Pityriasis rosea and pityriasis rosea-like eruption: The distinction is relevant for diagnostic and prognostic reasons

Dear Editor,

The review by Bin Rubaian *et al.*, which was recently published in your journal,[1] prompted us to make some observations. The authors reported the cutaneous side effects related to the coronavirus disease 2019 (COVID-19) vaccines, including pityriasis rosea (PR), but did not distinguish between PR (definition that was cited in the abstract) and PR-like eruption (PR-LE), (definition cited in the manuscript text).[1]

Both skin eruptions have been frequently described following COVID-19 vaccinations, but regrettably, most authors did not perform investigations to accurately distinguish between the two forms.[2,3] The distinction is relevant for both diagnostic and prognostic reasons. Indeed, although clinically similar, the two eruptions have completely different pathogenetic mechanisms and require different management. The role of human herpesvirus (HHV)-6/7 systemic reactivation in its pathogenesis with regard to PR has been well established. During SARS-CoV-2 infection, the associated immunosuppression and transactivation abilities of the virus itself[4] can work together to enable the reactivation of latent viral infections such as varicella-zoster virus and HHV-6/7 causing herpes zoster and PR, respectively.[2] Similarly, the COVID-19 vaccine, eliciting a specific immune response against SARS-CoV-2, may temporarily distract the T-cell-mediated control of latent infections causing HHV-6/7 reactivation and, therefore, PR.[2] Contrariwise, PR-LE is not related to HHV-6/7 reactivation: PR-LE is a drug or vaccine-induced skin eruption with clinical features that may resemble genuine PR; a possible pathogenetic mechanism for PR-LE is molecular mimicry of a viral epitope (such as SARS-CoV-2 spike glycoprotein, viral vector or a vaccine ingredient) and host proteins resulting in a T-cell-mediated hypersensitivity reaction.[2] Prodromal symptoms are absent in PR-LE, whereas they are frequently present in PR. In PR-LE, the herald patch is often absent, the cutaneous lesions are more diffuse and confluent with a less bright red color, itch is more intense, and oropharyngeal involvement is more frequent than in PR.[5] Moreover, patients with PR-LE may have blood eosinophilia and, importantly, show no signs of HHV-6/7 systemic reactivation (detection of HHV-6/7 DNA in plasma and of positive IgM antibodies against HHV-6/7 in serum), signs usually present in typical PR.[2,3] The latency time between vaccine administration and onset of the skin eruption is also different between PR and PR-LE: PR-LE usually starts a few days after the vaccine administration, whereas PR develops a few weeks, owing to the time required for HHV-6/7 reactivation to occur.[2,3] As for management and prognosis, vaccine-related-PR-LE lasts on average 14 days and its course is hardly predictable. After a vaccine booster, the skin eruption may or may not recur with more severe features, requiring systemic anti-inflammatory treatment. Conversely, PR lasts on average 45 days, and it is unlikely to recur following the booster vaccine dose.[2] PR-LE can be compared to PR as morbilliform drug eruptions are to measles. In conclusion, in patients with cutaneous eruption suggestive of a viral origin, we emphasize the search for viral reactivations also in the practice of Family Medicine. It could be useful not only to make a distinction between PR and PR-LE but also to be ready to face any adverse reactions to a booster dose of COVID-19 vaccine or to promptly withdraw the involved drug.

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Conflicts of interest

There are no conflicts of interest.

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