of chilblains in 63 patients diagnosed with COVID-19 demonstrated that the majority of the patients (87%) displayed the presence of chilblains, with the feet being the most affected followed by the feet and hands together (7%) or the hands alone (6%).⁶ Also, two Kuwaiti females, that had previously travelled to the United Kingdom, were diagnosed with COVID-19 and the only clinical presentation of symptoms was the presence of chilblains on their fingers.⁷

CONCLUSION

The term COVID toes has gained wide recognition as the clinical presentation of the disease. Although COVID-19 associated chilblains most often present in the lower extremities, still, pseudo-chilblains are being observed in rare instances in the hands as well. It would therefore be more appropriate to distinguish COVID-19 associated chilblains which arise in the hands using a more distinct term.

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