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Learning From Litigation

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Being the subject of litigation is a stressful experience, likely to occur at least once during the career of every clinician. Over the last 5 years, there have been 1,053 cases of litigation against ophthalmologists (data from NHS Resolutions) and considering there are only approximately 1,300 consultant ophthalmologists in the UK, the likelihood of facing litigation is significant. Having to look back over previous decisions and justify the care delivered can be difficult, especially as human and system errors can happen to any of us but nonetheless may represent a breach of duty. It is disturbing to see patients come to harm and clinicians accused of negligence due to errors which could be easily avoided and yet trigger a cascade of events which result in detriment to the patient. Doctors have a duty to protect patients and prevent these errors occurring.

The aim of this article is to raise awareness of areas of practice where there is particularly high potential for errors to arise, focusing on common themes in claims submitted to NHS Resolutions. NHS Resolutions, formerly known as The NHS Litigation Authority, is an arm's length body of the Department of Health, which aims to resolve concerns and disputes, provide indemnity cover for clinical and non-clinical liabilities, offer legal and professional services, and contribute to the patient safety system by preventing errors recurring and reducing the cost of harm to the healthcare system. In this article, we present three case vignettes relating to negligence and cataract surgery, a common area of complaint. High volume cataract surgery is fraught with challenges and comprises several steps susceptible to human or system error.

1. Intracameral Cefuroxime Dosing

Since the results of the ESCRS study in 2007, and consistent with the RCOphth Guidance, postoperative endophthalmitis prophylaxis in cataract surgery has evolved toward intracameral cefuroxime as the standard of care.[1] However, until recently Cefuroxime has not been available as a pre-prepared intracameral formulation and there have been reports of toxicity from cefuroxime dosing errors.

Case

A 71-year-old gentleman underwent routine cataract surgery. An incorrect dosage of cefuroxime was drawn and injected into the anterior chamber. The patient developed corneal oedema and severe cystoid macular oedema both of which failed to resolve.

Discussion

Several cases of early postoperative macular oedema have been reported following cefuroxime injection, most of them due to accidental cefuroxime overdose.[2,3] Cases of macular infarction[4,5] and toxic anterior segment syndrome[6] have also been reported.

Dosing errors are unlikely with pre-prepared formulations such as Aprokam™ (Thea Pharmaceuticals, Newcastle Under Lyme), however, in some units, Cefuroxime is still diluted in theatre.

When overdose occurs, visual recovery is usual, however, as this case illustrates, not universal. In the above case, causation was uncertain as it was not possible to prove a direct link between high dose Cefuroxime and visual loss, however breach of duty was admitted.

Learning points from this case include that it is ultimately the surgeon's responsibility to ensure the drug they administer is correct and therefore surgeons should be actively involved in the training and supervision of staff who assist them. It is preferable not to dilute drugs in theatre but have them pre-prepared to avoid the risk of dosage error.

2. Incorrect Intraocular Lens (IOL) implantation

Implantation of the wrong IOL should be considered a `never-event', however, it still occurs and often requires remedial surgery in the form of IOL exchange.

Case 1

A 67-year-old gentleman underwent uncomplicated left phacoemulsification and IOL implantation with a 17D posterior chamber intraocular lens. Post-operatively he was found to be significantly hypermetropic and it was determined that a 20D IOL should have been used. The operating surgeon used the calculation for an anterior rather than posterior chamber lens. IOL exchange was undertaken which was complicated by iris trauma, anterior chamber haemorrhage, raised IOP and eventual corneal decompensation.

Case 2

A 57-year-old lady underwent uncomplicated cataract surgery with a 22D intraocular lens based on the SRK/T formula. Axial length was 25.2mm. A refractive surprise was discovered post-operatively and it was found out that the patient had had myopic LASIK 6 years earlier, which had not been noted pre-operatively. The patient underwent lens exchange complicated by posterior capsule rupture and cystoid macular oedema.

Case 3

An 83-year-old patient had uncomplicated cataract surgery with implantation of a 28D IOL. Post-operatively the patient was highly myopic and it was discovered that a 23D lens should have been used. The power of the desired lens had been hand written in the notes but misread by the person fetching the lens. An IOL exchange took place complicated by posterior capsule rupture and retinal detachment.

The main theme arising from these cases was that in all cases the initial procedure was uncomplicated but IOL exchange was required due to incorrect IOL implantation and the exchange resulted in a cascade of complications.

Several points can be learnt from these cases.

1. Always follow the World Health Organisation (WHO) checklist. This checklist was developed as a collaborative project between the National Reporting and Learning Service (NRLS) and The Royal College of Ophthalmologists. The checklist was adapted specifically for cataract surgery from the standard WHO Surgical Safety Checklist.

2. Take a thorough history and examine each patient at the pre-assessment, particularly watching for patients with previous refractive surgery.
3. Check the biometry thoroughly, watch out for red flags such as a large difference between the two eyes or an axial length that does not fit with the calculated IOL power.
4. Select the desired IOL power prior to surgery and clearly document it in the notes.
5. Recheck the IOL power prior to getting the lens.
6. Recheck the IOL power immediately prior to opening and inserting the lens.
7. Do not have the AC IOL power routinely printed on the biometry.
8. If an ultrasound axial length was measured then ensure the correct data is inputted into the automated calculator.
9. Avoid having all the lenses out prior to the list as a change in list order can result in the incorrect IOL being used.

If a 'never event' occurs it is essential to be open with the patient and apologise for the error. It may be worth exploring nonsurgical options such as spectacles, contact lenses, or considering refractive laser surgery. However, if IOL exchange is required it is best to operate as soon as possible, while the IOL can be more easily freed from the capsular bag. If the IOL exchange goes well and vision is maintained there is no loss to litigate for.

Although error seldom results from the actions of one person alone, the operating surgeon is ultimately responsible for complications of surgery. The 'captain of the ship' doctrine holds weight and the operating surgeon is deemed to be the person in charge in the operating room, ultimately responsible for any complications of surgery, even those caused by the actions of others. Responsibility can be shared to some degree with the Trust as the employer, however it cannot be fully deflected as the surgeon has responsibility for inserting the IOL into the eye.

3. Iatrogenic Cannula-related Intra-Ocular injury

There have been numerous cases of intraocular injury related to release of a cannula during ophthalmic surgery. The cannula is usually attached to either a saline or a viscoelastic syringe and pressure on the plunger can produce significant hydraulic force. If the cannula comes off it can cause significant damage.

Case

A 67-year-old underwent uneventful cataract surgery until the capsular bag was being filled with viscoelastic prior to lens insertion. The Rycroft cannula attached to the viscoelastic syringe with a Luer lock came off while in the eye and impacted in the posterior segment. The capsule was ruptured and a haemorrhage was immediately noted from behind the iris. An anterior vitrectomy was carried out and an IOL placed in the ciliary sulcus. The red reflex remained dull at the end of the procedure. On day one a complete hyphaema was noted and there was no view of the posterior segment. The patient underwent four vitreoretinal procedures and eventual evisceration.

Iatrogenic intraocular injuries have been well described.[7,8] Slip lock cannulas should not be used for intraocular surgery. Even with the use of screw-lock (Luer) syringes the cannula can still come off if they are incompletely screwed in place. It is recommended that the surgeon verifies the cannula is secure by tightening the cannula themselves and placing a finger of safety on the cannula (Figure 1) when used. The consequences of inadvertent release of the cannula can be vision threatening.

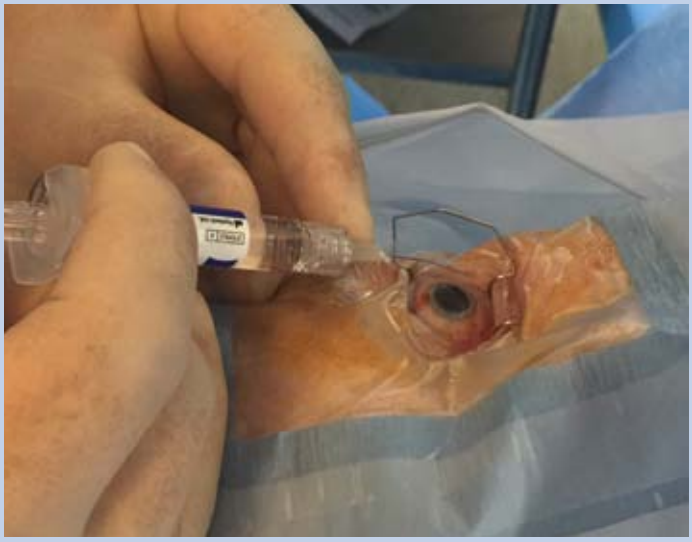

Figure 1.

The high volume of cataract surgery performed can lead to a perception that it is a 'routine' procedure, however, these cases illustrate the potential for harm. It is important to share and learn from such cases to prevent errors recurring, improve patient safety, and reduce the added stress that litigation brings for all involved.

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