

- 4 Monsálvez V, Chico RJ, López-Gómez S, Vanaclocha F. Eritema exudativo multiforme perinéxico [Exudative erythema multiforme around nevi]. *Actas Dermosifiliogr* 2009; **100**: 333–334.
- 5 Humphreys F, Cox NH. Thiabendazole-induced erythema multiform with lesions around melanocytic naevi. *Br J Dermatol* 1988; **118**: 855–856.
- 6 Meyerson LB. A peculiar papulosquamous eruption involving pigmented nevi. *Arch Dermatol* 1971; **103**: 510–512.
- 7 Loh J, Kenny P. Meyerson phenomenon. *J Cutan Med Surg* 2010; **14**: 30–32. <https://doi.org/10.2310/7750.2009.08065>. PMID: 20128988.

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## Erythema multiforme after SARS-CoV-2 vaccine

Dear Editor,

A 46-year-female presented with a 1-week history of multiple erythema and blisters with pruritus on the extremities. She had received both doses of the SARS-CoV-2 vaccine (Corona Vac developed by Sinovac Life Sciences, Beijing, China), which is an inactivated vaccine. She had no adverse reactions after the first dose. The cutaneous lesions started 4 days after the second dose. She denied systemic diseases, medication history and medicine or food allergic history. Physical examination showed multiple circular erythema and blisters with classic target lesions on the distal extremities (Fig. 1). Multiple erosions involved her lip and oral mucosa (Fig. 2). Laboratory tests including blood routine, hepatic and renal function, T. pallidum particle assay, and HIV antibody serology test were normal or negative. The patient was diagnosed with erythema multiforme (EM) and treated with oral loratadine, rinsing with compound chlorhexidine gargle, and topical corticosteroids. The lesions and symptoms were completely relieved after 2 weeks.



**Figure 1** Multiple circular erythema and blisters with classic target lesions on the hands.



**Figure 2** Erosions on the lip and oral mucosa.

Erythema multiforme is an acute self-limited immune-mediated mucocutaneous disorder, and occasionally occurs with visceral involvement in severe patients. The lesions are distributed preferentially on the distal extremities with classic target lesions and may accompany a mucosal injury. Potential triggering factors of EM include infections (especially herpes simplex virus infections), drugs (containing vaccine), topical agents, and some systemic diseases.

With the worldwide vaccination campaign against the COVID-19 pandemic continuing, increasing cutaneous reactions after the SARS-CoV-2 vaccine have been reported. The most common reported cutaneous reactions included urticaria, local injection-site reaction and morbilliform rash.<sup>1</sup> Other cutaneous reactions included delayed large local reaction, swelling, erythema, painful/itchy sensation, erythromelalgia, a flare of an existing dermatologic condition, vesicular, chilblains, zoster, angioedema, pityriasis rosea, filler reaction, vasculitis, contact dermatitis, rash in a breastfed infant, petechiae, lichen planus and EM.<sup>1–4</sup> These reported cutaneous reactions were mainly associated with mRNA SARS-CoV-2 vaccine. There are few cutaneous reactions reported about inactivated SARS-CoV-2 vaccine in the literature.

In conclusion, cutaneous adverse reactions from the SARS-CoV-2 vaccine were very rare, mild and generally rapid spontaneous resolution.<sup>4</sup> We should advance notice and reassure the vaccinator. Nevertheless, these adverse events and others should not discourage vaccination against a life-threatening virus.

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### References

- 1 Edriss M, Farshchian M, Daveluy S. Localized cutaneous reaction to an mRNA COVID-19 vaccine. *J Cosmet Dermatol* 2021; **20**: 2380–2381.
- 2 Merhy R, Sarkis AS, Kaikati J, El Khoury L, Ghosn S, Stephan F. New-onset cutaneous lichen planus triggered by COVID-19 vaccination. *J Eur Acad Dermatol Venereol* 2021; **35**: e729–e730. <https://doi.org/10.1111/jdv.17504>
- 3 Lopes NT, Pinilla CEO, Gerbase AC. Erythema multiforme after Corona-Vac vaccination. *J Eur Acad Dermatol Venereol* 2021; **35**: e717–e719. <https://doi.org/10.1111/jdv.17495>
- 4 Corbeddu M, Diociaiuti A, Vinci MR *et al.* Transient cutaneous manifestations after administration of Pfizer-BioNTech COVID-19 Vaccine: an Italian single-centre case series. *J Eur Acad Dermatol Venereol* 2021; **35**: e483–e485.

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## Flagellate purpura associated with COVID-19 vaccination

Dear Editor,

Flagellate skin eruptions are characterized by 'whip-like' linear or curvilinear streaks, most frequently occurring on the trunk and usually erythematous or pigmented. Common underlying causes include drugs (e.g. bleomycin; peplomycin), diet (e.g. undercooked Shiitake mushrooms) or diseases (e.g. dermatomyositis; adult-onset Still's disease).<sup>1,2</sup> We describe a unique case of flagellate purpura associated with the AstraZeneca (ChAdOx1-S) COVID-19 vaccine.

A systemically well 48-year-old man presented with acute onset of an asymptomatic skin eruption that started to appear 4 h after receiving his first dose of the AstraZeneca COVID-19 vaccine. He denied any recent illness (including no previous

SARS-CoV-2 infection and negative COVID-19 test 5 months prior), new medications, ingestion of undercooked Shiitake mushrooms or coining/cupping procedures. Past medical history was significant for immune thrombocytopenia in childhood, which had since resolved. Physical examination revealed linear purpuric patches involving the trunk and bilateral upper extremities; many of these areas had a flagellate appearance (Figures 1 and 2). Laboratory investigations demonstrated neutrophilia and hyperbilirubinemia, but no other abnormalities (including normal platelet count and coagulation profile). Skin biopsies showed perivascular lymphocytic infiltrate with red blood cell extravasation and perifollicular fibrosis, consistent with purpura or a purpuric drug reaction without evidence of vasculitis.

The patient received one dose of a systemic corticosteroid (prednisone 40 mg orally), but no other treatments given the asymptomatic nature. Complete resolution occurred within two weeks without sequelae.

We report a unique case of flagellate purpura following the AstraZeneca COVID-19 vaccine. Given the timeline and absence of other known triggers for this type of presentation, it appears that the COVID-19 vaccine was the underlying cause. The pathogenesis of flagellate skin eruptions is poorly understood. In cases where bleomycin is the cause, it may be secondary to microtrauma (scratching), which results in the drug leaking out



**Figure 1** Clinical findings 20 h after vaccination: flagellate purpura on the trunk and bilateral upper extremities.