

Stevens–Johnson syndrome due to mirtazapine – first case

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To our knowledge, this is the first case of SJS because of mirtazapine intake.

Stevens–Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are considered part of a spectrum of adverse cutaneous drug reactions showing severe and extensive skin detachment, usually associated with drug intake, especially allopurinol, carbamazepine, lamotrigine, phenobarbital, phenytoine, sulfamethoxazole, oxicams and nevirapine. Rare cases involving antidepressant psychotropics have been observed (1).

Norset® (mirtazapine; Organon SA, Puteaux, France), is an antidepressant, which increases noradrenergic and serotonergic neurotransmission in the central nervous system.

A 29-year-old man with no past medical history except depressive syndrome was referred to our clinic for a disseminated pruritic eruption with confluent red macules and bullous lesions for 7 days. He was treated for a depressive syndrome with a 15-mg/day dose of mirtazapine for 1 month and took no other, even episodic, medicine.

Physical examination revealed confluent macules with blisters and erosions involving 10% to 15% of the body surface area with severe oral and genital

erosions. We noted a deterioration of the general status, a weight loss of 5 kg for 1 week and the absence of fever.

Laboratory evaluation showed an inflammatory syndrome with an increased CRP level (27 mg/l, normal value < 3), normal blood count without hypereosinophilia. Liver, renal, pancreatic and thyroid functions, chest X-ray were normal. Serological tests were negative for human immunodeficiency virus (HIV), hepatitis B and C, cytomegalovirus (CMV), chlamydiae and mycoplasma IgG antibodies were positive and were negative for Epstein–Barr virus (EBV) and herpes simplex virus (HSV).

Results of routine bacteriologic and virologic cultures of cutaneous samples were negative. The clinical diagnosis was confirmed by a skin biopsy showing full-thickness necrosis of the epidermis. The patient's lesions improved clearly after 1 week of symptomatic management with topical corticosteroids.

Three months after the acute episode, epicutaneous patch tests were performed with Norset® prepared pure, at 30% in petroleum and water (2). They were negative after 48 h, 72 h and 1 week.

It is well known that sensitivity of patch testing in SJS and TEN is not very high, about 13.5% (3). Provocation tests are of course not indicated because re-exposure is likely to elicit a new episode of SJS/TEN of increased severity.

The intrinsic score of imputability of mirtazapine, according to the French pharmacovigilance criteria was 'C2S2' with a « suggestive » causal link (4). Mirtazapine is derived from mianserin (Athymil®; Organon SA) and showed chemical structural similarities with other psychotropic drugs, such as clozapine (Leponex®; Novartis Pharma SAS, Rueil-Malmaison, France), and tricyclic antidepressants. Therefore, we prohibited for the patient mirtazapine but also

mianserin, clozapine and tricyclic antidepressants.

To our knowledge, this is the first case of SJS because of mirtazapine intake. In spite of numerous side-effects such as increased appetite, vivid dreams, weight gain, drowsiness, dizziness, headache, cutaneous drug reactions induced by mirtazapine are very rare (5).

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