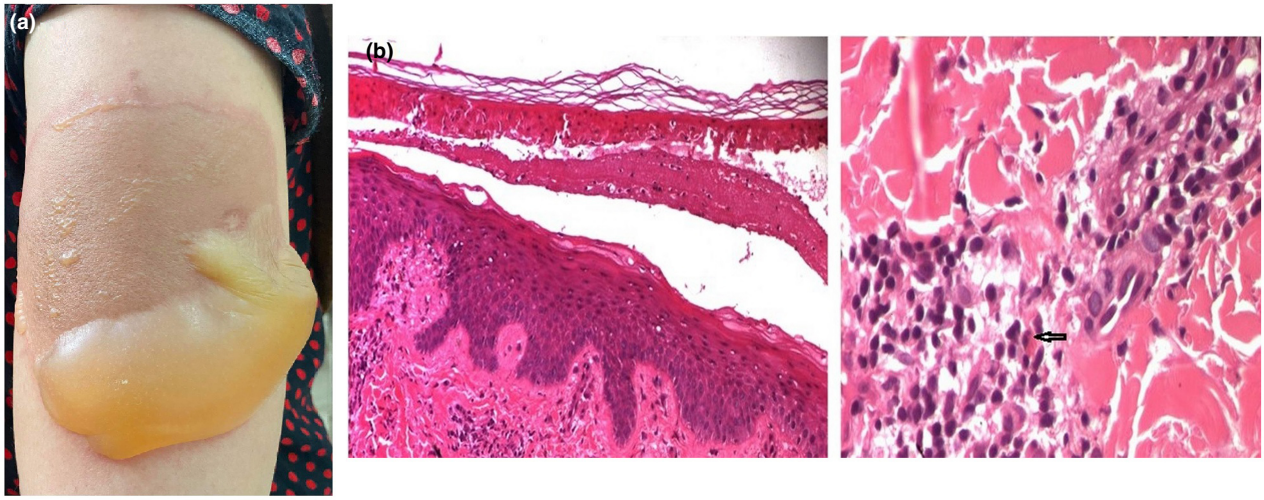

Figure 1 (a) A well-defined bullous erythematous plaque. (b) Epidermal necrosis leading to bullae formation (haematoxylin-eosin, original magnification ×100) with superficial and deep perivascular mixed infiltrate of lymphocytes, neutrophils and eosinophils (arrow), in addition to dermal melanophages (haematoxylin-eosin, original magnification ×400).

polysorbate 80. Actually, our patient had already tolerated drugs containing this excipient.

ChAdOx1 nCoV-19 is well tolerated in most people. It has also been shown to be so effective that the benefits of receiving the vaccination outweigh the risk of developing mild and self-limiting cutaneous adverse reactions such as FDE.

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

Conflicts of interest

None.

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None.

Data availability statement

The data used for this study are available from the corresponding author at reasonable request.

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Two cases of anti-TIF1-γ antibody positive dermatomyositis with manifested symptoms after SARS-CoV-19 vaccination

Editor,

Although rare, in several instances vaccines have been suggested as environmental factors triggering development of inflammatory myopathies, including dermatomyositis (DM)/polymyositis (PM).[1,2] We describe two cases in which DM became apparent after SARS-CoV-19 vaccination.

Case 1; an 81-year-old female patient developed bilateral eyelid oedema and erythema on the dorsum of her hands and fingers approximately 2 weeks after her first SARS-CoV-19 vaccine (manufactured by Pfizer Inc., New York, NY, USA). Skin examination confirmed bilateral eyelid oedema and revealed e rythema with pruritus on both auricles and scaly erythema with pruritus from the posterior neck to the back of the head. In addition, periungual erythema on both fingers and erythema with slight hyperkeratosis at the bilateral metacarpophalangeal (MCP) joints, the extensor side of the right elbow joint, and the shoulder joint were noted (Fig. 1). Other than mild fatigue, no remarkable abnormalities were found upon physical examination, including the manual muscle strength test (MMT). She had no obvious respiratory symptoms or dysphagia. Laboratory examination revealed high values of the muscle deviation enzyme, creatine kinase (CK): 3119 U/L (normal range of female: 41–153), myoglobin: 583.42 ng/mL (normal range: 109>) and aldolase: 16.5 mg/dL (normal range: 5>). Concerning DM-specific antibodies, only anti-transcription intermediary factor 1-gamma (anti-TIF1-γ Ab) was positive. No obvious interstitial pneumonia was found by chest Xp. Histopathological findings of skin samples from erythema with slight hyperkeratosis at the extensor side of the right elbow joint revealed liquefaction degeneration in the basal layer and mild lymphocytic infiltration around small vessels at mid-dermis (Fig. 1). Histopathological findings of muscle (vastus lateralis muscle) were consistent with DM (not shown). Based on these results, she diagnosed as DM (anti-TIF1-γ Ab positive).

A combination of prednisolone (PSL) 50 mg (1 mg/kg) and high-dose intravenous immunoglobulin therapy were administered. The general condition and myogenic enzyme level improved rapidly, and the skin findings gradually disappeared. In parallel, the patient's faecal occult blood test was positive, and lower gastrointestinal endoscopy revealed findings suggestive of advanced sigmoid colon cancer.

Case 2; an 87-year-old female patient experienced myalgia in both upper limbs and thighs approximately 1 week after her first SARS-CoV-19 vaccination (manufactured by Pfizer). Primary care doctor who found a high myoglobin value (401.8 ng/mL) referred her to our university hospital. Skin findings revealed oedema with slight erythema at bilateral eyelids and scaly erythema at a seborrheic lesion of the head and neck. Erythema with slight oedema and scratch marks were observed on her back (Fig. 2). There were no signs of Gottron papules or periungual erythema. General malaise and proximal muscle weakness (about MMT3) were observed predominantly in the upper arm. Histopathological examination of the erythema on

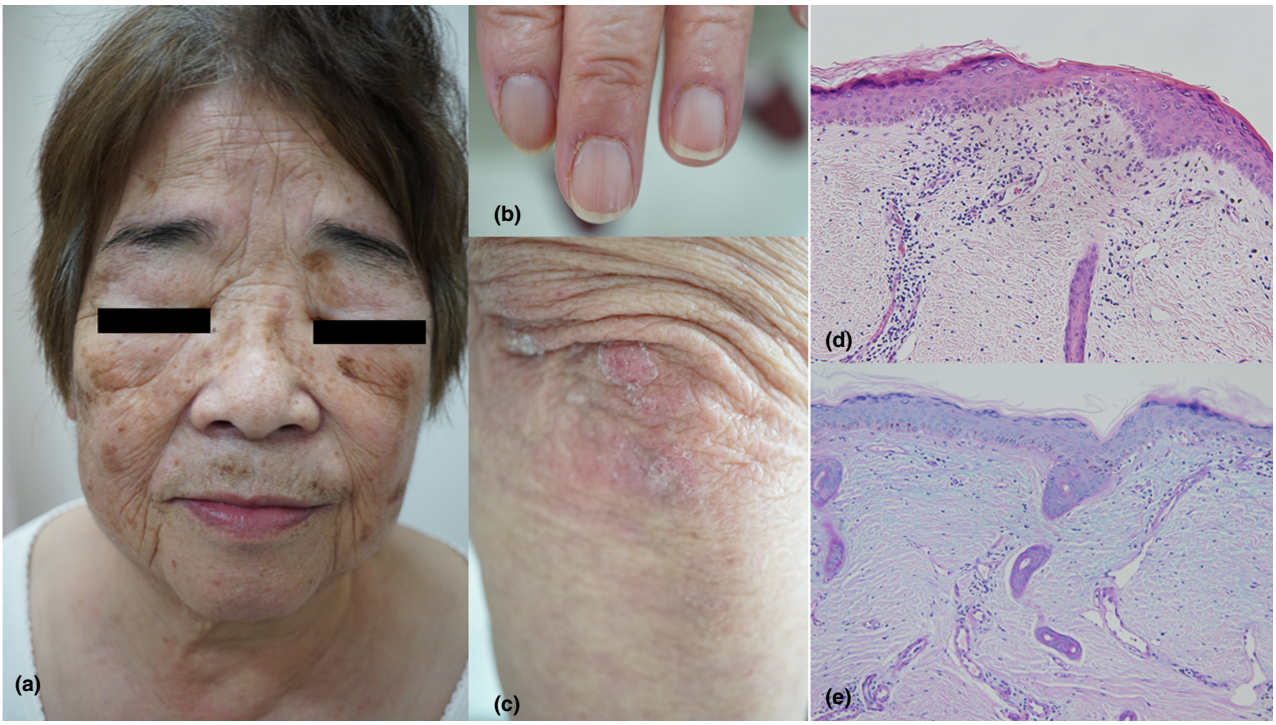

Figure 1 Clinical appearance and skin specimen histology of Case 1. (a) Bilateral eyelid oedema, (b) periungual erythema on fingers, (c) erythema with a slight hyperkeratosis at extensor side of the right elbow joint, (d) liquefaction degeneration in the basal layer and mild lymphocytic infiltration around small vessels at mid-dermis (H&E stain, × 100), (e) mucin deposition at the shallow-mid dermis (PAS Alcian Blue stain, × 100).

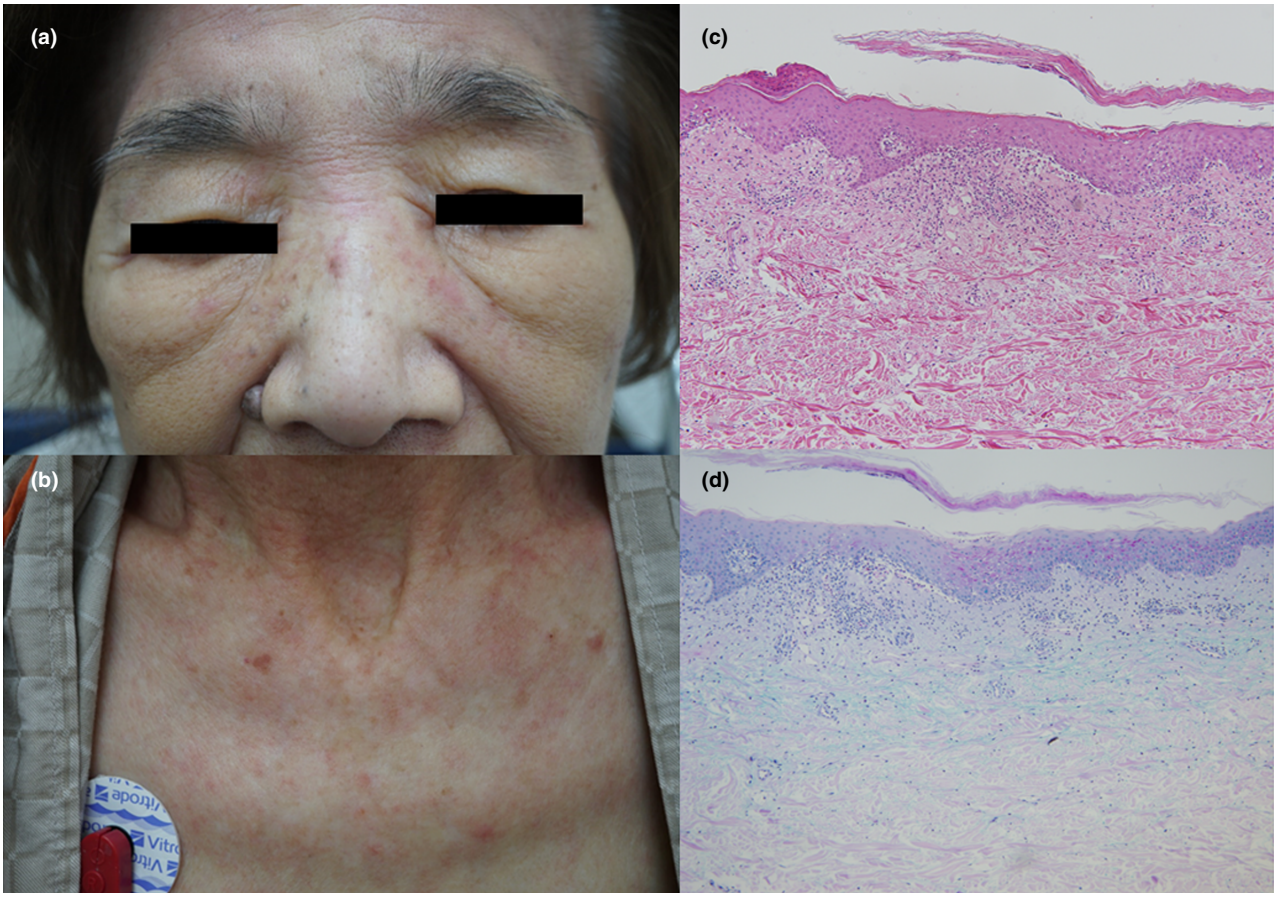

Figure 2 Clinical appearance and skin specimen histology of Case 2. (a) Bilateral eyelid oedema and scaly erythema at seborrheic lesion, (b) erythema with slight oedema at the neck, (c) liquefaction degeneration in the basal layer and mild lymphocytic infiltration around small vessels at mid-dermis (H&E stain, × 100), (d) mucin deposition at the shallow-mid dermis (PAS Alcian Blue stain, × 100).

her back was consistent with DM. Blood tests showed anti-TIF1-γ antibodies and a high level of carbohydrate antigen 19-9. A commuted topography scan revealed a mass lesion in the ascending colon, and the possibility of DM with malignant tumour of the colon was considered as a diagnosis. Treatment with PSL 30 mg/kg (1 mg/kg) was initiated, and myogenic enzyme levels and skin lesions improved.

There have been several case reports of DM/PM in vaccinated patients, but the mechanisms are unclear and speculative.[3] DM may occur when the immune response caused by receiving the vaccine occurs in a person with a particular genetic background; however, it is quite rare. In line with this, two cases in this present report were DM with anti-TIF1-γ Ab positive and colon cancer. Of course, our DM cases may be based on malignancy, without relationship to the vaccine.

Various side effects have been reported following SARS-CoV-19 vaccination[4] and determining whether the onset of these side effects is different from other vaccines is critical. Future data collection is crucial for us, dermatologists, to discover the connection between SARS-CoV-19 vaccinations and skin symptoms.

Patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given their consent for the publication of their images and other clinical information in the journal. They understand that their name and initial will not be published, and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Conflicts of interest

None.

Data availability statement

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

are not publicly available due to privacy or ethical restrictions.

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Erythema gyratum repens after COVID vaccination

Dear Editor,

Billions of COVID vaccines have been administered worldwide.[1] Symptoms frequently observed after vaccination include fever, headache, fatigue, diarrhoea and local injection-site reactions.[2] Similar to COVID-19 infection, SARS-CoV-2 vaccines appear to have the potential to induce a broad spectrum of cutaneous manifestations, both with BNT162b2 mRNA and ChAdOx1 adenovirus vaccine.[2]

We report on a 53-year-old female that complained of pruritic lesions in the lower limbs. Lesions first appeared on the thighs and quickly progressed distally. It started 24 h after the first dose of Astrazeneca vaccine (Vaxzevria®, AstraZeneca, Araçatuba, Brazil) for COVID-19; however, she was admitted in the outpatient Dermatology clinics 90 days after the onset.

She previously used oral corticosteroids (immunosuppressive dose) for 10 days and antihistamines without response. She has a past medical history of arterial hypertension, using hydrochlorothiazide and losartan. On physical examination,

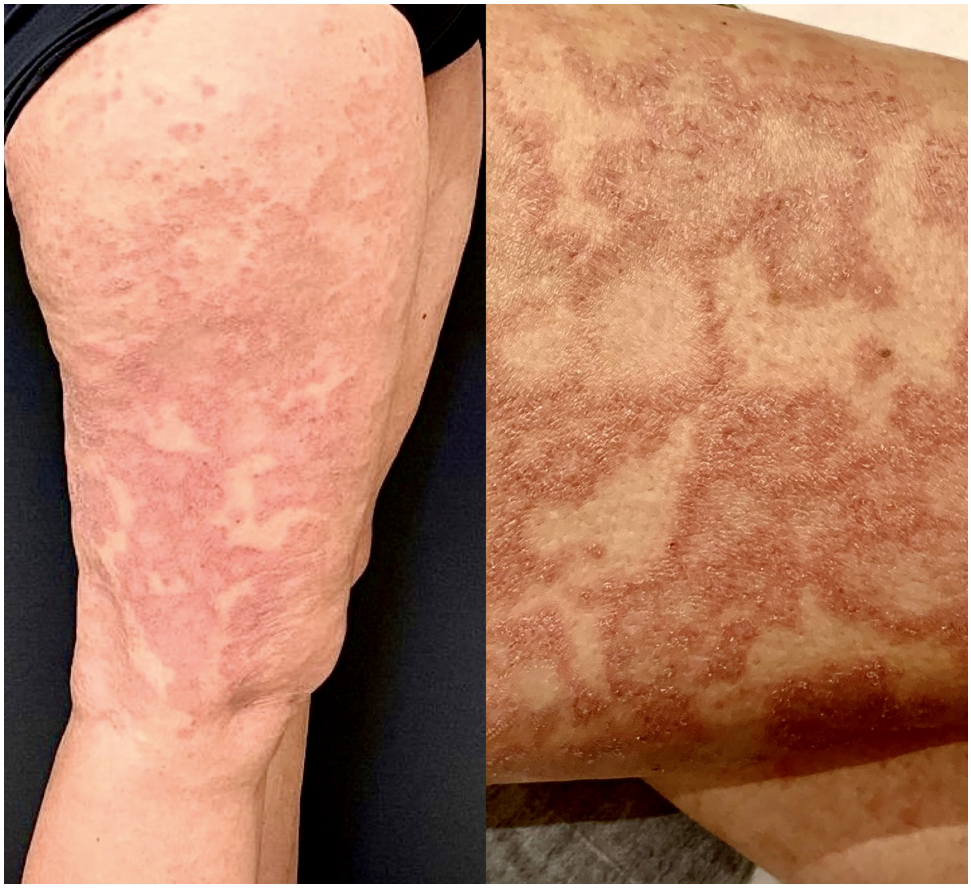

Figure 1 Erythema Gyratum repens with erythematous concentric annular plaques, resembling wood grain figures.