

Nivolumab

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Cutaneous small-vessel thrombotic vasculopathy: case report

A 45-year-old woman developed cutaneous small-vessel thrombotic vasculopathy during treatment with nivolumab for metastatic melanoma.

The woman had history of pT1a melanoma and status post wide local excision (8 years ago), was presented to the hospital with painful retiform purpura and associated ulcerations on her extremities and trunk. She was diagnosed with metastatic melanoma four months prior to visit, and started receiving high-dose nivolumab 240mg every 2 weeks [*route not stated*]. After receiving fourth cycle of nivolumab, she experienced painful, dusky, indurated plaques on her breasts, lower portion of the abdomen, proximal parts of the legs and buttocks, covering approximately 30% of her total body surface area. A punch biopsies from the left side of the abdomen revealed epidermal necrosis with coagulative necrosis of small vessels and necrosis of eccrine coils with no visualisation of frank thrombosis of dermal vessels. After 11 days, she returned to the hospital due to original dusky areas had evolved into ulcerations with overlying eschars. The repeat incisional biopsies revealed extensive epidermal and dermal necrosis with an interstitial dermal neutrophilic infiltrate and small-vessel thrombotic vasculopathy. Laboratory tests including PCR for SARS-CoV-2, Factor V Leiden, c-antineutrophil cytoplasmic antibodies/p-antineutrophil cytoplasmic antibodies, prothrombin time/partial thromboplastin time/INR, protein C and S levels, antiphospholipid antibodies, cryoglobulins, cryofibrinogens and complement levels were normal. A peripheral blood smear test did not show schistocytes or any evidence of a hypercoagulable state. Later, repeat blood cultures, tissue stains for bacterial, fungal, and mycobacterial organisms were negative. She did not show evidence of renal compromise or calciphylaxis. Upon investigation, a diagnosis of cutaneous small-vessel thrombotic vasculopathy secondary to nivolumab was made [*time to reaction onset not stated*]. She was hospitalised.

Therefore, the woman's nivolumab was stopped. Later, she was started on apixaban. Subsequently, new lesion formation was stopped and progression of her current lesions halted. However, she experienced progression of melanoma and she was discharged.

Haroon A, et al. Nivolumab associated vasculopathy: A novel mechanism. JAAD Case Reports 22: 8-10, Apr 2022. Available from: URL: <http://www.journals.elsevier.com/jaad-case-reports/>

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