Urticaria after Administration of Alendronate

Sir,

Biphosphonates have only very rarely been implicated as a cause of adverse skin reactions. Herein we present a case of a *female patient who developed an urticarial rash after the* administration of alendronate.

CASE REPORT

A 38-year-old woman presented with low back pain of a few months' duration. Her medical history included multiple sclerosis, diagnosed 2 years earlier, for which she had been treated with methylprednisolone. She was also receiving suppressive levothyroxine therapy (100 μg/day) for multinodular goiter. Diagnostic work-up included a lumbar spine bone mineral density measurement with dual X-ray absorption (Lunar®) which showed osteopenia at the L_2-L_4 level (T score: −1.8). Urinary collagen N-telopeptides were 45.7 BCE/mM creatinine (normal range: 5–65 bone collagen equivalent /mM creatinine). Treatment with sodium alendronate and calcium was started. She tolerated the calcium well; however, following the first dose of alendronate (10 mg/day) she experienced, within a few hours, pruritus and urticaria. Urticaria produced regions of central blanching and was more noticeable on the upper extremities and the face. The white blood cell count was normal (with polymorphonuclear predominance and normal eosinophils). Total IgE, blood biochemistry and clotting tests were normal. There was no evidence of paraproteinemia and an autoantibody panel (APCA, ASMA, ENA, ANA) was negative. Antihistamines were administered for 1 week and the rash gradually disappeared after 3 weeks. The patient refused a challenge test and did not consent to further assessment with skin testing.

DISCUSSION

Biphosphonates, although frequently present in consumer goods such as toothpaste and soap, have only rarely been implicated—when administered as medications, either parenterally or orally—as causes of adverse skin reactions. Although the exact causal mechanism of the skin manifestations caused by biphosphonates is not known, they are considered to be the result of IgE-mediated responses (1). The long half-life of these medications may render their allergic actions long-lasting (2). Pamidronate, clodronate and radioactive medronate have been reported to cause hives with *pruritus, macular/papular rash and erythema multiforme with* vasculitis, respectively (1, 3, 4). To the best of our knowledge, alendronate has been linked to adverse skin reactions (urticaria) in only one previously reported case, during a rechallenge test of a patient who had previously reacted with hives and pruritus after administration of pamidronate (1). However, in view of the increasing number of women who receive alendronate postmenopausally for the prevention and treatment of osteoporosis, we believe that prescribing physicians should be more aware of this rare adverse effect.

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