

A self-resolving flare of psoriasis after COVID-19 vaccination

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Title Page

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AUTHOR CONTRIBUTIONS

Ikwinder Kaur: Writing initial manuscript, literature review

Pankaj Bansal: Reviewing and revising manuscript, image editing, literature review

ETHICS APPROVAL

The Mayo Clinic Institutional Review Board (IRB) acknowledges that based on the responses submitted for this new activity through the Mayo Clinic IRBe Human Subjects Research Wizard tool, and in accordance with the Code of Federal Regulations, 45 CFR 46.102, the above noted activity *does not* require IRB review.

Patient Consent Written informed consent was obtained from the patient for publishing this material.

Self-resolving flare of psoriasis after COVID-19 vaccination

A 63-year-old female presented with worsening skin psoriasis. She was diagnosed with plaque psoriasis 45 years ago, well-controlled with as-needed topical corticosteroid ointment. Two weeks after receiving the second dose of the COVID-19 vaccine, she developed itchy erythematous scaly rashes on extremities, chest, abdomen, and back. The physical examination revealed erythematous pustular plaques all over the body. (Figure 1A-D) She was advised to use topical triamcinolone 0.1% cream. Before even initiating immunosuppressive therapy, her rash started resolving and completely resolved within six weeks of onset. (Figure 1E-H)

COVID-19 can cause immune-overactivation and is associated with exacerbation of rheumatic and musculoskeletal diseases (RMDs) as well as new incident RMDs (1). Concerns about autoimmunity caused by vaccines due to molecular mimicry exist, with rare reports of psoriasis flare after COVID-19 vaccinations (2). Fortunately, similar to our case, most cases were successfully treated with topical treatment, with few requiring systemic therapy. Our report illustrates that though vaccines may increase the risk of RMDs flares, the flares are usually mild and self-resolving. Given the overall safety and efficacy of COVID-19 vaccination, the proven benefits of vaccinating vulnerable patients outweigh the potential theoretical risk of disease flare, and vaccination shall be strongly encouraged.

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Figure 1: (A,B,C,D): Psoriasis flare 2 weeks after the second dose of the BNT162b2 mRNA vaccine. (E,F,G,H): Spontaneous resolution of the psoriatic rash 6 weeks after onset.