Antibacterials/antineoplastics

S

Eye disorders: case report

A 78-year-old man developed conjunctivitis and corneal toxicity in the form of bilateral corneoscleral ulceration and corneal perforation of the left eye following misuse of fluorouracil for conjunctival intraepithelial neoplasia (CIN). Additionally, he developed corneal epithelial defects following treatment with neomycin/polymixin-B/dexamethasone for conjunctivitis, and descemetocele and anterior stromal scarring following misuse of prednisolone acetate [*not all routes and dosages stated; duration of treatments to reactions onsets not stated*].

The man, who had a history of open angle glaucoma, was hospitalised due to bilateral, progressive conjunctival lesions. Investigations revealed the diagnosis of CIN. He started receiving topical drops of fluorouracil [5-flurouracil] 1% biweekly cycles of 4 times in a day for 1 week followed by holiday of a week. Thereafter, he had clinical regression of CIN. Due to COVID-19, he missed 1 month follow-up. During this month, he misused fluorouracil. He started receiving an additional biweekly cycle of fluorouracil. He was found to have conjunctivitis and corneal toxicity in the form of bilateral corneoscleral ulceration and corneal perforation of the left eye associated with misuse of fluorouracil.

The man was therefore treated with artificial tears dosed 4 times a day and topical drops of neomycin/polymixin-B/dexamethasone [neomycin-polymyxin-dexamethasone] 0.1% dosed 3 times. Three weeks later, he developed small bilateral corneal epithelial defects associated with neomycin/polymixin-B/dexamethasone. His therapy with neomycin/polymixin-B/dexamethasone and fluorouracil was discontinued. He was therefore treated with ciprofloxacin with slight clinical improvement. In the following week, his epithelial defects progressed to 100 and 80% in the right and left eye, respectively. Thereafter, bandage contact lenses were discontinued with replacement of amniotic membrane rings. After 5 days, sterile corneoscleral ulceration was observed in both eyes, in addition to recurrent CIN in left eye. He started receiving doxycycline and prednisone. After 3 days, he underwent excision of the conjunctival lesion with cryotherapy of left eye and bilateral amniotic membrane placement. Pathology of lesion suggested squamous cell carcinoma. Over two months, his amniotic membrane rings replaced for several times. It resulted in improvement in ulcers. In the following 2 weeks, he started receiving topical drops of prednisolone acetate 1% four times in a day on his own. Thus, misuse of prednisolone acetate was considered. At follow up, new descemetocele and anterior stromal scarring were observed in the left and right eye, respectively. It was considered to be associated with misuse of prednisolone acetate. His therapy with prednisolone acetate was discontinued and the dose of prednisone was increased, in addition to empirical valacyclovir. Further investigations were unremarkable, including negative reports of RT-PCR for SARS-CoV-2 infection. After 4 days, descemetocele were perforated and he underwent 7.5mm penetrating keratoplasty. Histopathology revealed acute focal inflammation without dysplasia, bacteria and fungi. At 6 month follow up, ulcer did not recur. However, he had recurrence of CIN treated with complete excision and cryotherapy.

Lin WV, et al. A case of sight threatening complications from topical 1% 5-fluorouracil in the treatment of ocular surface squamous neoplasia. American Journal of Ophthalmology Case Reports 25: Mar 2022. Available from: URL: http://www.journals.elsevier.com/american-journal-of-ophthalmology-case-reports 803638416