

and understand skin reaction associated with SARS-CoV-2 and its vaccines.

Conflict of interest

Cristina Moya-Martinez has no conflict of interest to declare. Emilio de Dios Berná-Rico has no conflict of interest to declare. Ana Melian-Olivera has no conflict of interest to declare. Carmen Moreno-Garcia del Real has no conflict of interest to declare. Diego Fernández-Nieto has no conflict of interest to declare.

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Informed consent

The patient in this manuscript has given written informed consent to publication of her case details.

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

- Mohta A, Jain SK, Mehta RD, Arora A. Development of eruptive pseudoangiomatosis following COVID-19 immunization – Apropos of 5 cases. *J Eur Acad Dermatol Venereol* 2021; **35**: e722–e725.
- Cherry JD, Bobinski JE, Horvath FL, Comerci GD. Acute hemangioma-like lesions associated with ECHO viral infections. *Pediatrics* 1969; **44**: 498–502.
- Alonzo Caldarelli A, Barba P, Hurtado M. Eruptive pseudoangiomatosis and SARS-CoV-2 (COVID-19) infection. *Int J Dermatol* 2021; **60**: 1028–1029.
- Chopra D, Sharma A, Kaur S, Singh R. Eruptive pseudoangiomatosis - cherry angiomas with perilesional halo. *Indian J Dermatol Venereol Leprol* 2018; **84**: 424.
- Ban M, Ichiki Y, Kitajima Y. An outbreak of eruptive pseudoangiomatosis-like lesions due to mosquito bites: erythema punctatum Higuchi. *Dermatology* 2004; **208**: 356–359.
- Mori A, Kaku Y, Dainichi T. Erythema punctatum Higuchi: reconsidering its relationship with adrenergic urticaria and eruptive pseudoangiomatosis. *J Eur Acad Dermatol Venereol* 2021; **35**: e792–e793.
- Lipsker D. Paraviral eruptions in the era of COVID-19: Do some skin manifestations point to a natural resistance to SARS-CoV-2? *Clin Dermatol* 2020; **38**: 757–761.
- Blumenthal KG, Freeman EE, Saff RR *et al.* Delayed large local reactions to mRNA-1273 vaccine against SARS-CoV-2. *N Engl J Med* 2021; **384**: 1273–1277.

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Response to ‘A skin reaction with rust-like discolouration to mRNA COVID-19 vaccine’

Editor

We have read with the utmost interest the content of the recent letter by Pasternack *et al.*,¹ which deals with a rare skin reaction following the mRNA COVID-19 vaccine. Our report and the additional three cases discussed in the aforesaid letter suggests that this complication may be more common than appreciated or reported. In fact, a 30-year-old man with no significant past medical history was admitted to the hospital with multiple yellow-orange discolouration of the right hand. The patient reported the onset of lesions one day after the first dose of the SARS-COVID-19 vaccine ‘pfizer’. In fact, a physical examination (Fig. 1) revealed multiple non-infiltrated yellow-orange macular patches symmetrically distributed on the metacarpophalangeal and the proximal interphalangeal joints of the right hand. However, there were no areas of ulceration, discharge or infection. Then, the remaining physical examination was normal. Moreover, a laboratory examination for the presence of hepatic enzymes, thyroid hormone, creatinine, urea and vitamin A levels showed no abnormality and all lesions subsided in 48 h with no recurrence.

Cutaneous reactions have been reported after messenger RNA (mRNA)-based COVID-19 vaccines but are not well characterized, however, delayed large local reactions were the most common.^{2,3}

Comparatively, our young patient, who had no medical history of allergy, had not experienced another adverse event. In



Figure 1 Yellow-orange macules symmetrically distributed on the joints of the right hand.

fact, these skin reactions would suggest a hemosiderin pigmentation but resolves too rapidly to be explained as such. Therefore, another mechanism was proposed, which is local capillary leakage due to the vaccination and some type of immunologic reactions located in the dermis/epidermis junction.¹ However, despite the benign character and the harmless evolution of this side effect of the vaccines, its understanding is important to avoid unnecessary investigations and reassure the patient.

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Conflict of interest


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Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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References

- 1 Pasternack R, Pohjjavaara S. A skin reaction with rust-like discolouration to mRNA COVID-19 vaccine. *J Eur Acad Dermatol Venereol* 2021; **35**: 737–738.
- 2 McMahon DE, Amerson E, Rosenbach M *et al*. Cutaneous reactions reported after Moderna and Pfizer COVID-19 vaccination: a registry-based study of 414 cases. *J Am Acad Dermatol* 2021; **85**: 46–55.
- 3 Blumenthal KG, Freeman EE, Saff RR *et al*. Delayed large local reactions to mRNA-1273 vaccine against SARS-CoV-2. *N Engl J Med* 2021; **384**: 1273–1277.

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Generalized erythema multiforme-like skin rash following the first dose of COVID-19 vaccine (Pfizer-BioNTech)

Dear Editor,

Since the outbreak of COVID-19 in December 2019, more than 4 million people have died worldwide. The global pandemic of COVID-19 has prompted each country to issue an

emergency use authorization for COVID-19 vaccines. In South Korea, the Ministry of Food and Drug Safety authorized the administration of four vaccines: Pfizer-BioNTech (BNT162b2, New York, NY, USA), Moderna (mRNA-1273, Cambridge, MA, USA), Oxford–AstraZeneca (ChAdOx1, Cambridge, UK) and Johnson & Johnson's Janssen (JNJ-78436735, Beerse, Belgium). Although these vaccines were presumed to be safe, several nonspecific skin eruptions have been reported after the health system initiated public COVID-19 vaccination.¹ Here, we report a patient who developed *de novo* erythema multiforme (EM) following COVID-19 vaccination with BNT162b2.

A 78-year-old previously healthy woman presented to our clinic with a 2-day history of multiple targetoid erythematous plaques with severe itching over the entire body (Fig. 1). The patient received the first dose of COVID-19 vaccine (Pfizer-BioNTech) 12 days ago. Ten days after the vaccination, a skin



Figure 1 Multiple erythematous papules and concentric plaques on the (a) trunk and upper extremities, (b) back, (c) palms and (d) lower extremities.