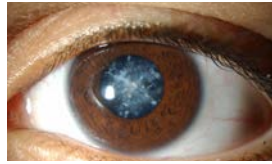


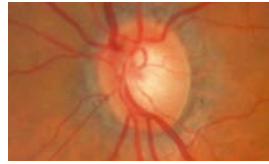
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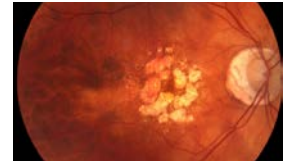
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CATARACT



GLAUCOMA



DISEASES OF THE  
EYE

# CATARACT CASE NOTES



## Case History

Mrs SN, a 76 year old underwent routine left cataract surgery for moderate nucleosclerotic cataract. Pre-operative corrected acuity was 6/9. At the 2 week post-operative visit, acuity in the same eye was 6/12. The eye is white, cornea clear, anterior chamber quiet, intra-ocular lens well positioned within the bag, fundus examination is normal. A routine post-operative macular optical coherence tomography (OCT) shows a normal retina profile with no cystoid macula oedema. Pachymetry reveals a central corneal thickness of 578 microns in the operated eye compared to 533 microns in the contra-lateral eye.

Without intervention, the left central corneal thickness reduced to 538 microns over the following 6 weeks. The patients vision improved to 6/6.

Corneal oedema is common after cataract surgery. It is usually seen at the slit lamp and resolves spontaneously. Sometimes there are no clinical signs

## Post-operative Sub-clinical Corneal Oedema

Corneal oedema, swelling of the cornea, is common after cataract surgery. It occurs because of an impairment of corneal endothelial cell function when exposed to trauma during surgery. Ultrasound energy dispersed throughout the anterior chamber of the eye is the commonest cause; direct trauma from heat, a lens fragment, the intra-ocular lens or a surgical instrument is also possible.

Corneal oedema is often seen clinically at the slit lamp as corneal epithelial micro cysts, corneal stromal opacity and/or corneal endothelial folds. However, in some cases no clinical signs are visible. As demonstrated in the case of Mrs SN, the only indication that corneal oedema may be present is a reduced acuity in the presence of an apparently normal looking eye. Pachymetry demonstrates increased corneal thickness relative to the other and provides the explanation for reduced vision.

The lack of clinical findings suggests the corneal oedema is mild. This is distinct from corneal endothelial decompensation in which the clinical signs of corneal oedema are obvious at the slit lamp and reduction in visual acuity is more severe. Patients can expect a full recovery over weeks to months without the need for any intervention. If intra-ocular pressure is high, reducing it to a lower level will help speed recovery of the corneal oedema and restore vision.



**About the Author:** Dr Colin Clement specialises in cataract and glaucoma. He completed 2 fellowships in the UK and another in Switzerland. As a staff specialist at Sydney Eye Hospital, he enjoys working with and teaching trainee ophthalmologists and other medical staff. He is a founding member of the KPro corneal prosthesis program at Sydney Eye Hospital, the only such service in Australia. He is also director for the annual non-penetrating glaucoma surgery wet lab course held in Sydney. Interests include time spent with family, travel, wine, rugby, tennis and French language.

*Suspect sub-clinical corneal oedema if vision is reduced but the examination appears normal*



*Pachymetry reveals an increased central corneal thickness*



Treatment is generally not required. Sub-clinical corneal oedema resolves in the weeks to months following surgery. Patients can expect full recovery of vision with time.