

# Refractive surgery case

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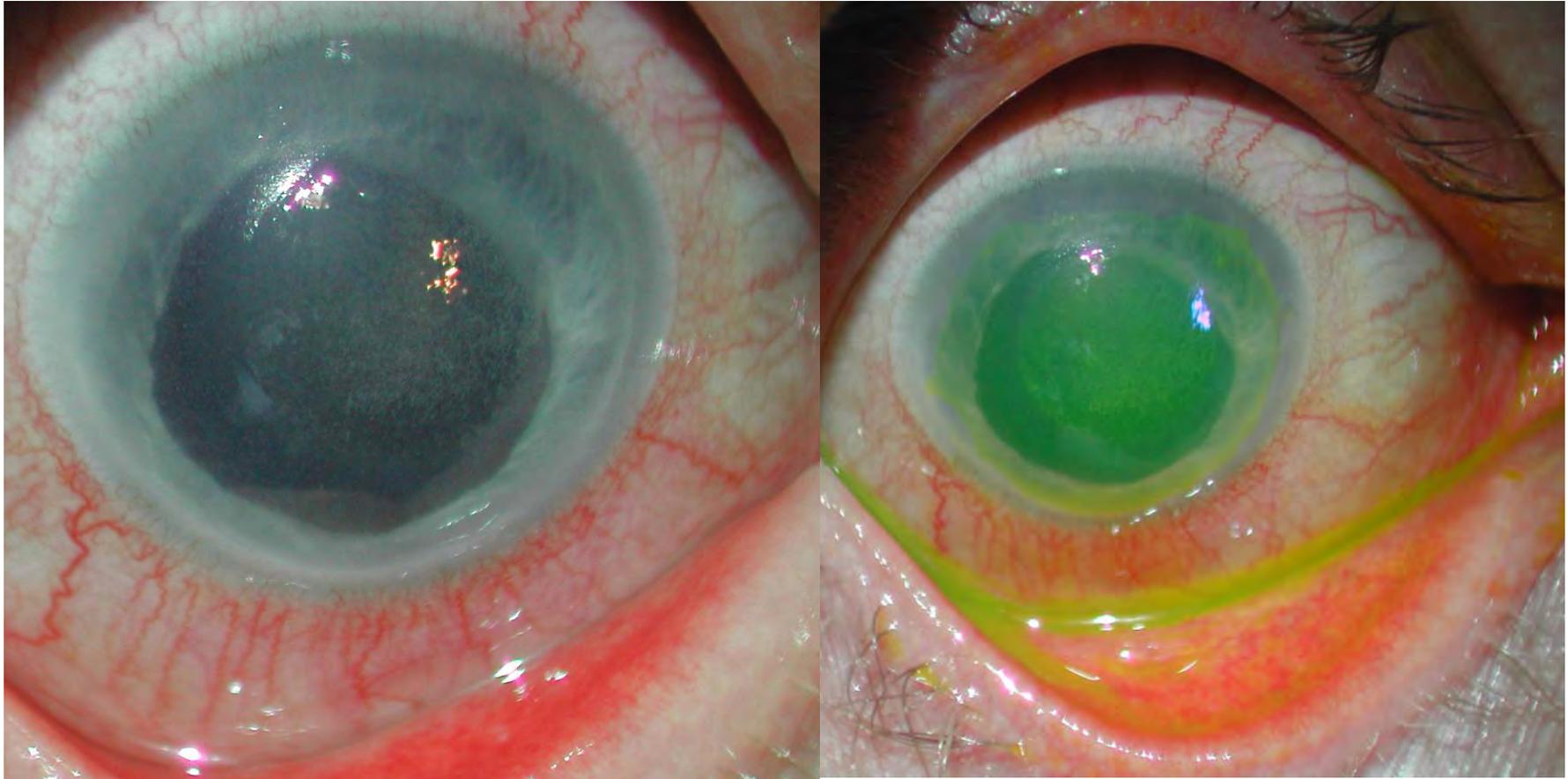
30 y/o underwent bilateral PRK -8 months:

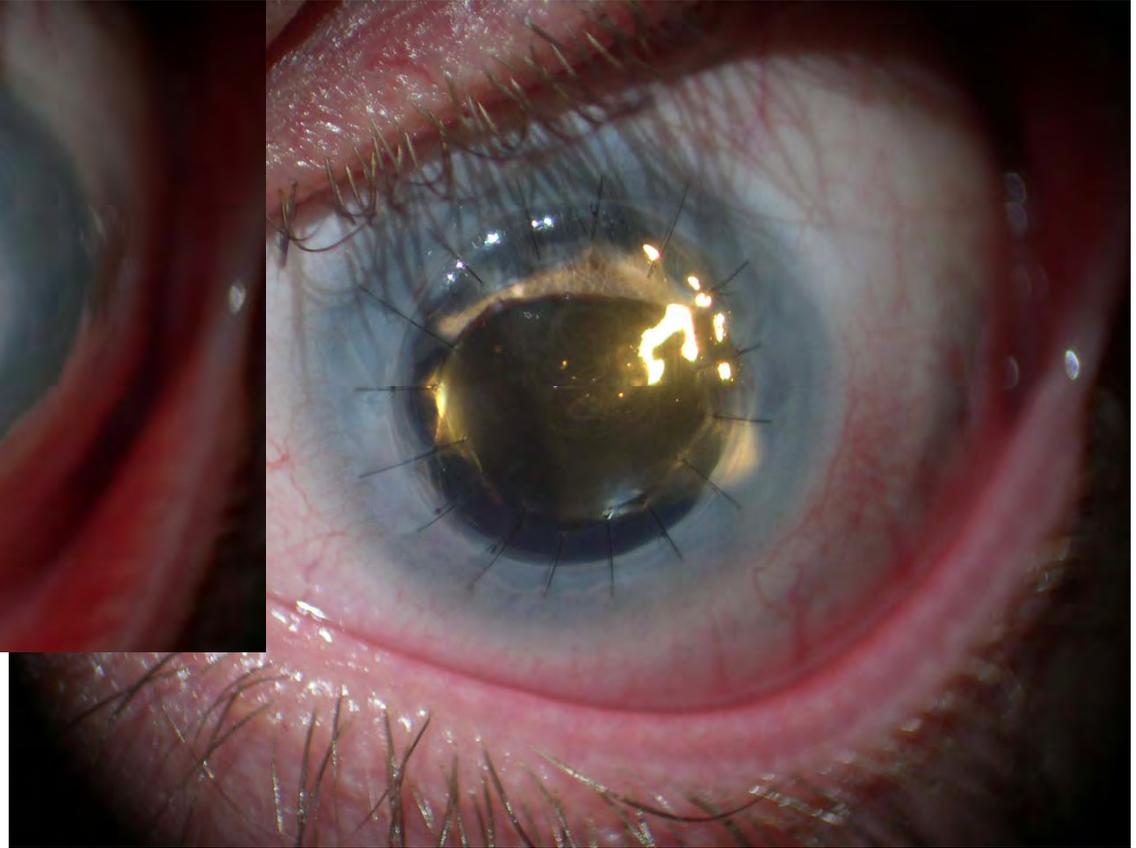
- During this time, the patient's vision deteriorated, and he came to our practice for a second opinion. At this time, he was using exocin (ofloxacin) and dexamethasone(Maxidex;everyhour, Tobradex and ketorolac tromethamine, NaCl 5%, four times daily, and an unknown special solution prescribed by the treating doctor.

# Case (continued)

- Five months later, the patient's vision was at counting fingers, with both eyes presenting photophobia and pain. Figures 1 and 2 reveal a 90% epithelial defect,
- corneal haze, an opaque crystalline lens, and significant iris ectropion with correctopia toward 6–o'clock.
- What course of action would you take to address
- this patient's serious complications?

# Figures 1 & 2





# Discussion

To address this patient, we first had him discontinue all medication. Next, we started him on preservativefree prednisolone acetate 1% and homologous serum (prepared at his local hematology lab) every hour. The patient used this treatment for almost 2 months until the injection subsided and the epithelium healed.

The patient was left with a scarred cornea and dense cataract in both eyes (Figure 3), but I believe that penetrating keratoplasty combined with cataract extraction will sufficiently rehabilitate this patient's vision.

# Discussion 2

When I was training in the early 1990s in inner-city hospitals in New York, I encountered numerous patients with similar epithelial toxicity. The cause in these cases, however, was not PRK, but crack cocaine abuse. We learned that the toxic fumes from smoking crack irritated the cornea, but also offered analgesia. Some patients started using cocaine topically on their eyes and developed severe epithelial toxicity and eventually, perforation.

Topical anesthetic abuse has the same damaging potential, and clinicians should be extremely scrupulous in their use of topical anesthetics in PRK patients.

Patients with chronic epithelial toxicity should be questioned about anesthetic abuse or self-medicating with another toxic agent. ■