

# Comment on published article “Exacerbation of psoriasis after post-COVID-19 vaccine reported in a young female”

Dear Editor,

We would like to share ideas on the publication “Exacerbation of psoriasis after post-COVID-19 vaccine reported in a young female.”<sup>[1]</sup> A patient with red, itchy, scaly areas on their knees, elbows, trunks, and scalp for 8 days who had received immunization 16 days before to symptoms was described by Wanjari and Kantode.<sup>[1]</sup> The patient was treated with medical care, steroids, vitamin A derivatives, anti-inflammatory, and immunosuppressive medications, according to Wanjari and Kantode. At the patient’s 1-week follow-up, the patient’s itching has decreased and the size of his or her scaly patches has not gotten larger.<sup>[1]</sup> Kantode and Wanjari mentioned that it is our duty to refute any false or exaggerated claims that the COVID-19 vaccine is dangerous.<sup>[1]</sup> Wanjari and Kantode said that it is widely accepted that vaccine benefits outweigh the risks, but caution must be taken when connecting negative outcomes to vaccination, patient questions should be anticipated, and results should not be oversold.<sup>[1]</sup>

Despite the fact that this study raises the possibility of a connection between the COVID-19 vaccine and psoriasis flare-ups, there are a number of flaws that must be taken into account. The ability to draw general conclusions about the association between COVID-19 immunization and psoriasis is constrained by the absence of conclusive data, the small sample size, the lack of a control group, and the lack of information on the patient’s medical history. Additionally, by implying a direct connection based on a single occurrence, the report might be overstating its conclusions. Even while it is crucial to be aware of the potential negative effects of vaccination, further research is required to demonstrate a direct causal link and to pinpoint any possible risk factors.

The precise cause of psoriasis worsening following COVID-19 vaccination is unknown, and additional research is needed to properly comprehend this link. There are, however, a number of plausible pathways that could contribute to these phenomena.

One probable explanation is that the COVID-19 vaccine causes an immunological response that activates T-cells, which have a role in the development of psoriasis. This could aggravate existing psoriasis or create new cases in people who are prone to the ailment. It is significant to emphasize that these are merely hypotheses, and additional investigation is required to properly comprehend the connection between the COVID-19 immunization and psoriasis aggravation. Another possibility is that the stress of receiving the COVID-19 vaccination, combined with the stress of the ongoing pandemic, contributes to the development or worsening of psoriasis.<sup>[2,3]</sup> Psoriasis is known to be triggered by stress, and the psychological stress associated with the epidemic is no exception.

Actually, the impact of potential concurrent comorbidity cannot be completely disregarded, and this is a common problem for any retrospective investigation on the negative effects of the COVID-19 vaccine.<sup>[2]</sup> Without a doubt, the effectiveness and outcomes of the immunization were influenced by earlier COVID-19 epidemics. An infection with COVID-19 may have an impact on clinical outcomes. Asymptomatic COVID-19, on the other hand, may present before or after vaccination. It could be impossible to totally rule out an asymptomatic disease without the necessary laboratory testing. The role of genetics has grown significantly.<sup>[4]</sup> Depending on how the immune system responds to specific genetic characteristics, the immune system’s response to a vaccine may vary. Additional study employing larger sample numbers and multicenter approaches may help to confirm these results.

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### Conflicts of interest

There are no conflicts of interest.

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### References

1. Wanjari M, Kantode V. Exacerbation of psoriasis after post-COVID-19 vaccine reported in a young female. *J Family Med Prim Care* 2023;12:800.
2. Gupta MA, Gupta AK. The Psoriasis Life Stress Inventory:

a preliminary index of psoriasis-related stress. *Acta Derm Venereol* 1995;75:240-3.

3. Garg A, Chren MM, Sands LP, Matsui MS, Marenus KD, Feingold KR, *et al.* Psychological stress perturbs epidermal permeability barrier homeostasis: Implications for the pathogenesis of stress-associated skin disorders. *Arch Dermatol* 2001;137:53-9. doi: 10.1001/archderm.137.1.53.
4. Čiužiulkaitė I, Möhlendick B, Thümmel L, Fisenkci N, Elsner C, Dittmer U, *et al.* GNB3 c.825c>T polymorphism influences T-cell but not antibody response following vaccination with the mRNA-1273 vaccine. *Front Genet* 2022;13:932043.

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