5.

DERMATOLOGY

CHAPTER

PURPURIC PITYRIASIS ROSEA ASSOCIATED WITH COVID-19

Şenay AĞIRGÖL¹

BACKROUND

Coronavirus disease-2019 (COVID-19) has started in December 2019 and still seriously affects the world (1). It was declared as a pandemic by the World Health Organization (WHO) on March 11, 2020 (2). It was affected almost all of the world in a short time presenting with interstitial pneumonia, severe respiratory failure and subsequent multiple deaths. Apart from the respiratory system, hematologic, cardiovascular, renal, gastrointestinal, hepatobiliary, endocrinologic, neurologic, ophthalmologic, and dermatologic systems can also be affected (3). Data on COVID-19 skin involvement are increasing and virus-specific skin manifestations are attempted to be detected. Recognition of skin manifestations can make it easier to identify asymptomatic patients (4, 5).

Among the skin manifestations that are observed along with COVID-19, acro-cutaneous (pernio or chilblain-like) lesions and maculopapular rash are reported as the most common finding (6). Apart from these, classification has been made according to their morphologies such as vesicular lesions, livedoid and/or necrotic lesions and urticarial lesions. Pityriasis-like rashes are included in the maculopapular group (7).

MD, Dermatologist, Istanbul Basaksehir Cam and Sakura City Hospital, Department of Dermatology Email: senayagirgol@hotmail.com

CONCLUSION

There has been an increase in pityriasis rosea disease during the COVID-19 pandemic. Holistic approach to pityriasis rosea cases developed after COVID-19 infection important. Including dermatological and histopathological manifestations, questioning the patients about other viral factors and using appropriate tests are the part of this approach. We think that these methods will contribute to the enlightenment of both PR and COVID-19 pathophysiology.

TAKE HOME MESSAGES

*Pityriasis rosea cases increased during the pandemic period. The history of COVID-19 in these cases should be carefully examined in terms of other PR etiologies. Patients may be asked to examine in terms of EBV, HHV-6-7.

*These data may be a guide on both the clinical presentation of coronavirus and the etiopathogenesis of PR disease.

DIFFERANTIAL DIAGNOSIS WITH MOST COMMON CAUSES

A viral etiology for PR has been hypothesized but not clearly defined. Infections, drug reactions, atopy, psychogenic disturbances, and autoimmunity are suggested causes, Upper respiratory tract infections that precede pityriasis rosea suggest the role of *Streptococcus*. Recently, reactivation of latent Human Herpesvirus-6 and Human Herpesvirus-7 infection have been found as the possible etiologic agents (10, 22, 23).

Pityriasis rosea-like eruptions have been reported after vaccinations such as Bacillus Calmette-Guerin (BCG), influenza, H1N1, diphtheria, smallpox, hepatitis B, and *Pneumococcus*.

Eruptions have also been detected with drugs such as gold, captopril, barbiturates, D-penicillamine, and clonidine, angiotensin-converting enzyme inhibitors, hydrochlorothiazide, metronidazole, allopurinol, and nimesulide (10, 24, 25).

REFERENCES

- 1. Phelan AL, Katz R, Gostin LO. The Novel Coronavirus Originating in Wuhan, China: Challenges for Global Health Governance. JAMA. 2020;323(8):709-10.
- Cucinotta D, Vanelli M. WHO Declares COVID-19 a Pandemic. Acta Biomed. 2020;91(1):157-60.
- 3. Gupta A, Madhavan MV, Sehgal K, Nair N, Mahajan S, Sehrawat TS, et al. Extrapulmonary manifestations of COVID-19. Nat Med. 2020;26(7):1017-32.
- 4. Daneshgaran G, Dubin DP, Gould DJ. Cutaneous Manifestations of COVID-19: An Eviden-

- ce-Based Review. Am J Clin Dermatol. 2020;21(5):627-39.
- 5. Marraha F, Al Faker I, Gallouj S. A Review of the Dermatological Manifestations of Coronavirus Disease 2019 (COVID-19). Dermatol Res Pract. 2020;2020:9360476.
- Jia JL, Kamceva M, Rao SA, Linos E. Cutaneous manifestations of COVID-19: A preliminary review. J Am Acad Dermatol. 2020;83(2):687-90.
- Galvan Casas C, Catala A, Carretero Hernandez G, Rodriguez-Jimenez P, Fernandez-Nieto D, Rodriguez-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.
- 8. Kilinc F, Akbas A, Sener S, Aktas A. Atypical pityriasis rosea: clinical evaluation of 27 patients. Cutan Ocul Toxicol. 2017;36(2):157-62.
- Drago F, Ciccarese G, Rebora A, Broccolo F, Parodi A. Pityriasis Rosea: A Comprehensive Classification. Dermatology. 2016;232(4):431-7.
- 10. Recalcati S. Cutaneous manifestations in COVID-19: a first perspective. J Eur Acad Dermatol Venereol. 2020;34(5):e212-e3.
- 11. Sanchez A, Sohier P, Benghanem S, L'Honneur AS, Rozenberg F, Dupin N, et al. Digitate Papulosquamous Eruption Associated With Severe Acute Respiratory Syndrome Coronavirus 2 Infection. JAMA Dermatol. 2020;156(7):819-20.
- 12. Recalcati S. Cutaneous manifestations in COVID-19: a first perspective. J Eur Acad Dermatol Venereol. 2020;34(5):e212-e3.
- 13. Estebanez A, Perez-Santiago L, Silva E, Guillen-Climent S, Garcia-Vazquez A, Ramon MD. Cutaneous manifestations in COVID-19: a new contribution. J Eur Acad Dermatol Venereol. 2020;34(6):e250-e1.
- 14. Sachdeva M, Gianotti R, Shah M, Bradanini L, Tosi D, Veraldi S, et al. Cutaneous manifestations of COVID-19: Report of three cases and a review of literature. J Dermatol Sci. 2020;98(2):75-81.
- 15. Mungmunpuntipantip R, Wiwanitkit V. COVID-19 and Cutaneous manifestations. J Eur Acad Dermatol Venereol. 2020;34(6):e246.
- 16. Klejtman T. Skin and COVID-19. J Med Vasc. 2020;45(4):175-6.
- 17. Ehsani AH, Nasimi M, Bigdelo Z. Pityriasis rosea as a cutaneous manifestation of COVID-19 infection. J Eur Acad Dermatol Venereol. 2020.
- 18. Drago F, Ciccarese G, Rebora A, Parodi A. Human herpesvirus-6, -7, and Epstein-Barr virus reactivation in pityriasis rosea during COVID-19. J Med Virol. 2020.
- 19. Sanchez A, Sohier P, Benghanem S, L'Honneur AS, Rozenberg F, Dupin N, et al. Digitate Papulosquamous Eruption Associated With Severe Acute Respiratory Syndrome Coronavirus 2 Infection. JAMA Dermatol. 2020;156(7):819-20.
- 20. Diaz-Guimaraens B, Dominguez-Santas M, Suarez-Valle A, Pindado-Ortega C, Selda-Enriquez G, Bea-Ardebol S, et al. Petechial Skin Rash Associated With Severe Acute Respiratory Syndrome Coronavirus 2 Infection. JAMA Dermatol. 2020;156(7):820-2.
- 21. Dursun R, Temiz SA. The clinics of HHV-6 infection in COVID-19 pandemic: Pityriasis rosea and Kawasaki disease. Dermatol Ther. 2020:e13730.
- 22. Engelmann I, Ogiez J, Ogiez L, Alidjinou EK, Lazrek M, Dewilde A, et al. Relapsing Pityriasis Rosea With HHV-7 Reactivation in an 11-Year-Old Girl. Pediatrics. 2018;141(5).
- 23. Alame MM, Chamsy DJ, Zaraket H. Pityriasis rosea-like eruption associated with ondansetron use in pregnancy. Br J Clin Pharmacol. 2018;84(5):1077-80.