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Big data and cutaneous manifestations of COVID-19



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In this issue of the *JAAD*, Freeman et al¹ discuss the new COVID registry launched by the American Academy of Dermatology with the support of the International League of Dermatological Societies. Big data has tremendous potential to answer key questions about manifestations of the infection, the influence of pre-existing disease and immunomodulating therapy, and the potential protective or negative effects of other drugs administered for the treatment of chronic diseases. Without such data, we can only guess at the effects of biologics, antimalarials, and other agents. Registries have tremendous potential to produce valuable data that could never be gleaned from single institutions. We applaud the tremendous effort that went into the creation of this valuable tool.

Also in this issue, authors report on the range of dermatologic manifestations associated with COVID-19. Dermatologists are experts in the diagnosis of viral exanthems and play an important role in the response to the pandemic. In addition to secondary findings associated with disseminated intravascular coagulation and other thrombotic events, a viral exanthem may occur in infected patients. In one report, 20% of infected patients had a skin manifestation, and, of that group, 44% presented with a rash at the onset.² The cutaneous manifestations of COVID-19 that have been reported are highly variable and include eruptions that are petechial,³ erythematous, urticarial, vesicular (varicelliform or chicken pox-like), and annular (in review). Manifestations resembling perniosis have been reported in children, and an eruption similar to dengue fever (white islands on a sea of red) can occur. Transient livedo eruptions have also been

reported, and some manifestations may correlate with a greater risk of thrombosis.⁴

Images may be somewhat difficult to obtain because there is a reasonable concern that using a camera in an infected patient's room might result in the camera becoming a potential fomite, but some high-quality images are available, and the *JAAD* family of journals (*JAAD*, *JAAD Case Reports*, and *JAAD International*) are helping make these widely available. Elsevier has made all COVID-related articles open access to help all health care workers in the fight against the pandemic, and a link to the COVID article collection appears in red on the *JAAD* homepage.

A graphical abstract highlighting the range of COVID-19 rashes appears in this issue of the journal, and we will continue to highlight dermatologic aspects of the disease and other scientific data relevant to practicing dermatologists. Dermatologists have contributed data on the sterilization and reuse of personal protective equipment, occupational injury, and optimizing telemedicine platforms to provide care in a virtual environment. We welcome original submissions that present new data to assist in the global response to the pandemic and will provide expedited review and rapid dissemination of these important manuscripts.

REFERENCES

1. Freeman EE, McMahon DE, Fitzgerald ME, et al. The American Academy of Dermatology COVID-19 registry: crowdsourcing dermatology in the age of COVID-19. *J Am Acad Dermatol*. 2020;83:509-510.
2. Recalcati S. Cutaneous manifestations in COVID-19: a first perspective. *J Eur Acad Dermatol Venereol*. 2020;34:e212-e213.

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3. Joob B, Wiwanitkit V. COVID-19 can present with a rash and be mistaken for dengue. *J Am Acad Dermatol*. 2020;82(5):e177.
4. Otto MA. Skin manifestations are emerging in the coronavirus pandemic. *The Hospitalist*. Available at: [https://www.the-](https://www.the-hospitalist.org/hospitalist/article/220183/coronavirus-updates/skin-manifestations-are-emerging-coronavirus-pandemic)

[hospitalist.org/hospitalist/article/220183/coronavirus-updates/skin-manifestations-are-emerging-coronavirus-pandemic](https://www.the-hospitalist.org/hospitalist/article/220183/coronavirus-updates/skin-manifestations-are-emerging-coronavirus-pandemic). Accessed April 29, 2020.