

Adverse drug reaction after intravitreal injection of topotecan

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Figure 1: Clinical picture of face 24 hours after intravitreal injection Topotecan showing toxic drug reaction in the form of erythema multiforme with exudation on both eye lids and haemorrhagic crust on the lower lip

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The World Health Organization (WHO) definition of adverse drug reaction (ADR) is “a response to a drug, which is noxious and unintended and which occurs at doses normally used in man for prophylaxis, diagnosis, or therapy of disease or the modification of physiologic function.”^[1,2] To the best of our knowledge, this is the first case report of ADR after intravitreal topotecan.

A 3-year-old female with unilateral Group D retinoblastoma as per international classification,^[3] was injected periocular topotecan (1 mg in 0.1 ml) owing to persistent vitreous seedings



Figure 2: Anterior segment picture of diffuse corneal haze, epithelial defect and limbal ischaemia patch

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after high dose chemotherapy. At 3-weeks follow-up, there was a marked decrease in vitreous seedings and topotecan was repeated intravitreally in the dose of 20 µgm in 0.1 ml. The patient developed fever and lid swelling within 24 hours of the injection, which worsened over the next three days. She also developed target lesions on skin consistent with erythema multiforme and exudation on both eyelids, oral ulcerations, and hemorrhagic crust formation on lips [Fig. 1]. The cornea revealed total epithelial defect with a stromal haze [Fig. 2]. The systemic work-up was unremarkable.

The skin rash responded to oral wysolone (10 mg/kg) and topical steroids, antibiotics, and antihistaminics for 1 week. The cornea re-epithelized at 2 weeks. Her fundoscopy at 4 weeks showed the resolution of vitreous seeds.

Discussion

ADRs can be pharmacological or idiosyncratic. In idiosyncratic rash, there is deposition of immune complexes (mostly IgM-bound complexes) in the superficial microvasculature of the skin and oral mucous membrane after the drug exposure.^[4] In the present case, the hypersensitivity reaction was seen after the second injection of the drug while the first injection was well tolerated and possibly led to the formation of antibodies to the drug, which manifested within a day of the second injection.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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