Tozinameran

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Dermatomyositis: case report

A 77-year-old woman developed dermatomyositis following administration of tozinameran for protection against COVID-19.

The woman, who had no prior dermatologic or medical history, presented with weakness, a moderately pruritic and painful eruption, fever and generalised muscle aches. Her eruption was initially observed on the upper right arm, then extended towards chest, left arm and neck. She had received first dose of the tozinameran vaccine [Pfizer-BioNTech COVID-19 messenger RNA vaccine; *route and dosage not stated*] 5 days prior to the symptom onset. At current presentation, further physical examination showed violaceous, poikilodermatous scaly plaques on the anterior aspect of the chest and neck. Additional cutaneous findings included erythematous patches on both of her thighs, multiple vesicles and erythematous papules on the right upper extremity and reticulated. Subsequent lab investigation showed elevated levels of creatinine phosphokinase, ALT and AST. Laboratory tests for tuberculosis, hepatitis B and hepatitis C were negative. Remarkable elevated levels of anti-transcription intermediary factor 1g antibody was noted. Biopsy of the left vastus lateralis muscle showed overexpression of major histocompatibility complex class-I and atrophic fibers organised in a perimysial pattern, suggesting an immune-mediated myopathy of a dermatomyositis type. A punch biopsy specimen of the skin revealed features of interface dermatitis with superficial perivascular mononuclear inflammation and dermal oedema. Basal vacuolar alteration with foci of necrotic keratinocytes was observed on epidermis. Colloidal iron staining highlighted increased dermal mucin. Based on the laboratory findings, clinical presentation and histologic features, a diagnosis of dermatomyositis secondary to tozinameran vaccine was made.

The woman was treated with methylprednisolone for 3 days and immune globulin over 5 days. A significant clinical and laboratory improvement was noted. Her proximal muscle strength was restored and creatinine phosphokinase levels significantly decreased. Then, the treatment was transitioned to prednisone and mycophenolate mofetil. Eventually, a marked improvement in muscle strength was noted. Twelve weeks after the initial presentation, liver enzymes and creatinine phosphokinase levels had normalised.

Wu M, et al. COVID-19 vaccine-associated dermatomyositis. JAAD Case Reports 23: 58-60, May 2022. Available from: URL: http://doi.org/10.1016/j.jdcr.2022.02.023