

Cutaneous vasculitis induced by risedronate

H. Belhadjali*, R. Slim, K. Aouam, M. Youssef, J. Zili

Key words: adverse drug reaction; bisphosphonates; cutaneous vasculitis; risedronate.

Risedronate is an orally administered pyridinyl bisphosphonate that inhibits osteoclast-mediated bone resorption and modulates bone metabolism (1). It is licensed for the prevention and treatment of osteoporosis, as well as for treatment of Paget's disease (1). Cutaneous reactions to this medication are exceptional (2, 3). We report here the first case of vasculitis related to risedronate therapy.

A 72-year-old woman with postmenopausal osteoporosis started treatment with risedronate (Actonel®; Procter Gamble Pharmaceuticals, Nanterre, France) 35 mg orally/week. Three weeks later, the patient noticed the onset of an eruption on her legs and was referred to the department of dermatology for investigation. Physical examination revealed multiple infiltrated purpuric plaques on both legs. There were no physical signs suggesting clinical evidence of connective tissue or other systemic disease. A skin biopsy showed perivascular infiltrates of neutrophils and eosinophils with nuclear dust. There were extravasated red blood cells and fibrin deposition around some vessels. These findings were consistent with leukocytoclastic vasculitis. Direct immunofluorescence of perilesional skin was negative. All laboratory tests

We report the first case of cutaneous vasculitis induced by risedronate.

performed [complete blood cell count, C reactive protein, creatinine, liver function panel, hepatitis B and C virus serologies, serum protein electrophoresis, proteinuria, antinuclear antibody, ANCA, cryoglobulins, complement levels (CH50, C3, C4), and rheumatoid factor] were unremarkable. Risedronate was withdrawn and skin lesions resolved within 2 weeks. Three months later and despite our recommendations, the woman took again risedronate. One day after restarting therapy, an acute episode of cutaneous vasculitis was developed, and she was readmitted to the hospital. A new skin biopsy showed leukocytoclastic vasculitis and direct immunofluorescence of perilesional skin was always negative. Repeated laboratory tests remained unremarkable. Risedronate was stopped and 3 weeks after discontinuation, the patient was clear of all lesions. There was no relapse during a follow-up period of more than 2 years. Thus, the diagnosis of risedronate-induced cutaneous vasculitis was established.

Vasculitis is inflammation of vessel walls that can occur secondary to many conditions, including drug intake, infection, malignancy, inflammatory disease, and connective tissue disease (4). Several drugs from different pharmacological classes have been associated with cutaneous vasculitis (4). Adverse cutaneous drug reactions to bisphosphonates are very rare (2, 3) and are mostly reported with alendronate (5–8). In our case, the diagnosis of risedronate-induced cutaneous vasculitis was confirmed by the lack of other triggers of cutaneous vasculitis and mainly by the positive systemic re-exposition to the drug which remains the gold standard for the diagnosis. To the best of our knowledge, our case is considered to be the first reported case of cutaneous vasculitis induced by risedronate. Thus, physicians should be aware of potential

severe drug reactions when prescribing risedronate.

*Department of dermatology
Fattouma Bourguiba Hospital
Monastir 5000
Tunisia
Tel.: +21673461144 ext. 1290
Fax: +21673460678
E-mail: belhadjalihichem@yahoo.fr

Accepted for publication 23 May 2008

Allergy 2008; 63:1405

© 2008 The Authors

Journal compilation © 2008 Blackwell Munksgaard

DOI: 10.1111/j.1398-9995.2008.01836.x

References

1. Umland EM, Boyce EG. Risedronate: a new oral bisphosphonate. *Clin Ther* 2001;**23**:1409–1421.
2. Barrera BA, Wilton L, Harris S, Shakir SA. Prescription-event monitoring study on 13,164 patients prescribed risedronate in primary care in England. *Osteoporos Int* 2005;**16**:1989–1998.
3. Anastasilakis AD, Goulis DG, Kita M, Avramidis A. Oral bisphosphonate adverse effects in 849 patients with metabolic bone diseases. *Hormones (Athens)* 2007;**6**: 233–241.
4. Fiorentino DF. Cutaneous vasculitis. *J Am Acad Dermatol* 2003;**48**:311–340.
5. Kontoleon P, Ilias I, Stavropoulos PG, Papapetrou PD. Urticaria after administration of alendronate. *Acta Derm Venereol* 2000;**80**:398.
6. García Ortega P, Carrascal Martín M, Herrero Baladrón M, Pérez Martín R. Toxicoderma associated with alendronate. *Aten Primaria* 2002;**29**:61–62.
7. Kimura M, Kawada A, Murayama Y, Murayama M. Drug eruption due to alendronate sodium hydrate. *Contact Derm* 2003;**48**:116.
8. Brinkmeier T, Kügler K, Lepoittevin JP, Frosch PJ. Adverse cutaneous drug reaction to alendronate. *Contact Derm* 2007;**57**:123–125.