

COVID-19 Pandemic: The Associated Skin Conditions

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Abstract

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Original Manuscript

COVID-19 Pandemic: The Associated Skin Conditions

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Dear Editor

The healthcare providers around the world are reporting that some of the COVID-19 patients develop skin rashes. "COVID-toes" is name given to the most common skin condition found among the COVID-19 patients. New researches reveals that COVID-19 virus can also cause frostbite-like patches on the hands and toes, and rashes on the body (among both children & adults). Although the skin conditions are not so serious and the lesions usually disappear on their own. Most of these skin conditions are observationally reported, there is no clear evidence that shows those rashes are symptoms of COVID-19. There is no health agency (such as CDC, or WHO) that now lists skin rash as a symptom of COVID-19 [1]. A Chinese study among more than 1000 COVID-19 patients reported skin rashes among only 0.2%, however 20.4 was reported in Italy [2, 3]. Presence of rashes in viral infections is not a new issue; measles, chickenpox and herpes are examples of viral infections with distinctive rashes. COVID-19 could also generate a similar skin reaction in some patients. A study conducted by a group of Spanish researchers described 5-different categories of rashes among COVID-19 patients [1]:

- A COVID toes (a rash on the hands or feet that resembles chilblains)
- A blistery rash (a rash on the abdomen, back, arms or legs)
- A hives-like rash (a slightly elevated reddish or white patches on the skin)
- A maculopapular rash (a small reddish bumps on a flat, reddish patch of skin)
- Livedo or necrosis (a rash characterized by purplish skin with a lace-like pattern)

Another recent published research reported two additional skin conditions that may be associated with COVID-19 [1]:

- A petechiae (tiny purple, red or brown spots) and
- A digitate papulosquamous (scaly rash)

Many researchers across the globe believed that the rashes may be caused by an immune response to the virus. In some patients the rashes were reported to normally disappear after some days as stated by many researchers [4]. Currently, researchers around the world have started thinking that skin rash might be another symptom of COVID-19. A report from Italy reveals that about 20% developed skin symptoms among 88 COVID-19 positive patients and slightly above half of them developing it after hospitalization [3]. American Academy of Dermatology (AAD) recorded more than 100 cases of the conditions in COVID-19 patients. Now, the dermatologists around the world have started gathering information on what may be largely overlooked symptoms of COVID-19: skin conditions ranging from rashes to “pseudo-frostbite [5].

It was reported that some skin problems are associated with the use of personal protective equipment (PPE) and personal hygiene measures. The skin complications in COVID-19 infection are expected to be as a result of hyper-hydration effect of PPE, friction, epidermal barrier breakdown, and contact reactions, all of which may aggravate an existing skin disease. The most commonly affected skin sites were the nasal bridge (due to the use of protective goggles), hands, cheeks and forehead. The use of protective hats, long-term use of protective gloves, exaggerated hand washing with detergents or disinfectants, and prolonged contact with masks and goggles may cause a variety of cutaneous diseases. However dermatologists recommends the use of preventive measures, including emollients, barrier creams, and moisturizers to prevent skin complications aggravated by preventive measures during the COVID-19 crisis [6]. The presence of rash on skin may be the symptom of COVID-19, the clinicians should be aware until more is known. Healthcare workers should also treat the rash symptoms as needed in order to keep the patient comfortable.

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