Carbamazepine induced Stevens-Johnson syndrome

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DESCRIPTION

A 36-year-old Sri Lankan man had a 10-year history of epilepsy, which was well controlled on sodium valproate. Having run out of his regular medication on vacation, he started taking his

sister's carbamazepine. He presented to the emergency department 9 days later with general malaise and widespread blisters. On examination, he was febrile, tachycardic and had centrally blistered targetoid skin lesions (figure 1), and pronounced oral and genital mucosal ulceration (figure 2). This was consistent with a diagnosis of Stevens-Johnson syndrome (SJS), a drug-induced dermatological emergency on a continuum with toxic epidermal necrolysis (TEN).

Common precipitants of SJS include anticonvulsants, antibiotics (notably sulfonamides), allopurinol and non-steroidal anti-inflammatory drugs. The mainstay of management is stopping the offending agent and meticulous supportive care. Active interventions including systemic corticosteroids, intravenous immunoglobulin and ciclosporin have been tried in patients with SJS–TEN, but the evidence for benefit is inconclusive.¹ In patients of

Figure 1 Blistering targetoid lesions on the trunk.

Learning points

- ▶ Carbamazepine is associated with Stevens-Johnson syndrome/toxic epidermal necrolysis in carriers of the human leucocyte antigen (HLA) B*1502 gene.
- ▶ The HLA B*1502 gene is most frequently found in Asian populations (Indians, Han Chinese, Thais and Malays) and these individuals should undergo genetic screening prior to the start of either carbamazepine or phenytoin.

Figure 2 Oral and mucosal ulcerations.

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Asian Indian descent, possession of the human leucocyte antigen (HLA) B*1502 allele is strongly associated with carbamazepine induced SJS or TEN.² Genetic testing for this haplotype is recommended prior to prescription in Asian populations with high carrier frequency (Indians, Han Chinese, Thais and Malays) as HLA B*1502 is also linked to SJS/TEN induced by phenytoin.^{2 3}

Contributors AK performed the literature review, wrote the final draft and submitted the document for publication. FA was involved in writing the initial as well as final drafts and proofread the drafts for accuracy. ZZNY wrote the initial draft of the article. JF is the consultant in charge of the patient who initiated the idea of this publication.

Competing interests None declared.

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