skin. The cause was subsequently found to be iatrogenic – polymixin B was prescribed to both patients to treat multidrug resistant bacterial infection.[2] The localized hyperpigmentation involving the centrofacial area that we observed in our patients was reminiscent of the 'Chik sign'.[3] In resource-limited settings, this classic pigmentary sequelae serves a cutaneous clue in making a retrospective diagnosis of chikungunya fever and rarely dengue.[4,5] The underlying pathology remains speculative. On histopathology, increased basal layer pigmentation, pigmentary incontinence and dermal melanophages with perivascular inflammatory infiltration have been observed. Thus, an increased intraepidermal melanin dispersion/retention triggered by the virus has been postulated as a cause for pigmentation.[6] Predominant affection of the centrofacial area indicates the possible role of ultraviolet radiation exposure in this patterned distribution of pigmentation. As a postviral event, this mechanistic reasoning may explain the pigmentary outcome in SARS-CoV-2-infected patients. Interestingly, accompanying postfebrile arthritis is a feature common to both the viral aetiologies (SARS-CoV-2 and chikungunya).[7] Thus, making a serological diagnosis is imperative in such cases. After excluding the common causes and given the temporal relation with COVID-19, the cause of the nasal pigmentation in these patients was attributed to SARS-CoV-2 infection.

Hyperpigmentation associated with chikungunya fever (CF) usually develop after 1–3 weeks after fever defervescence.[6,8] In our set of patients, a slightly longer time gap was noted. Therapeutic measures like photo-protection, sunscreen and topical usage of hypopigmenting agents of hydroquinone cream with or without short course topical steroids for a month have shown good response in treating hyperpigmentation in CF patients.[4,9] For our patients, we had to continue topical therapy for nearly 3–4 months for clinical improvement to be appreciable.

In conclusion, we highlight here a unique series of patients where a pigmentary sequelae ('COVID nose') was directly ascribed to COVID-19. 'Chik sign', which is considered a feature quite unique to CF, should also raise the suspicion of a preceding COVID-19 infection. We further implore clinicians to broaden the list of differentials for this presentation to include other viral aetiologies.

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Conflicts 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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Development of eruptive pseudoangiomatosis following immunization with COVISHIELD vaccine in an adult

Editor,
Eruptive pseudoangiomatosis (EPA) is a rare paraviral exanthem characterized by sudden appearance of multiple millet-sized discrete angioma-like lesions surrounded by a pale halo. Herein, we report an interesting case of EPA following COVISHIELD vaccine (Oxford-AstraZeneca) in a 36-year-old male patient with pemphigus vulgaris on long-term immunosuppression.

A 36-year-old male patient, who was a diagnosed case of pemphigus vulgaris, presented to dermatology outpatient

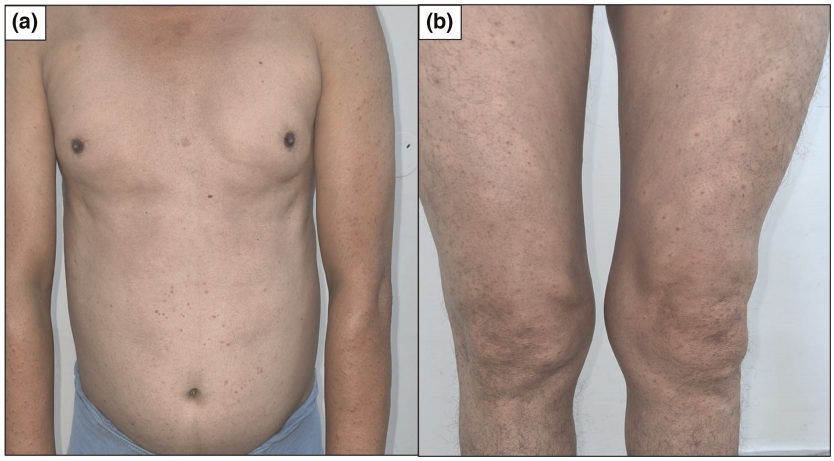

Figure 1 (a, b) Multiple small symmetrically distributed, discrete, erythematous, angioma-like papules noted on both upper limbs, abdomen (a) and lower limbs with the perilesional halo predominantly seen on lower limbs (b).

department with a 2-day history of asymptomatic erythematous lesions (Fig. 1a,b) all over the body following the second dose of COVID-19 vaccine (COVISHIELD). Similar eruption was present following the first dose, that resolved spontaneously within 2 weeks. He was on prednisolone 15 mg/day and azathioprine 50 mg twice a day for pemphigus vulgaris for the past 1 year. There was no history of fever and prodromal symptoms such as sore throat, gastrointestinal disturbance and insect bite prior to the eruption. Mucocutaneous examination revealed multiple small (of about 2–4 mm in size) erythematous, angioma-like papules surrounded by pale halo symmetrically distributed on both upper limbs, abdomen and lower limbs. Lesions were completely blanchable and filled from the centre when released. Perilesional halo was more prominent on lower extremities. Histopathological examination from the lesion showed spongiosis, follicular plugging and vacuolar degeneration in epidermis and perivascular lymphocytic infiltrate with endothelial cell swelling in dermis, suggestive of EPA (Fig. 2). Considering the benign nature of the lesion, no active intervention was performed. At 2 weeks of follow-up, lesions resolved without any residual changes.

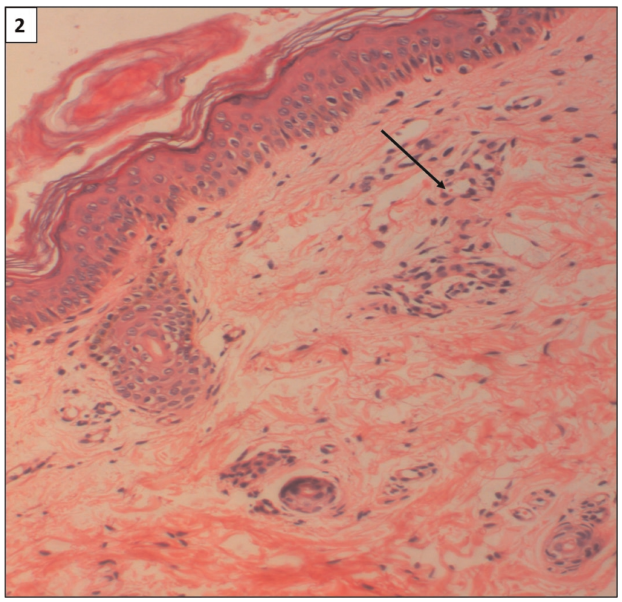

Figure 2 Histopathological image showing perivascular lymphocytic infiltrate with endothelial cell swelling (black arrow) in dermis (hematoxylin and eosin stain, ×40).

Eruptive pseudoangiomatosis (EPA) is a rare, benign condition characterized by multiple small discrete, angioma-like lesions surrounded by a pale halo, primarily seen in children following insect bite.[1] Though the lesions clinically resemble angioma, the absence of vascular proliferation on histopathology adds the prefix pseudo. It was first described by Cherry *et al* in 1969 in four children with enteroviruses-enteric cytopathic human orphan (ECHO) virus-25,32 infection.[2] Later, in the year 2000, the first adult case was reported in a 37-year-old woman with the clinical evidence of Epstein Barr virus (EBV) infection.[3] The current hypothesis is that EPA is a viral exanthem, possibly transmitted via an insect vector. Regardless, no single virus has been ascribed as causative agent. There are reports linking EPA to cytomegalovirus, ECHO virus, EBV, adenovirus infections, Culex pipiens mosquito bite, and so on. In adults, it is strongly associated with immunosuppressed states; such as kidney transplantation, haematological malignancies and elderly patients.[4] Haematogenous dissemination of the causative virus following inoculation leads to prodromal symptoms followed by an exanthem in children, while re-infection under immunosuppressed conditions probably results in proliferation of the causative

agent in adults.[1] The rash is mostly asymptomatic or may be associated with mild pruritus. It resolves spontaneously in 2–18 days in children and 1–3 months in adults without any residual scarring or pigmentation. Recurrent episodes have been reported. Diagnosis is mostly clinical. Histopathology shows non-specific features such as dilated dermal blood vessels with perivascular lymphocytic infiltrates and plump endothelial cells.

ChAdOx1 nCoV-19 corona virus vaccine (COVISHIELD/Oxford-AstraZeneca) is a recombinant vaccine containing replication deficient chimpanzee adenovirus vector encoding the SARS-CoV-2 (S) glycoprotein used for active immunization against corona virus infection. It acts by locally expressing SARS-CoV-2 S glycoprotein, thereby stimulating neutralizing antibody and cellular immune response. There is some evidence for the safety of mRNA vaccines in patients with dermatologic diseases treated with standard dose of systemic immunosuppressive therapy.[5] However, the data pertaining to the safety of adenovirus vectored vaccines are scarce. Mucocutaneous reactions ranging from injection site reactions, urticaria, morbilliform reactions to anaphylaxis have been reported.[6,7] EPA has been reported in patients with COVID-19 infection as a paraviral manifestation of the disease.[8] Due to its benign self-limiting nature, no active intervention is required. The occurrence of self-limiting EPA after both doses of vaccination is confirmatory of role of vaccination on EPA rather than of immunosuppression. Our case is novel because of the occurrence of EPA following the vaccination for COVID-19. Therefore, reporting such events after vaccination is crucial because it aids in allaying unwarranted anxiety among patients as well as physicians regarding such innocuous adverse reactions, and the development of such manifestations should not discourage vaccine administration.

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Reply to "COVID vaccine–induced lichen planus on areas previously affected by vitiligo"

Dear Editor,

We have read with interest the letter by Piccolo *et al.* on COVID vaccine–induced lichen planus (LP) on vitiligo-affected areas. Since the beginning of the immunization programs, COVID vaccine–induced rashes have been documented in several cases.[1]

We report the case of a 29-year-old woman with vitiligo on her hands that appeared more than 10 years ago. One week after administration of Pfizer-BioNTech COVID-19 vaccine, she developed LP-suggestive lesions on depigmented areas, which progressed after the second vaccine administration, involving skin areas not previously affected by vitiligo. At the time of consultation, erythematous, polygonal papules were seen on the dorsum of the hands, wrists, eyelids, submammary region, and lower extremities. Oral mucosa examination revealed reticular white marking and white plaques (Fig. 1).

The skin biopsy of abdominal lesions confirmed LP diagnosis, showing acanthosis and basal cell degeneration with civatte bodies and band-like dermal lymphocytic infiltrate. Blood tests including biochemical and hematological parameters were normal. Antinuclear antibodies (ANAs) and serologies for hepatitis B, C, and HIV were negative. Topical clobetasol propionate and systemic prednisone were prescribed, with partial resolution of the lesions. Subsequently, treatment with methotrexate 10 mg a week was started with progressive improvement.