

Anterior Segment

TOPICAL INSULIN FOR NSAID ASSOCIATED POST-OPERATIVE KERATOLYSIS – A CASE REPORT

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PURPOSE

Topical non-steroidal anti-inflammatory drugs (NSAIDs) are widely used in ophthalmology, most commonly in the post operative of cataract surgery. While usually well tolerated, rare side effects, such as decreased corneal sensitivity, keratolysis and corneal melting have been described. Insulin can be effective in the treatment of neurotrophic ulcers and persistent epithelial defects due to its effect in epithelial proliferation and inhibition of autophagy and mitophagy. In this report we present a case of NSAID-related keratolysis after cataract surgery with positive response to topical insulin.

METHODS

Observational case-report.

RESULTS

A 79-year-old man underwent right eye cataract surgery. Medical history comprised rheumatoid arthritis and rosacea.

The first day post operatively revealed moderate blepharitis and superficial punctate keratitis; topical dexamethasone, ketorolac, ofloxacin, oral doxycycline were started. One week later there was more intense keratitis and a painless, paracentral ulcer. Given the timeline, NSAIDs toxicity was assumed, ketorolac was stopped and a soft-bandage contact lens was applied. Over the following two weeks, the corneal ulcer did not show signs of improvement. Due to the refractory hyposthetic ulcer topical insulin was initiated. Over the course of the following weeks significant improvement was observed, with complete re-epithelization of the ulcer bed.

CONCLUSIONS

Acute post-operative keratolysis might be precipitated by NSAIDs, particularly in patients with ocular and systemic inflammatory diseases. Topical insulin induces epithelial cell proliferation, promotes healing and may prevent further melting or perforation.