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Case Report

Eczematous reaction to IVIG for the treatment of dermatomyositis☆,☆☆

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ABSTRACT

The use of high-dose intravenous immunoglobulin (IVIG) is an accepted therapy for patients with refractory dermatomyositis. Cases of eczematous reactions to IVIG have been reported in the literature, but to our knowledge, none in patients being treated for dermatomyositis. We report on the cases of two female patients with refractory dermatomyositis who developed pruritic, scaly pink plaques after receiving high-dose IVIG. This diffuse eczematous skin reaction to high-dose IVIG is a rare adverse event that most often occurs days after administration of therapy. Practitioners should be aware of this entity because the eczematous eruption may be extensive and can commonly worsen with subsequent re-exposure to IVIG.

Introduction

Intravenous immunoglobulin (IVIG) is an accepted off-label immunomodulatory therapy for patients with refractory dermatomyositis (Dalakas et al., 1993). The most common adverse reactions to IVIG are mild and transient, present in approximately one-third of patients, and include fatigue, chills, headache, myalgias, and nausea (Brannagan et al., 1996; Gerstenblith et al., 2012; Kazatchkine and Kaveri, 2001; Orbach et al., 2005). Rare side effects include aseptic meningitis, hemolytic anemia, thrombosis, anaphylactic shock, and acute renal failure (Brannagan et al., 1996; Gerstenblith et al., 2012; Misbah and Chapel, 1993; Orbach et al., 2005; Tan et al., 1993). Cutaneous adverse events can occur in up to 6% of patients, with reports of morbilliform eruptions, pruritus, urticaria, alopecia, and erythema multiforme (Brannagan et al., 1996; Chan-Lam et al., 1987; Gerstenblith et al., 2012; Misbah and Chapel, 1993; Orbach et al., 2005; Rodeghiero et al., 1988; Vecchietti et al., 2006).

Although rare, eczematous eruptions have been described in patients treated with IVIG. The most extensive literature review of eczematous skin reactions to IVIG was conducted in 2011. Of the 64 identified cases, 86% were treated for neurologic diseases (none for dermatomyositis) and the vast majority of eczematous eruptions (77%) occurred within 8 days of treatment (Gerstenblith et al., 2012). We present the cases of two female patients with dermatomyositis who developed eczematous eruptions that appeared after receiving IVIG.

Case 1

A 42-year old woman with a history of dermatomyositis presented to her rheumatologist for a flare up of arthritis, fatigue, and Gottron's papules while on methotrexate 20 mg and long-standing systemic steroids. Methotrexate was discontinued due to pulmonary basilar fibrosis that was evident on a computed tomography (CT) scan, and she was started on IVIG 2 g/kg divided over 2 consecutive days.

Seven weeks after the IVIG infusion, while tapering off of prednisone, the patient developed a pruritic, scaly eruption on the face, trunk, palms, arms, and legs. Her cutaneous symptoms initially improved with topical hydrocortisone. However, 1 week later, this eruption recurred 2 days after receiving the second IVIG course while off of systemic steroids.

On physical examination after the second eruption, the patient had diffuse erythematous scaly plaques on the trunk and the bilateral

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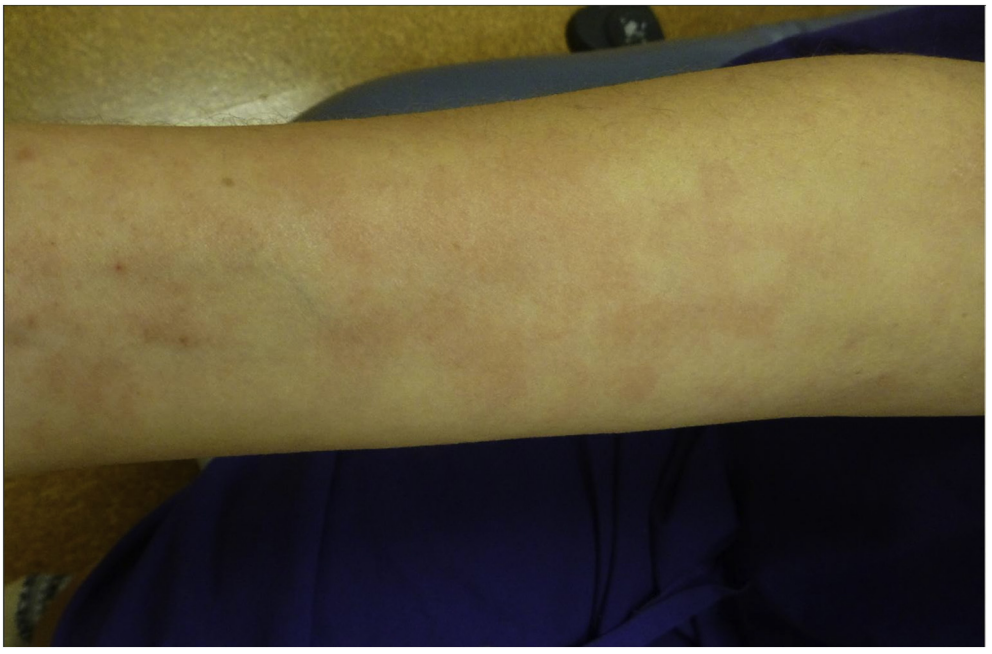

Fig. 1. Eczematous eruption of patient 1: Representative clinical image of right ventral forearm

upper and lower extremities (Fig. 1) as well as mild desquamation on the lips and scaling at the lateral edge of the right palm. Baseline dermatomyositis findings of Gottron's papules over the dorsal surface of the metacarpophalangeal joints were also noted.

The patient reported no further cutaneous reactions after her third and fourth IVIG treatments, which were administered over 4 days and when she was no longer taking systemic steroids. She did experience an improvement in her skin and articular disease.

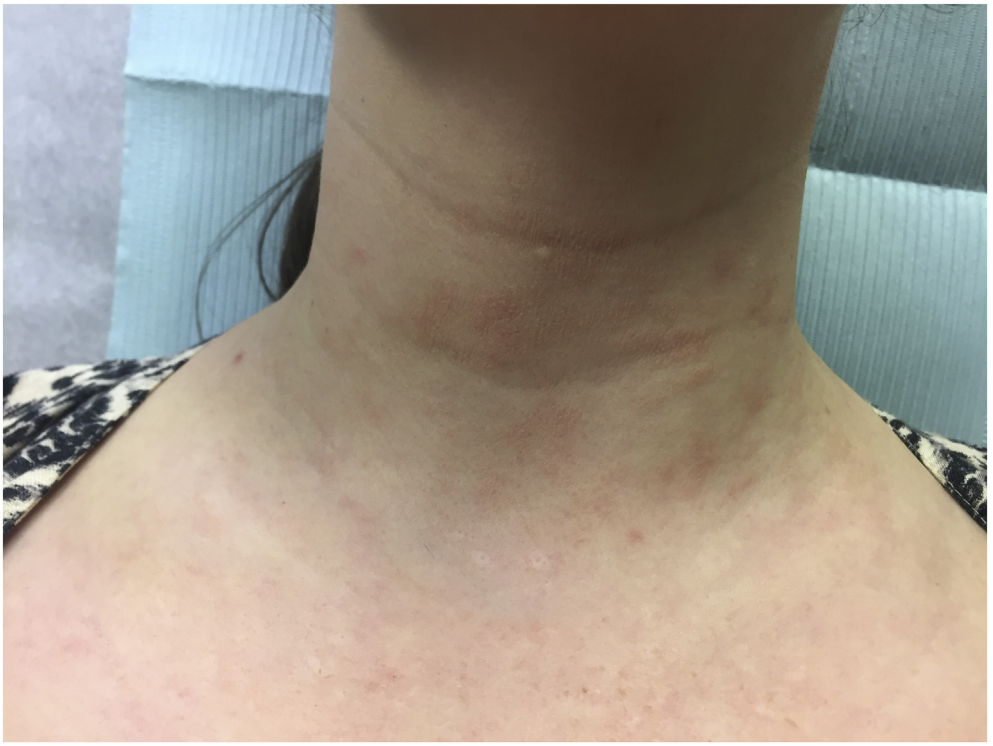

Fig. 2. Eczematous eruption or patient 2: Representative clinical image of left axilla

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