

10.

DERMATOLOGY

CHAPTER

PIGMENTED PURPURIC DERMATOSIS ASSOCIATED WITH NOVEL 2019 CORONAVIRUS SARS-COV-2 INFECTION

Ceyda ÇAYTEMEL¹

BACKGROUND

Coronavirus disease (COVID-19) is an illness caused by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2), which was first reported in Wuhan, China in late 2019. The disease, which spread all over the world in a short time, was declared as a pandemic by the World Health Organization on March 11, 2020 (1). The most common symptoms are fever, cough, headache, myalgia, nausea, and diarrhea. Although respiratory and gastrointestinal symptoms are common, other organ systems are also affected.

Skin lesions associated with COVID-19 have been reported with an increasing frequency since the first day of infection. Skin symptoms associated with COVID-19 may be directly related to infection or secondary eczema due to used hygiene products, pressure-related skin lesions associated with personal protective equipment, and drug-related eruptions.

Numerous skin lesions thought to be associated with COVID-19 have been described. However, none of them is specific for COVID-19. Eczematous maculopapular rash, urticarial rash, vesicular rash, acral chilblain lesions, erythema-multiforme-like rash, pityriasis rosea-like rash, vascular rash are among those reported (2).

¹ MD, Dermatologist, Istanbul Basaksehir Cam and Sakura City Hospital, Department of Dermatology E-mail: ceydacaytemel@gmail.com

REFERENCES

1. Gottlieb M, Long B. Dermatologic manifestations and complications of COVID-19. *Am J Emerg Med.* 2020;38:1725–1721.
2. Tang K, Wang Y, Zhang H, Zheng Q, Fang R, Sun Q. Cutaneous manifestations of the Coronavirus Disease 2019 (COVID-19): A brief review. *Dermatol Ther.* 2020;33(4):1–7.
3. Huang YK, Lin CK, Wu YH, Georgala S, Katoulis AC, Symeonidou S, vd. Pigmented Purpuric Dermatitis: A Review of the Literature. *J Eur Acad Dermatology Venereol* [Internet]. 2003;207(2):297–300. Available at: <http://dx.doi.org/10.1080/09546634.2018.1473553>
4. Martínez Pallás I, Conejero del Mazo R, Lezcano Biosca V. Pigmented Purpuric Dermatitis: A Review of the Literature. *Actas Dermosifiliogr.* 2020;(xx).
5. Bouaziz JD, Duong TA, Jachiet M, Velter C, Lestang P, Cassius C, et al. Vascular skin symptoms in COVID-19: a French observational study. *J Eur Acad Dermatology Venereol.* 2020;34(9):451–2.
6. Daneshgaran G, Dubin DP, Gould DJ. Cutaneous Manifestations of COVID-19: An Evidence-Based Review. *Am J Clin Dermatol* [Internet]. 2020;21(5):627–39. Available at: <https://doi.org/10.1007/s40257-020-00558-4>
7. Gisondi P, Piaserico S, Bordin C, Alaibac M, Girolomoni G, Naldi L. Cutaneous manifestations of SARS-CoV-2 infection: a clinical update. *J Eur Acad Dermatology Venereol.* 2020;
8. Galván Casas C, Català A, Carretero Hernández G, Rodríguez-Jiménez P, Fernández-Nieto D, Rodríguez-Villa Lario A, et al. Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. *Br J Dermatol.* 2020;183(1):71–7.
9. Zhang H, Penninger JM, Li Y, Zhong N, Slutsky AS. Angiotensin-converting enzyme 2 (ACE2) as a SARS-CoV-2 receptor: molecular mechanisms and potential therapeutic target. *Intensive Care Med.* Nisan 2020;46(4):586–90.
10. Hamming I, Timens W, Bulthuis MLC, Lely AT, Navis GJ, van Goor H. Tissue distribution of ACE2 protein, the functional receptor for SARS coronavirus. A first step in understanding SARS pathogenesis. *J Pathol.* 2004;203(2):631–7.
11. Bandhala Rajan M, Kumar-M P, Bhardwaj A. The trend of cutaneous lesions during COVID-19 pandemic: lessons from a meta-analysis and systematic review. *Int J Dermatol.* 2020;
12. Georgala S, Katoulis AC, Symeonidou S, Georgala C, Vayopoulos G. Persistent pigmented purpuric eruption associated with mycosis fungoides: A case report and review of the literature. *J Eur Acad Dermatology Venereol.* 2001;15(1):62–4.
13. Huang YK, Lin CK, Wu YH. The pathological spectrum and clinical correlation of pigmented purpuric dermatosis—A retrospective review of 107 cases. *J Cutan Pathol.* 2018;45(5):325–32.
14. Sardana K, Sarkar R, Sehgal VN. Pigmented purpuric dermatoses: An overview. *Int J Dermatol.* 2004;43(7):482–8.
15. Plachouri KM, Florou V, Georgiou S. Therapeutic strategies for pigmented purpuric dermatoses: a systematic literature review. *J Dermatolog Treat.* 2019;30(2):105–9.
16. Gottlieb M, Long B, Mayor-Ibarguren A, Feito-Rodríguez M, Quintana Castanedo L, Ruiz-Bravo E, vd. Cutaneous manifestations of COVID-19: Report of three cases and a review of literature. *J Eur Acad Dermatology Venereol.* 2020;34(5):0–3.
17. Kaya G, Kaya A, Saurat J-H. Clinical and Histopathological Features and Potential Pathological Mechanisms of Skin Lesions in COVID-19: Review of the Literature. *Dermatopathology.* 2020;7(1):3–16.
18. Bologna Jean L, Schaffer J V, Cerroni L. *Dermatology.* 2017. 322–323 s.
19. Carlson JA, Cavaliere LE, Grant-Kels JM. Cutaneous vasculitis: diagnosis and management. *Clin Dermatol.* 2006;24(5):414–29.
20. Martinez-Lopez A, Cuenca-Barrales C, Montero-Vilchez T, Molina-Leyva A, Arias-Santiago S. Review of adverse cutaneous reactions of pharmacologic interventions for COVID-19: A guide for the dermatologist. *J Am Acad Dermatol.* 2020;0190-9622(20):32358-6
21. Yung A, Goulden V. Pigmented purpuric dermatosis (capillaritis) induced by bezafibrate. *C. 53, Journal of the American Academy of Dermatology.* 2005;53:168–9.