LAMOTRIGINE-INDUCED STEVENS-JOHNSON SYNDROME IN A PEDIATRIC PATIENT WITH TAKAYASU ARTERITIS: THE STEROID PARADOX

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Abstract. Stevens-Johnson syndrome (SJS) is a severe immune-mediated cutaneous adverse reaction characterized by epidermal necrosis and erosive mucosal lesions. The management of such patients in pediatric practice is significantly complicated by the presence of severe comorbidities, notably Takayasu arteritis, which necessitates intensive systemic immunosuppression. This report describes a rare case of SJS in a 9-year-old girl with generalized epilepsy and granulomatous vasculitis, which developed during high-dose systemic glucocorticoid therapy.

Case Presentation. The patient was admitted with newly diagnosed Takayasu arteritis. To induce remission of the vasculitis, intravenous methylprednisolone pulse therapy was administered, followed by a transition to a maintenance oral dose of 24 mg/day, achieving clinical and laboratory stabilization. Subsequently, her antiseizure therapy was modified: valproic acid and levetiracetam were completely discontinued in favor of lamotrigine monotherapy. Lamotrigine was titrated according to a standard regimen; however, given the metabolic interactions between valproate and lamotrigine, this resulted in a prolonged half-life of lamotrigine. Due to an inadequate pharmacokinetic washout period, the patient developed a generalized maculopapular exanthema on day 15 of lamotrigine administration. Over the following three days, the condition progressed to SJS, with epidermal detachment involving up to 10 % of the body surface area (BSA), accompanied by leukocytosis and elevated D-dimer levels. Immediate discontinuation of lamotrigine, short-term dexamethasone pulse therapy, and the topical application of probiotic agents based on *Bacillus* spp. spores successfully arrested the necrolysis and promoted rapid epithelialization of the erosions.

Conclusions. Background therapy with systemic glucocorticosteroids does not prevent the onset of severe cutaneous adverse reactions but dangerously masks prodromal signs, illustrating the "steroid paradox". Transitioning a pediatric patient from valproic acid to lamotrigine requires a prolonged metabolic washout period to avoid severe competitive inhibition of glucuronidation enzymes and toxic drug accumulation. Topical probiotics incorporating *Bacillus* spp. spores demonstrate high efficacy and safety in promoting epidermal barrier repair and preventing secondary bacterial infections in erosive dermatoses.

Key words: Stevens-Johnson syndrome, lamotrigine, Takayasu arteritis, glucocorticosteroids, *Bacillus* spp., pediatrics.