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Sir,

First postoperative day intraocular pressure rise in resident-performed cataract surgery

We read the article by Kim *et al*[1] with interest and would like to highlight some concerns regarding their data and conclusions.

The title and purpose of the study seems to indicate outcomes for a particular surgeon group (residents in training); however, the conclusions are not supported by the data. Amongst 1582 procedures, after excluding surgery complicated with vitreous loss, 305/1582 procedures were performed by attending surgeons and further excluded from analysis. The outcomes of these 305 surgeries is reported in the discussion as having an incidence of first postoperative day intraocular pressure (IOP) elevation no higher than the trainee-performed surgery ($P = 0.94$, χ^2-test). The authors have surprisingly chosen to present the study as a consecutive case series instead of a more useful comparative study.

There is a discrepancy in the use of ophthalmic viscosurgical device (OVD). The methodology states use of two agents: Healon (1% sodium hyaluronate) initially in 2001 to 2005 and thereafter Duovisc, which is composed of two OVDs, the cohesive Provisc (1% sodium hyaluronate) and dispersive Viscoat (sodium chondroitin sulphate 4%–sodium hyaluronate 4%). However, in Table 2 the OVD reported as used is Healon GV, a hyaluronic acid product with a 10-times higher viscosity than Healon, preferred in complicated procedures (vitreous pressure, flat anterior chamber, so on) and thus probably chosen for resident surgery. The effect of OVDs with higher molecular weight and viscosity on postoperative IOP is well documented.[2,3] This may well explain the reason for this case series having a higher postoperative IOP 24 h after cataract surgery (22%, >23 mm Hg and 14.9%, >26 mm Hg) than the previously reported values of 2.57%[4] and 11.8%,[5] respectively.

The effect of trainee surgeons on early IOP rise after cataract surgery can be a consequence of relatively more manipulations, residual OVD, and subsequent increased inflammation. This hypothesis maybe better supported by data on central corneal thickness, aqueous flare, surgery duration, phacoemulsification power etc as well as a comparative case–control study design.

Conflict of interest

The authors declare no conflict of interest.

References

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Sir,

Comment to 'First postoperative day intraocular pressure rise in resident-performed cataract surgery'

We appreciate Drs Chaudhary and Kadyan's interest[1] in our article regarding the elevated intraocular pressure (IOP) on the first postoperative day following resident-performed cataract surgery.[2]

Our study was a comparative study and not a consecutive case series. Although all consecutive surgeries were considered, only 1111 cataract surgeries performed by residents between 1 July 2001 and 30 June 2006 were included in this study owing to the exclusions of some cases for the reasons listed.[2]

We acknowledge that the types of ophthalmic viscosurgical device (OVD) were not evenly distributed during our study period. As we commented in the Methods, sodium hyaluronate (Healon; Abbott Medical Optics Inc., Santa Ana, CA, USA) was used for all procedures from July 2001 to November 2005, and combined chondroitin sulfate and sodium hyaluronate (Duovisc; Alcon Laboratories Inc., Fort Worth, TX, USA) were used for all procedures after this time.[2] Owing to the retrospective nature of the study, the type of viscoelastic could not be controlled.

The 'GV' in 'Healon GV' was an error in Tables 2 and 3. It should read 'Healon' instead. We are grateful to Drs Chaudhary and Kadyan for alerting us to the error.

The incidence of postoperative day 1 IOP >23 mm Hg was 22.0% (244/1111) in our study.[2] As we described in the discussion, comparison among studies was limited because the definitions of 'IOP increase' and surgeon's experience such as resident *vs* non-resident were different.[2] Jaycock *et al*[3] reported that the incidence of raised postoperative IOP >21 mm Hg was 2.57% (430/16731) with a median time to postoperative review of 31 days. However, the exact time when they measured postoperative IOP was not described and trainees performed only 33.9% of operations. Browning *et al*[4] showed that the incidence of IOP >26 mm Hg at 24 h after surgery was estimated to be 11.8% by three training surgeons. We similarly found our incidence to be 14.9% (165/1111; $P = 0.56$, Fisher's exact test).

We agree that the aetiology of postoperative day 1 IOP rise after cataract surgery can result from relatively more manipulations, residual OVD, and subsequent increased inflammation. A prospective study to evaluate the factors would be useful.

Conflict of interest

The authors declare no conflict of interest.

References

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Sir,

Workload, referral characteristics and consultation outcomes of out-of-hours ophthalmology services

Ophthalmology is mostly an outpatient, office hours specialty, and no studies have yet examined the necessity, cost, workload, or outcomes of out-of-hours ophthalmic (OOHO) services in the UK. Knowledge of these parameters could allow more efficient service planning, especially in a possible climate of increasing UK healthcare privatisation.[1]

Consequently, we prospectively examined all out-of-hours (OOH; outside Monday–Friday 9 am–5 pm) consultations by two ophthalmologists working on-call shifts at two different hospitals in south-east England (one urban teaching hospital, and one provincial district general hospital) over three months. Each doctor performed an average of 58 OOH consultations over 18 on-call shifts in the three-month study period (average 2.6 patients per weeknight, and 8.6 patients per weekend). The main sources of referral were emergency department (ED) doctors (33%) or nurse practitioners (26%), and general practitioners (17%). Fewer OOH referrals were received from hospital wards (6%), other ophthalmologists (4%) and optometrists (6%), the latter presumably reflecting their daytime office hours. Some 50% of patients referred had not had their visual acuity (VA) checked, corroborating earlier studies in which ED staff did not correctly record VA in 33%[2] and 44%[3] of cases. Only 29% of patients were referred with a correct working diagnosis. This suggests that OOH ophthalmologists are a valuable adjunct to the hospital's ED service after hours, and it may also reflect the inconsistent training and low confidence of junior ED doctors when faced with eye emergencies.[4,5] Following OOHO consultation, 36% of patients were discharged, 6% were referred to another medical team or hospital, and 57% were booked a follow-up appointment in the same eye department. Extrapolating our data, each hospital's OOHO service would see approximately 1200 patients per year, necessitating 600–700 eye clinic review slots for patients seen OOH.

We have generated a small dataset on OOHO consultations across two hospitals. However, as the only such published data, it may provide initial guidance in planning, commissioning or pricing future OOHO services in the UK. It also underlines the need for future commissioners of OOH services to organise enough clinic capacity for follow-up arising from OOHO consultations. Larger, multi-centre studies will provide more accurate and region-specific datasets, but will only be practical to conduct after the more widespread