AZD-1222

Cutaneous thrombosis associated with skin necrosis: case report

A 73-year-old man developed cutaneous thrombosis associated with skin necrosis following vaccination with AZD-1222 for COVID-19.

The man presented with ulceration of his left shin 2 weeks after the administration of his first dose of AZD-1222 [ChAdOx1 nCov-19; *dosage and route not stated*] COVID-19 vaccine. His medical history was significant for atrial fibrillation with ischaemic cardiomyopathy and had been receiving apixaban and other unspecified medications. Within 24h of vaccination, he had developed fever and headache. Following the remission of these systemic symptoms, on the third day after vaccination, he developed left shin erythema and blistering, which progressively ulcerated. On physical examination, he had two superficial ulcers on the lateral portion of his left shin that measured approximately 20 × 30mm and had a necrotic basis and violaceous edge. Antinuclear antibodies, antineutrophil cytoplasmic antibodies, prothrombin time, activated partial thromboplastin time, fibrinogen and D-dimer levels were all within normal ranges. A full blood count revealed a normal white cell differential count and mild thrombocytopenia; the latter had been present occasionally at comparable levels for the previous 12 months but had not been investigated earlier. Differential diagnosis of pyoderma gangrenosum, vasculitic ulceration and a cutaneous adverse drug reaction to vaccination was made. Microthrombi within blood vessels, an ischaemic epidermis and fat necrosis of subcutaneous tissue were found in a punch biopsy taken from the edge of an ulcer. He was diagnosed with cutaneous thrombosis associated with skin necrosis related to AZD-1222.

The man was therefore treated with topical clobetasol [clobetasol propionate], neomycin [neomycin sulfate] and nystatin ointment, along with compression bandaging treatment. He experienced slow healing of ulceration following treatment. His second dose of vaccine was switched to COVID-19-Vaccine-Pfizer-BioNTech [Pfizer COVID-19 vaccine], which he received 12 weeks after his first vaccination without complications.

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