Unusual presentation of more common disease/injury

Spontaneous corneal perforation post cataract surgery

Rishika Chaudhary, Bushra Mushtaq

Department of Ophthalmology, Birmingham and Midlands Eye Centre, Birmingham, UK

Correspondence to Dr Rishika Chaudhary, rchaudhary@doctors.org.uk

Summary

A 69-year-old female was referred for bilateral cataracts. Best-corrected visual acuity was 6/12 oculus dexter (OD) and 6/18 oculus sinister (OS). On examination, tear film breakup time was 8 s, signifying mild dry eyes; otherwise was unremarkable. The patient underwent uneventful left cataract surgery. At a 1 month postoperative examination vision was 6/9. The left cornea was dry with extensive punctate epithelial erosions. There was no lagophthalmos. Lubricants were started to both eyes. The authors proceeded with right cataract surgery. Postoperative preservative free drops were given. She failed to attend an earlier than routine 2 week postoperative examination. Four weeks postoperatively, the vision was 2/60. She was in compliant with the lubricant drops. Biomicroscopic examination showed a sterile painless paracentral corneal perforation with iris plugging, Seidel's negative. She was started on steroid drops and lubricants. A lower lid punctual plug was inserted. The best corrected vision at 4 months was 6/18 OD and 6/6 OS.

BACKGROUND

This highlights the importance of considering close observation of patients with any severity of dry eyes due to the risk of corneal perforation.

CASE PRESENTATION

A 69-year-old female was referred for bilateral cataracts. Best-corrected visual acuity was 6/12 oculus dexter (OD) and 6/18 oculus sinister (OS). On examination, application of fluorescein showed a tear film breakup time of 8 s, signifying mild dry eyes. Intraocular pressures were 14 mm

Hg. Anterior chambers were deep and quiet. Dilated fundus examination was unremarkable. She was not diabetic. She had no significant medical history and was no on any regular medication.

The patient underwent uneventful routine left cataract surgery. Pupils were dilated with 1% cyclopentolate and 2.5% phenylephrine. Surgery was performed by an experienced surgeon under a local anaesthetic with a subtenon injection of 2% lignocaine. Surgery was performed through a 2.8 mm self-sealing incision. The intraocular lens was inserted into the bag. Intracameral cefuroxime was used.

Figure 1 Right corneal perforation postcataract surgery.

An eye shield was applied after the procedure. Routine post-op medication was guttae maxitrol (dexamethasone, polymyxin B sulphate, neomycin) four times a day for 28 days. At a routinely scheduled 1 month postoperative examination vision was 6/9. The left cornea was dry with extensive punctuate epithelial erosions at the inferior one third of the cornea. There was no lagophthalmos. Lubricants were started to both eyes. The eye settled well. The patient wished to proceed with right cataract surgery. This was performed successfully by the same surgeon using the same technique. Postoperative preservative free drops were given. She failed to attend an earlier than routine 2 week postoperative examination. Four weeks postoperatively the vision in the right eye dropped to 2/60. She was incontinent with the lubricant drops. Biomicroscopic examination showed a sterile painless paracentral corneal perforation with iris plugging, Seidel's negative (figure 1).

INVESTIGATIONS

Investigation was negative for rheumatic disease.

DIFFERENTIAL DIAGNOSIS

Corneal melt secondary to use of topical non-steroidal anti-inflammatory drugs.¹

TREATMENT

She was started on preservative free guttae predsol 0.5% twice daily and guttae celluvisc 1% two hourly and lacrilube three times a day. A lower lid punctual plug was inserted.

OUTCOME AND FOLLOW-UP

The patient was seen at regular intervals. Further follow-up showed 60% thinning of the cornea with no iris plugging. Eventually guttae predsol 0.5% was stopped. Ocular lubricants are being continued. The best corrected vision on discharge at 4 months was 6/18 OD and 6/6 OS.

DISCUSSION

Literature searches show no previous reports of spontaneous corneal perforation post cataract surgery in patients with mild dry eyes. Cases of central, sterile corneal perforation after routine cataract surgery have been reported in patients with severe dry eyes secondary to rheumatoid arthritis^{2,3} and Sjogren's syndrome.⁴

The effects of severe dry eyes may be potentiated postoperatively due to interference with lid mobility and corneal denervation, reducing blink rate.² The effect of corneal denervation during surgery consequently delayed presentation, as she remained asymptomatic. This highlights the importance of considering close observation of patients with any severity of dry eyes.

Learning points

- The effects of severe dry eyes may be potentiated postoperatively due to interference with lid mobility and corneal denervation, reducing blink rate.
- It is important to consider close observation of patients with any severity of dry eyes.
- Educate patients about the importance of complying with eye drops and attending follow-up.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Flach AJ.** Corneal melting associated with use of topical nonsteroidal anti-inflammatory drugs after ocular surgery. *Arch Ophthalmol* 2000;**118**:1129–32.
2. **Perez VL,** Azar DT, Foster CS. Sterile corneal melting and necrotizing scleritis after cataract surgery in patients with rheumatoid arthritis and collagen vascular disease. *Semin Ophthalmol* 2002;**17**:124–30.
3. **Jones RR,** Maguire LJ. Corneal complications after cataract surgery in patients with rheumatoid arthritis. *Cornea* 1992;**11**:148–50.
4. **Cohen KL.** Sterile corneal perforation after cataract surgery in Sjögren's syndrome. *Br J Ophthalmol* 1982;**66**:179–82.

This pdf has been created automatically from the final edited text and images.

Copyright 2011 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.

BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Chaudhary R, Mushtaq B. Spontaneous corneal perforation post cataract surgery. *BMJ Case Reports* 2011;10.1136/bcr.11.2011.5099, Published XXX

Become a Fellow of BMJ Case Reports today and you can:

- Submit as many cases as you like
- Enjoy fast sympathetic peer review and rapid publication of accepted articles
- Access all the published articles
- Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow