

Stevens-Johnson syndrome caused by cefepime?

Sir,

We report the clinical case of an 82-year-old man who was seen at his home for a sudden eruption of facial bullous lesions. From the case history, we learned that the patient, who suffers from hypertension and chronic vascular encephalopathy, had been admitted to hospital on 14/11/2013 with fever, and initial tests showed signs of bacteriuria.

During admission, the patient was started on a first antibiotic intravenous course of piperacillin + tazobactam, 4.5 g twice per day, with a rapid improvement in clinical conditions and the abating of the fever. The therapy was then substituted by cefepime, 2 g three times per day via intramuscular administration, in order to allow for continuation of the therapy at home.

He was discharged from hospital on 22/11/2013 with instructions to continue the treatment of cefepime at a dosage of 1 g twice a day. The same evening, immediately after the first dose of cefepime, the patient presented bullous lesions which had become very painful in a few hours; he received further two doses. Upon request for our consultation the next morning, we observed periorificial dermatitis, oral and nasal mucus, various eroded areas, and serous lesions and others with serous and blood scabs [Figure 1]. The patient complained of dysphagia, which allowed us to hypothesize a contemporary involvement of the pharyngeal mucosa.



Figure 1: Eroded lesions

The clinical-dermatological picture and medical history allowed us to make an initial diagnosis of Stevens-Johnson syndrome (SJS), likely triggered by the administration of cefepime.

SJS is a severe reaction to immunocomplex-mediated hypersensitivity, with a particular muco-cutaneous focus, which is attributable to the intake of medication in more than 80% of cases.^[1] Various categories of medication have been identified as triggers for SJS, like non-steroidal anti-inflammatory drugs (paracetamol, nimesulide), anti-epileptic drugs (phenytoin, carbamazepine, valproic acid) and antibiotics (penicillin, tetracycline, cephalosporin).^[2]

Until today no cases have been reported regarding the onset of SJS by cefepime,^[3] fourth-generation cephalosporin having a larger action spectrum, which is used in case of infection resistant to other forms of cephalosporin. Indicated for the treatment of infections in the lower respiratory tract, the genitor-urinary and pelvic tracts, skin and soft tissues, intra-abdomen and febrile states in immune-compromised patients, it is generally a well-tolerated drug with the most commonly reported adverse events being gastrointestinal (nausea, colitis, vomiting, diarrhea), neurological (cephalea) and cutaneous, or due to hypersensitivity like rash, itchiness and urticaria.

Other than urticaria, among the skin conditions caused by cefepime described in scientific literature, red man syndrome,^[4] acute generalized exanthematous pustulosis^[5] and the case of SJS to which we make reference, induced by phenytoin and exacerbated by cefepime,^[6] can be found.

Our case, therefore, seems to be first case in which SJS was triggered by cefepime, a hypothesis that was confirmed by the prompt resolution of the clinical status following the suspension of the drug and systemic methylprednisolone, 4 mg three times per day, and topical therapy with a fusidic acid 2% + hydrocortisone acetate 1% - based cream, three times per day. In consideration of the age of the patient and the issues related to elderly age, we cannot exclude the interference of other factors, such as the interaction between drugs or insufficient excretion playing an important role in the onset of skin reactions.

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