in such situations. However, connubial/consort contact dermatitis is rare and probably underreported. In the literature reviewed, we have not found another case of a patient with sensitization to the DCP used by the spouse.

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Successful treatment of delayed pressure urticaria with montelukast

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Key words: delayed pressure urticaria; leukotriene inhibitors; montelukast.

• Delayed pressure urticaria (DPU) is a type of physical urticaria, characterized by the appearance of painful skin swelling a few hours after application of mechanical pressure. It may be accompanied by systemic signs. Most patients also suffer from chronic idiopathic urticaria (1). Antihistamines are not very effective in the treatment of this disorder. Most patients usually require corticosteroids for prolonged periods and frequently develop undesirable side-effects from these medications.

First case of DPU to be treated with the leukotriene antagonist montelukast.

In this report, we present a patient with severe steroid-dependent DPU which responded to the new antileukotriene agent montelukast (Singulair®). Steroid treatment was subsequently discontinued.

A 45-year-old nurse without an atopic history was healthy until 1992. During her first pregnancy, she had developed deep, erythematous swellings of skin on pressure areas, sometimes accompanied by fever and arthralgia. She also noticed urticarial eruptions on various areas. Skin lesions were not associated with food ingestion. Extensive laboratory evaluation was unremarkable. Skin prick tests with aeroallergens and foods were negative. The standard pressure challenge test performed on her arm was strongly positive. After the diagnosis of DPU was established, she was treated with maximal doses of several antihistaminic agents, including ketotifen, with minimal or transient improvement.

Various combinations of H_1 and H_2 blockers, doxepin, sulfasalazine, tranexamic acid, and colchicine did not improve her condition. An elimination diet for 14 days was ineffective. For the next 3 years, she was treated with monthly betamethazone dipropionate injections and 10–30 mg of cetirizine daily, combined with other antihistamines. Repeated trials to discontinue steroid treatment resulted in immediate exacerbation of pressure urticaria. The patient developed side-effects of chronic steroid therapy, including weight gain, facial acne, and flushing.

As a last resort, montelukast 10 mg a day was initiated. Within 1 week, the urticaria completely resolved. Steroid treatment was tapered off and discontinued with no recurrence of DPU for the following 20 months. Repeated pressure challenge tests were negative. A brief trial to discontinue montelukast resulted in recurrence of urticaria within 3 days. The patient is currently treated with montelukast and cetirizine, 10 mg daily, without suffering any skin lesions.

DPU is a type of physical urticaria, more common than previously thought. In addition, up to 50% of patient with chronic idiopathic urticaria have a pressure component. The pathogenesis of DPU is unknown. The late appearance and prolonged duration of lesions, the associated systemic manifestations, and the poor response to antihistamines are not consistent with the early phase of immediate-type hypersensitivity reaction. These features are more characteristic of the late-phase reaction, in which inflammatory cells and mediators play major role. Cysteinyl leukotrienes (LTC_4, LTD_4, and LTE_4) are potent inflammatory mediators, produced by activated mast cells, basophils, and eosinophils, and in lesser amounts by monocytes, endothelial cells, and platelets. These mediators are smooth-muscle contractors and eosinophil chemoattractants. Intradermal injection of leukotrienes induces wheal and flare reactions (2). Increased levels of LTE_4, the stable metabolite of LTC_4, and LTB_4 were found in cold urticaria patients (3). However, the role of leukotrienes in the pathogenesis of DPU has not been elucidated. The effect of leukotriene inhibitors, the new class of medication for asthma treatment, in urticaria patients has not been extensively studied. Chu et al. reported improvement in eight patients with chronic urticaria treated with zafirlukast (4). Another patient responding to the same medication was described by Spector & Tan (5). Three

more patients with chronic urticaria were successfully treated with zileuton (5, 6).

The patient reported herein is the first case of successful treatment of DPU with the new leukotriene antagonist, montelukast. The late appearance of skin lesions in DPU, the lack of response to antihistamines, and the favorable response to montelukast may reflect the involvement of leukotrienes in the pathogenesis of this disorder. Further studies to elucidate the role of antileukotrienes in DPU and chronic urticaria are required.

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