Unusual complication associated with a subconjunctival injection of Soframycin

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Case report

An 11-day-old infant with bilateral buphthalmos was admitted to Moorfields Eye Hospital. Examination under general anaesthesia showed that the corneal diameter was 11 mm. in both eyes. The intraocular pressure (Schiötz) was 40 mm. Hg in the right eye and 45 mm. Hg in the left. At this time small yellow scaly plaques were noticed lying between the lashes. A culture taken 24 hours previously was sterile. It was decided to proceed with goniotomy and to give prophylactic subconjunctival Soframycin at the end of the operation.

The anterior chamber could not be seen because of corneal oedema so the corneal epithelium was removed. The technique for removal of the epithelium was to touch it with a cotton-wool swab soaked in absolute alcohol; the epithelium was then scraped off with a No. 15D blade on a Bard Parker scalpel. Bilateral goniotomy was performed using separate instrument trolleys. A subconjunctival injection of 50 mg. Soframycin (Framycetin sulphate) was given to each eye.

The Soframycin 500 mg. was in powder form and dissolved in 2.5 ml. distilled water taken from a fresh ampoule; 0.25 ml. of this solution was injected subconjunctivally and after each injection the lids were closed. A final examination of each eye was made and both corneae were found to be opaque (Figs 1 and 2). The corneae were examined with the slit on the operating microscope and, although it was difficult to see through the opacity, one had the impression that it was confined to the superficial stroma. There was no alteration in the intraocular pressure.

FIG. 1 Right eye after injection of Soframycin

FIG. 2 Left eye after injection of Soframycin

The infant was returned to the ward and one hour later both corneae had cleared.

Discussion

Experimenting with the remainder of the solution of Soframycin and absolute alcohol, it was found that when a few drops of the two were mixed the solution went cloudy white. It was assumed, therefore, that some of the absolute alcohol used to remove the epithelium had remained in the corneal stroma and Bowman's membrane and that it had caused the Soframycin, which had regurgitated from the conjunctival injection site, to be precipitated.

Summary

The cornea of each eye became temporarily opaque after the injection of Soframycin, following bilateral goniotomy, absolute alcohol having been used to remove the corneal epithelium.

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