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Dermatological Patterns In Patients During The Post-Covid Period

R.A. Oripov
Samarkand State Medical University, Uzbekistan

G.K. Ismailova
Siab Medical College of Public Health named after Abu Ali ibn Sina, Uzbekistan

Z.M. Abdiyev
Lecturer at Suzangaran Medical College of Public Health, Uzbekistan

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Abstract: At the beginning of the pandemic, dermatological changes were rarely documented, possibly due to the lack of conditions for conducting a full skin examination; subsequent studies showed a significantly greater number of cases of skin lesions and the emergence of dermatological manifestations. The true cause of dermatological changes after a previous coronavirus infection, the uncertainty as to whether they appear in connection with the direct effect of the infection or are associated with systemic diseases (for example, reactive or drug-induced), and how best to manage them, are pressing issues that complicate the understanding of these dermatological conditions.

Keywords: Dermatological disease, skin, pandemic, coronavirus infection, cutaneous manifestations, immunology.

INTRODUCTION:

Worldwide, the COVID-19 pandemic has led to a serious healthcare system crisis, and preventing its consequences has become a pressing issue. According to the World Health Organization (WHO), "... In December 2019, a coronavirus infection diagnosed in the population of the People's Republic of China, Hubei Province, Wuhan, and rapidly spreading across the globe, still remains one of the urgent public health problems. As of 31 July 2021, 198,165,746 cases of coronavirus infection had been recorded worldwide, of which 4,227,760 people died...". "... In the Republic of Uzbekistan during the pandemic period, 129,327 cases of COVID-19 were recorded, of which 874 people died...". The increase in the incidence of coronavirus infection, the course of this disease with various clinical manifestations, and especially the insufficient study of the pathogenetic mechanisms of dermatological changes after coronavirus infection, require scientific research on the microelement status as well as the immune status in patients with dermatological changes after coronavirus infection.

Dermatological manifestations of COVID-19 have been described in a limited number of publications and are mainly presented as case series. The first report on skin changes associated with COVID-19 was presented by Italian researchers; the results of this study documented that 18 (20.4%) out of 88 patients with COVID developed skin lesions (Recalcati et al., 2020). The study by Italian authors in 88 patients with COVID-19 showed that 20.4% of patients had cutaneous manifestations in the form of erythematous eruptions, urticaria and varicella-like vesicles, mainly on the trunk, with mild or no pruritus. In addition, the authors reported that these skin lesions did not correlate with disease severity. At the same time, it was reported that patients with COVID-19 may present with urticaria without any respiratory

symptoms (cough or fever) (Henry et al., 2020).

In recent years, attention has been paid to the pathogenesis of dermatological changes after a previous coronavirus infection. The true cause of dermatological changes, the uncertainty as to whether they appear in connection with the direct effect of the infection or are associated with systemic diseases (for example, reactive or drug-induced), and how best to manage them is a current problem that complicates the understanding of these dermatological manifestations (N.A. Belyakov, 2020).

Research objective: to identify patients with dermatological manifestations after recovering from coronavirus infection by determining the characteristics of their clinical course as well as microelement and immune alterations.

METHODS

In our scientific investigation, we examined 108 patients who had recovered from coronavirus infection; among them, 61 patients had dermatological manifestations. These patients sought medical care at the Samarkand Regional Dermatovenerological Dispensary from June 2020 to July 2021.

Research results: The main group consisted of 61 (44.0%) patients who exhibited dermatological manifestations, while the comparison group included 47 (34.0%) patients without dermatological manifestations. All of the aforementioned patients had experienced coronavirus infection (COVID-19) and were in a post-COVID condition. The control group consisted of 30 (22%) practically healthy volunteers.

To date, the following forms of dermatological changes associated with COVID-19 (SARS-CoV-2) have been described: cutaneous vasculitis (papulonecrotic, polymorphic-dermal, hemorrhagic, livedo), acrodermatitis, papulovesicular eruptions, papulosquamous eruptions (including pityriasis rosea of Gibert), measles-like rash, and toxicoderma. We do not exclude the possibility that some dermatological manifestations may occur as a reaction to treatment (antiviral drugs, hydroxychloroquine use, anticoagulant therapy, etc.).

As previously noted, among 108 (100.0%) patients who had recovered from coronavirus infection, 47 (43.5%) showed no dermatological manifestations, while 61 (56.5%) exhibited dermatological manifestations of various forms.

We identified the following dermatological manifestations after coronavirus infection:

- Hair loss in 30 (49.2%) patients, including alopecia areata in 15 (13.9%) and diffuse alopecia in 15 (13.9%);
- Papulosquamous eruptions in 9 (14.7%) patients, including psoriasis in 5 (4.6%), lichen planus (LP) in 2 (1.9%), and pityriasis rosea of Gibert in 2 (1.9%);
- Urticarial eruptions (urticaria) in 7 (11.5%) patients;
- Vasculitis-type eruptions in 6 (9.8%) patients — acrodermatitis in 2 (1.9%), polymorphic dermal vasculitis in 2 (1.9%), and papulonodular vasculitis in 2 (1.9%);
- Papulovesicular eruptions in 5 (8.2%) patients — allergic dermatitis in 3 (2.8%) and eczema in 2 (1.9%);
- Vesicular eruptions of the herpes type in 4 (6.6%) patients — herpes simplex in 2 (1.9%) and herpes zoster in 2 (1.9%).

In the clinical course of dermatological manifestations after coronavirus infection, we observed the following features.

In the post-COVID period, vesicular elements of the herpes type appeared, which were mainly characterized by atypical localization in the lip area, sometimes bilateral, with no tendency to recurrence and painless.

Whereas in herpes simplex, painful vesicular elements grouped on an erythematous background are localized around the nose, mouth and conjunctiva in herpes simplex, and in the area of the lower ribs in the form of a broad band on one side of the body in herpes zoster, patients experience pain and burning.

Papulovesicular eruptions after coronavirus infection were widespread, with atypical localization on the sternum, abdomen and back, and erosive papules were observed. In contrast, in allergic dermatitis and eczema in patients who had not had coronavirus infection, the elements were more often localized on the extremities and were accompanied by severe itching.

In urticaria, the typical morphological element in the form of wheals appears rapidly and usually resolves within 20–30 minutes; however, in our study we found that the urticarial elements had an atypical course, were persistent, and presented as a prolonged, widespread process.

Patterns of post-COVID eruptions of the acrodermatitis type were very rare in our study and were observed in 2 (1.9%) patients. They were characterized by the appearance on the skin of the

feet and fingers of the hands of pruritic papules with acral localization, reddish-purple in color, which transformed into hemorrhagic blisters with the formation of burgundy-black crusts, whereas in classic acrodermatitis the eruptions mainly affect the nail phalanges of the fingers and toes. The primary element consists of small oval pustules that appear symmetrically.

CONCLUSIONS

In the overwhelming majority of cases, alopecia areata was observed in 15 (13.9%) patients, followed by diffuse alopecia in 15 (13.9%). In addition, there were differences in the degree and localization of lesions depending on sex. In women, alopecic foci were observed in the occipital and temporal regions, while in men they were located in the parietal and temporal regions.

In patients who previously suffered from skin diseases, progression of dermatoses such as psoriasis was noted after coronavirus infection, whereas the course of other dermatoses did not differ from that in patients with previously intact skin.

REFERENCES

1. Беляков Н.А., Рассохин В.В., Ястребова Е.Б. Коронавирусная инфекция COVID-19. Природа вируса, патогенез, клинические проявления. Сообщение. ВИЧ-инфекция и иммуносупрессии. 2020;12(1):с.7-21.
2. Дворников А.А., Силин А.А., Гайдина Т.А. Кожные проявления при коронавирусной болезни 2019 года (COVID-19) Архив внутренней медицины 2020 10 (6): с.422-429
3. Костинов М.П., Маркелова Е.В., Свитич О.А., Полищук В.Б. Иммунные механизмы SARS-CoV-2 и потенциальные препараты для профилактики и лечения COVID-19. Пульмонология. 2020;30(5):с.700-708.
4. Кутырев В.В., Попова А.Ю., Смоленский В.Ю., Ежлова Е.Б., Демина Ю.В., Сафронов В.А., Карнаухов И.Г., Иванова А.В., Щербакова С.А. Эпидемиологические особенности новой коронавирусной инфекции (COVID-19). Сообщение 1: Модели реализации профилактических и противоэпидемических мероприятий. Проблемы особо опасных инфекций. 2020; 1:с.6-13.
5. Кутырев В.В., Попова А.Ю., Смоленский В.Ю., Ежлова Е.Б., Демина Ю.В., Сафронов В.А., Карнаухов И.Г., Иванова А.В., Щербакова С.А. Эпидемиологические особенности новой коронавирусной инфекции (COVID-19). Сообщение 2: особенности течения эпидемического процесса COVID-19 во взаимосвязи с проводимыми противоэпидемическими мероприятиям и в мире и Российской Федерации. Проблемы особо опасных инфекций. 2020;(2):с.6-12.
6. Курбанов Б.Ж., Анварова Л.У. Анализ эпидемиологической ситуации по новой коронавирусной инфекции (COVID-19) в Республике Узбекистан. Новости дерматовенерологии и репродуктивного здоровья 2021 №1-2 с. 93-94.
7. Муминов Д. К. Ранняя реабилитация больных после COVID-19 инфекции (клиник-патогенетические и терапевтические аспекты): дисс. д-ра мед.наук. – Ташкент, 2021. – 213 с.