# Cannula aspiration technique for anteriorly migrated intravitreal dexamethasone implant

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## Introduction

0.7mg Intravitreal dexamethasone implant is used in ophthalmology to deliver sustained-release dexamethasone to the retina. It is highly effective in managing conditions such as diabetic macular oedema, macular oedema secondary to branch or central vein occlusion, and non-infectious uveitis affecting the posterior segment. While effective, it can rarely migrate to the anterior chamber, risking corneal damage and increased intraocular pressure (IOP).

This case report details a 73-year-old male with anterior chamber migration of a dexamethasone implant, causing corneal oedema and severe vision impairment. A minimally invasive aspiration technique using an 18G Venflon cannula was employed for implant removal, offering a safe and effective intervention.

## Case Presentation

**Presenting Complaint:**

A 73-year-old male presented with severe pain and blurred vision in his right eye following a dexamethasone implant for recurrent cystoid macular oedema (CMO) 13 days prior. Examination revealed implant migration to the anterior chamber, causing corneal oedema and right eye vision reduction to 1/60.

**Patient history:**

The patient has no significant medical history but does have an important ophthalmic history. This includes bilateral cataract surgery in 2014, followed by a pars plana vitrectomy with intraocular lens (IOL) exchange in 2023 due to right IOL dislocation. Postoperatively, he developed recurrent CMO, which was eventually managed with an intravitreal dexamethasone implant.

**Treatment:**

The patient was taken to theatre the same day to have the implant surgically removed.

## Surgical Technique

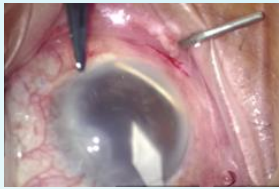

*Figure 1: Temporal corneal incision.*

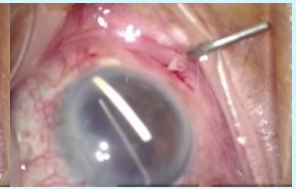

*Figure 2: Intracameral cohesive ophthalmic viscoelastic device insertion.*

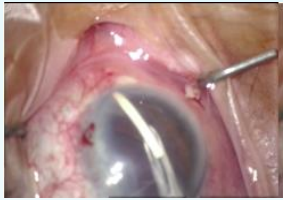

*Figure 3: Aspirating the implant.*

*Figure 4: Complete aspiration of the implant.*

**Technique:**

Under sub-tenon anaesthesia, a 2.2 mm corneal incision *(figure 1)* was made. Intracameral pilocarpine and a cohesive ophthalmic viscoelastic device (OVD) were used to mobilize the dexamethasone implant *(figure 2)*. The implant was aspirated through the incision using a shortened 18G Venflon cannula *(figure 3+4)*, minimizing tissue manipulation and reducing the risk of implant fracture.

## Outcome

Postoperatively, the patient showed improved visual acuity and reduced corneal oedema. Visual acuity increased to 3/60, with further corneal recovery anticipated. Additional management with sodium chloride eye drops addressed transient morning vision complaints.

## Discussion and Conclusion

The aspiration technique proved to be a cost-effective and minimally invasive approach, with low risk of corneal damage and implant fracture. If corneal endothelial damage is too severe from the dexamethasone implant, then further intervention may still be required e.g. corneal transplant.

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