

- 3 Ujiie H, Sawamura D, Shimizu H. Development of lichen planus and psoriasis on lesions of vitiligo vulgaris. *Clin Exp Dermatol* 2006; **31**: 375–377.
- 4 Piccolo V, Baroni A, Russo T, Schwartz RA. Ruocco's immunocompromised cutaneous district. *Int J Dermatol* 2016; **55**: 135–141.
- 5 Ruocco V, Ruocco E, Piccolo V, Brunetti G, Guerrera LP, Wolf R. The immunocompromised district in dermatology: a unifying pathogenic view of the regional immune dysregulation. *Clin Dermatol* 2014; **32**: 569–576.
- 6 Baroni A, Buommino E, Piccolo V *et al.* Alterations of skin innate immunity in lymphoedematous limbs: correlations with opportunistic diseases. *Clin Dermatol* 2014; **32**: 592–598.
- 7 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>
- 8 Hiltun I, Sarriugarte J, Martínez-de-Espronedada I *et al.* Lichen planus arising after COVID-19 vaccination. *J Eur Acad Dermatol Venereol* 2021; **35**: e414–e415.
- 9 Mazzatenta C, Piccolo V, Pace G, Romano I, Argenziano G, Bassi A. Purpuric lesions on the eyelids developed after BNT162b2 mRNA COVID-19 vaccine: another piece of SARS-CoV-2 skin puzzle? *J Eur Acad Dermatol Venereol* 2021; **35**: e543–e545. <https://doi.org/10.1111/jdv.17340>
- 10 Piccolo V, Bassi A, Argenziano G *et al.* BNT162b2 mRNA COVID-19 vaccine-induced chilblain-like lesions reinforces the hypothesis of their

relationship with SARS-CoV-2. *J Eur Acad Dermatol Venereol* 2021; **35**: e493–e494.

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Nevocentric erythema multiforme after SARS-COV-2 vaccine

A 27-year-old woman presented to our Dermatology Unit referring an acute skin rash with no associated systemic symptoms. Three days before, the patient had taken the SARS-COV-2 vaccine (Comirnaty™ – BioNTech/Pfizer - Mainz, Germany/New York, NY, USA). Physical examination showed erythematous, ring-shaped plaques only surrounding several, but not all of her melanocytic nevi (Fig. 1a–d). Dermoscopy revealed typical melanocytic nevi having a reticular or globular pigment pattern, surrounded by a purpuric red ring (Fig. 2a,b). A

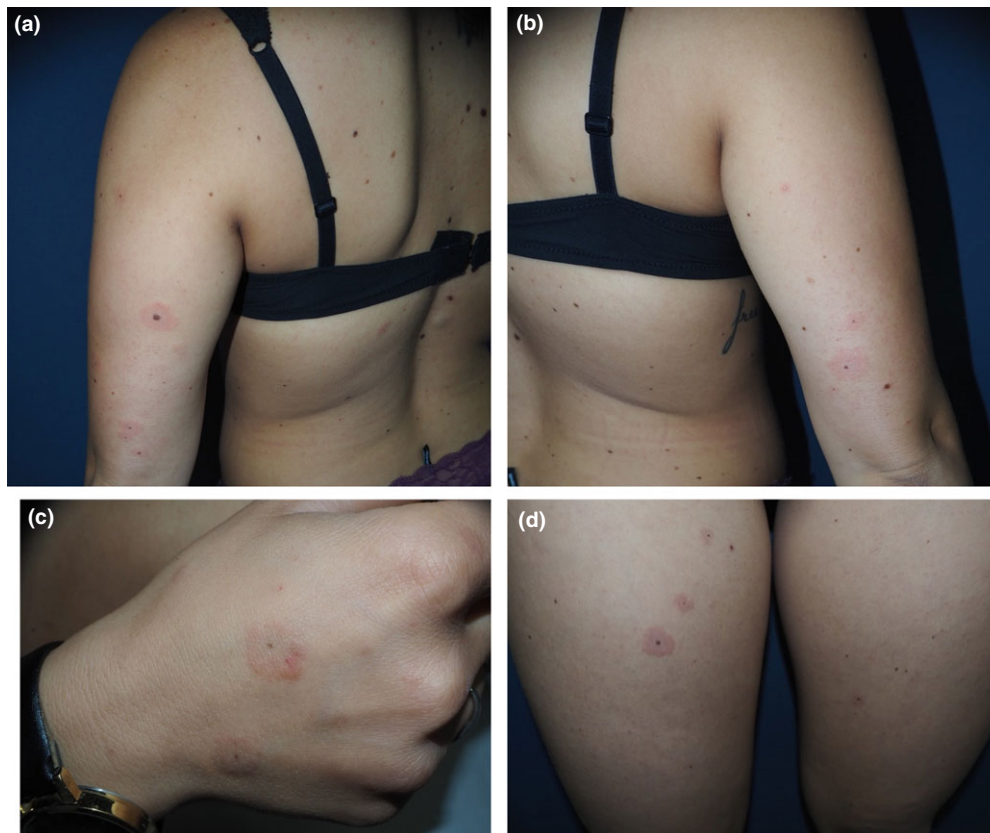


Figure 1 Clinical images of nevocentric erythema multiforme presenting on arms (a and b), hands (c) and thighs (d). Nevi of the back were not affected.

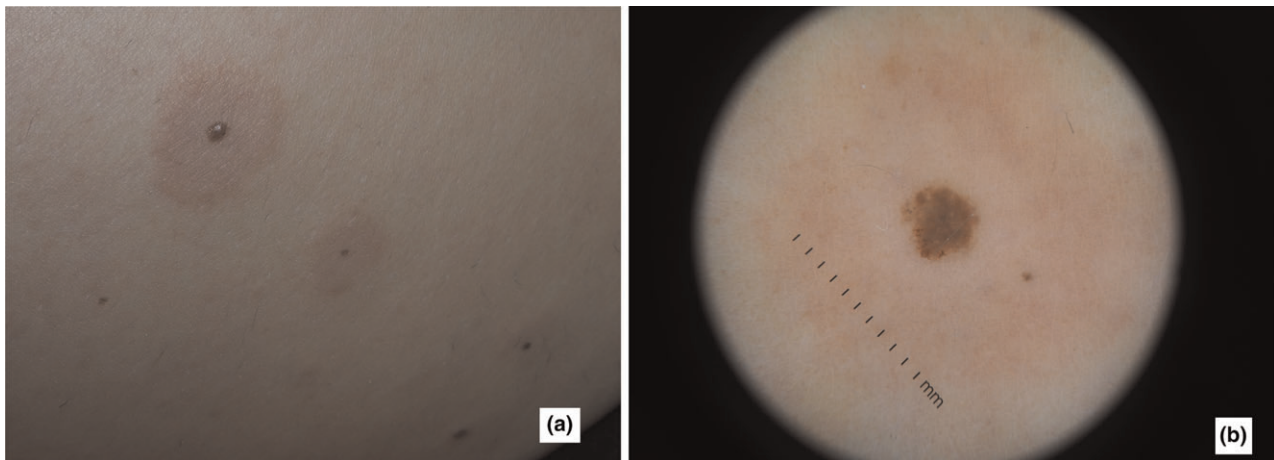


Figure 2 Clinical images showing the purpuric ring around the nevi. (a) Dermoscopically, a typical globular nevi is surrounded by a pinkish halo that becomes more prominent at the periphery (b).

clinical diagnosis of a nevocentric erythema multiforme (EM) was made. Therapy with cetirizine 10 mg and moisturizers was initiated with complete resolution seen after 2 weeks. At the follow-up examination, no changes were found in her otherwise banal pre-existing nevi.

Most cases of nevocentric EM reported in the literature were described as a postherpetic phenomenon.¹ McKenna² and Parisser³ reported two adult female patients with nevocentric EM affecting the trunk and limbs after a HSV infection of the lower lip. Monsálvez *et al.*⁴ described the case of a pregnant woman, with history of recurrent labial herpes, presenting with halos of erythema around her nevi. Finally, Di Brizzi *et al.*¹ reported a case of a 9-year-old girl presenting a nevocentric EM after labial herpes. The only case non-related to a herpetic infection was described by Humphreys and Cox⁵ occurring in a 37-year-old female patient after the ingestion of thiabendazole.

The reaction itself differs from the well-known phenomenon described by Meyerson⁶ in 1971, which consists of an eczematous halo surrounding a pre-existing melanocytic nevi, but it is not clear whether an interaction between CD4 T lymphocytes and increased expression of intercellular cell adhesion molecule 1 might be involved in both these nevocentric processes.⁷

The course of nevocentric EM does not differ from the classical form of EM, and no alterations of the affected nevi were reported previously. Along these lines, patients can be reassured of the benign outcome of this condition.

Albeit the pathogenesis of EM ‘targeting’ nevi is obscure, in our case, we can hypothesize a similar mechanism as that involved in post-HSV nevocentric EM. The specific vaccine used in our patient was a modified messenger RNA in lipidic nanoparticles that allows the liberation of a non-replicant RNA

inside the host cells, expressing the ‘S’ SARS-COV-2 antigen transiently. It is therefore plausible that the vaccine may induce a similar reaction to that occurring after an HSV infection.

In conclusion, nevocentric EM is a benign, limited condition that can be added to the list of possible skin reactions associated with SARS-COV-2 vaccines.

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Data availability statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study

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References

- 1 Di Brizzi EV, Tartari F, Filippi F, Viridi A, Gurioli C, Neri I. Nevocentric erythema multiforme in a child. *Pediatr Dermatol* 2021; **38**: 514–515. <https://doi.org/10.1111/pde.14504>. Epub 2020 Dec 29. PMID: 33372323.
- 2 Mc Kenna KE. Naevocentric erythema multiforme associated with herpes labialis. *Br J Dermatol* 1999; **141**: 954–955.
- 3 Parisser RJ. Nevocentric erythema multiforme. *J Am Acad Dermatol* 1994; **31**(3 pt 1): 491–492.

- 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.¹ 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.^{1–4} 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.⁴ 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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