Background and importance Fungal keratitis is an infection of the cornea caused by fungi. The clinical symptoms include pain, secretions, blurred vision and photophobia. They are usually caused by the genus of filamentous fungi Aspergillus, Fusarium and Penicillium. Conventional treatment combines topical natamycin, voriconazole and moxifloxacin, in addition to oral voriconazole. Nevertheless, therapy for those refractory to treatment is not clear.

Aim and objectives We present a case of filamentary keratitis caused by Fusarium in a contact lenses wearer. The inefficacy of conventional treatment, together with the deep location of the infection, led to a search for therapeutic alternatives, opting for intracameral and intrastromal voriconazole injection at 0.05%. The efficacy of the preparation was evaluated.

Material and methods Voriconazole syringses 0.5 mL were prepared at a concentration of 0.05%. In a vertical laminar flow hood, the 200 mg voriconazole vial was reconstituted with 19 mL of water for injection (solution of 10 mg/mL). Physiological serum (19 mL) was loaded into a 50 mL syringe and 1 mL of water for injection (solution of 10 mg/mL). A 0.2 μm filter was adapted and 0.5 mL added to a 1 mL syringe. The reconstituted vial and preparation were stable after 24 hours at 2–8°C.

Efficacy was evaluated with the following criteria: abscess size, hypopyon level (fibrin and leucocytes in the anterior chamber) and tyndall (inflammatory cells in the anterior chamber).

Results A 34-year-old man, a contact lenses wearer, was diagnosed with Fusarium infection. He was refractory to conventional treatment and was started on therapy with intrastromal and intracameral injections of voriconazole 0.05%. The patient received three doses. The response obtained was satisfactory, progressively decreasing the size of the abscess, the level of hypopyon and tyndall. Resolution of the infection was achieved in a period of 2 months. The patient has been progressively reducing the topical antibiotic and antifungal treatment, and currently all medication has been withdrawn.

Conclusion and relevance Compared with several published studies in which the use of 0.05% and even 1% intracameral voriconazole showed no efficacy for the treatment of Fusarium keratitis, our experience with this case demonstrates that it is an effective strategy which accelerate the resolution of the infection and prevents further complications.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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