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Severe Scabies after COVID-19: A Case Report

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ABSTRACT

Scabies is defined as a pruritic skin condition caused by an infestation of itch mite *Sarcoptes scabiei* that is exceptionally contagious; however, there is no exact figure on its prevalence. A six-year-old girl was presented to the Dermatology department of Zahid Maiwand clinic in Kandahar City, Afghanistan. The chief complaint of patient was severe itch at night and rashes on the skin. The skin lesions were "face and body papules, papulovesicles, pustules, nodules, and seborrhea for 15 days" in May of 2020. Ten days ago, the girl was diagnosed as COVID-19 after a PCR test; the patient's fever and body aches were slowly subsiding while the rash started to appear; it was extremely itchy at night; after taking a complete history. It was found that other family members were also showing scabies symptoms such as itching at night and small burrow type skin lesions. We referred the patient for a microscopic examination of some lesions to look for mites and burrows.

1. Introduction

COVID-19 is a disease caused by a coronavirus, which has led to a pandemic in 2020. It affects the respiratory system, mainly causing fever, body aches, loss of smell, and in severe cases, hypoxia; scabies is a pruritic skin condition caused by *Sarcoptes scabiei*, scabies shows severe symptoms in immunocompromised patients. Mainly, Relationship between COVID-19 and skin conditions is not defined well until now, but some reports have been published on COVID-19 patients having skin lesions such as chill blains.^[1] The increase in social anxiety and stress and the negative impact on the quality of life caused by the COVID-19 pandemic may explain the proportional increase in scabies' diseases.^[2]

2. Case presentation

A 6-year-old girl presented to our clinic with chief complaints of severe itching at night, after careful examination whole body was covered with grain-sized papules and papulovesicles; after taking complete history, the patient had a history of fever, body aches, loss of smell and weakness ten days ago. The patient at that time was referred to a central laboratory for doing a PCR test for COVID-19, we demanded the results of PCR test which was positive, family history of the patient showed some members had severe itching at night however they didn't have severe symptoms as the patient, we referred the patient for microscopic examination for Mites, the result was positive (Figure 1). Trunk and limbs showed large numbers of grain size red papules, papulovesicles, pustules surrounded by inflammatory redness and flushing, partial surfaces of the lesions are covered with seborrhea; the whole body is

covered with light red nodules small grains to bean size, the lesions are mostly symmetrical, some parts of the lesions have mud like changes and pigmentation. (Figures 2-3).

Treatment: After taking a bath with hot water and soap, applied 5% sulfur ointment to the entire body from the neck down and rubbed in gently twice daily for one week, in the meantime, all clothes, especially clothes that were in touch to the skin were washed in boiling water for 30 minutes, Family members living in the same house took protective measure. The skin lesions such as erosions, exudative lesions, and pustules were treated with an antiseptic solution, which has anti-inflammatory characteristics (wet dressing using six layers of medical gauze for ten minutes each time) and then applied topical compound polymyxin B ointment twice daily. After two weeks of treatment, most of the lesions disappeared. (Figure 4). Papulovesicles on the left hand were positive for mite *Sarcoptes scabiei*, eventually diagnosed as scabies.

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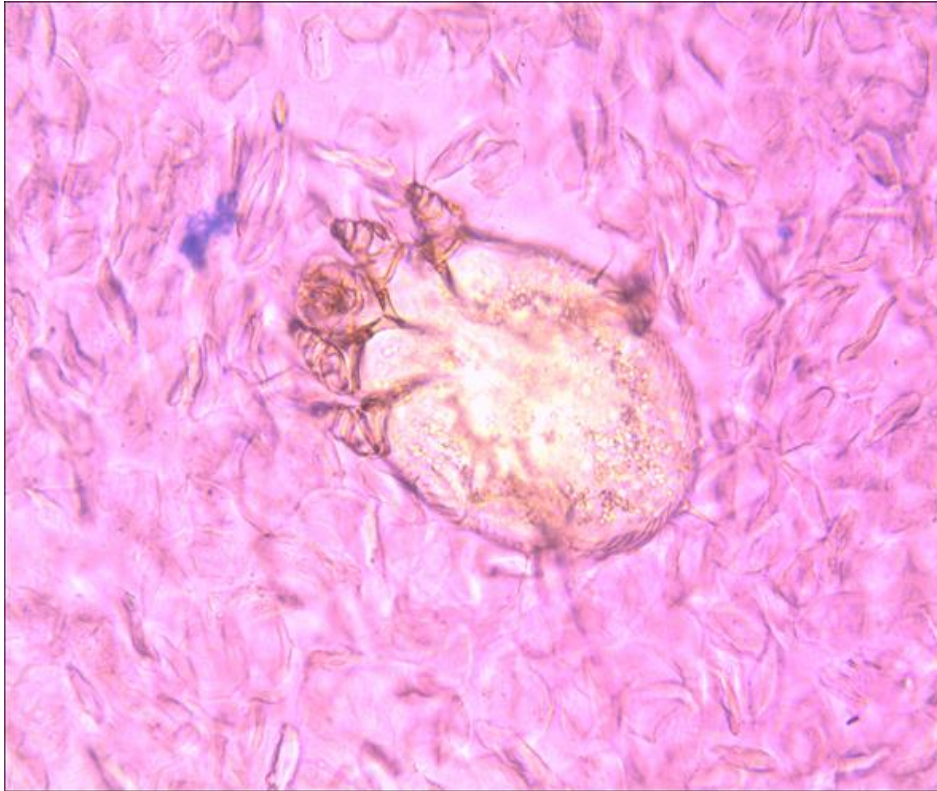


Figure 1. mites seen under light microscope 40X.



Figure 2. Pustules and papulovesicles on hands.



Figure 3. Trunk having grain-sized papules and depigmentation.



Figure 4. After two weeks of treatment with sulfur and permethrin 5%, most lesions have disappeared.

3. Discussion

COVID-19 have been linked to a number of other systemic diseases or symptoms, recently there have been reports and cases in some European countries of skin manifestations in patients with COVID-19, however most of these patients have mild symptoms of COVID-19 thus presenting to dermatologist for dermatological symptoms solely^[3]. The patient in our case was no exception, presented with severe unusual crusted scabies having fever, body aches and loss of smell, thus we suspected the patient to be COVID-19. The patient had been to a specialist of internal medicine and was prescribed Ceftriaxone 500 mg Injections with prednisone 1mg/kg, which had subsided her fever and body aches but some days later developed an itchy rash. The rash would get worse at night, After taking a complete family history, some of the family members, who did not have any symptoms of COVID-19 thus

they never tested for COVID-19, had scabies like symptoms which lead us to microscopic examination of the lesions on her hand, eventually leading us to the final diagnosis. The relationship between scabies and COVID-19 is unknown, but patients presenting with a wide variety of symptoms during this pandemic is alarming; reports have been published on herpetic lesions appearing on some patients after COVID-19, which can be a sign of COVID-19 also affecting the immune system leading to diseases which are solely seen in immunocompromised patients such herpes zoster and scabies, thus any patient having COVID-19 like symptoms and skin manifestations should undergo a PCR testing, isolated from the general population as soon as possible.^[4-5]

4. Conclusion

There have been no reports on the association of scabies and Covid-19; larger studies need to be published for an exact relationship of these two diseases; we want to alert clinicians in south Asia, particularly to this scabies presentation of younger patients.

Conflict of Interest

The authors declared that there is no conflict of interest.

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