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Letter to the Editor

## Comment on a case of pityriasis rosea shortly after Moderna COVID-19 vaccination

Dear Editor,

The article by Shin et al. (Shin *et al.*, 2021) prompted us to make some considerations. They described a patient developing pityriasis rosea (PR) 2 hours after the second dose of Moderna COVID-19 vaccination. They suggested that the short time elapsed between vaccination and PR onset resembled that of delayed localized cutaneous reactions occurring shortly after the second vaccine dose. Indeed, among the patients with a reaction to first dose of the vaccine, most developed a similar localized injection-site reaction also to the second dose; this second reaction frequently developed sooner than the first (Johnston *et al.*, 2021). However, preserved has pathogenic and histologic features that are completely different from those of delayed localized cutaneous reactions. In delayed localized cutaneous hypersensitivity reactions, histology shows minimal epidermal change with focal vacuolar alterations at the dermo-epidermal junction, variable dermal edema with perivascular and perifollicular lymphocytic-histiocytic infiltrates, rare eosinophils, and scattered mast cells. The superficial dermal vessels show dilatation with prominent endothelial cells (Johnston *et al.*, 2021; Blumenthal *et al.*, 2021). The corresponding skin lesions are localized, itchy, and painful erythematous indurated plaques near the injection site, usually resolving within a few days. Conversely, Shin et al. described a cutaneous eruption consistent with a PR or PR-like eruption (PR-LE) and with histopathologic features of a genuine PR. Clinical, histopathologic, and virologic criteria have been proposed to distinguish between the 2 forms (Drago *et al.*, 2014; Drago *et al.*, 2018). Shin et al.'s case had overlapping features of both PR (herald patch, distribution of the lesions, histopathology) and PR-LE (no prodromal/systemic symptoms). Unfortunately, the authors did not mention other features useful for distinguishing between the 2 forms, such as oropharyngeal lesions (Ciccarese *et al.*, 2017; Drago *et al.*, 2021), exanthem duration, and markers of human herpesvirus 6 and 7 (HHV-6/7) systemic reactivation. It is likely that in Shin et al.'s patient, first dose of the vaccine caused HHV-6/7 reactivation and therefore PR, which occurred only after the second dose of the vaccine because of the time needed to evoke the viral reactivation. PR and PR-LE are self-limiting eruptions and their occurrence does not require discontinuation of the vaccination schedule. Nevertheless, we emphasize the importance to distinguish between PR and PR-LE because the former is due to HHV-6/-7 reactivation and, in case of booster dose, it hardly recurs; the latter is a less predictable hypersensitivity reaction, and with the booster dose, the clinical manifestation may not recur, be different from PR-LE, or present with systemic symptoms (Drago *et al.*, 2015).

### Declaration of Competing Interest

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