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CLINICAL STUDY

Is the 1-day postoperative IOP check needed post uncomplicated phacoemulsification in patients with glaucoma and ocular hypertension?

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Abstract

Purpose **To determine whether the 1-day postoperative intraocular pressure (IOP) check following routine uncomplicated phacoemulsification is necessary in patients with pre-existing glaucoma and ocular hypertension (OHT), if acetazolamide prophylaxis is used. To investigate the practice of UK glaucoma specialists in IOP rise prophylaxis and follow-up regimes.**

Patients and methods **The IOP 1-day postoperatively was analysed against the last recorded IOP before phacoemulsification in a cohort of patients with glaucoma or OHT who underwent uncomplicated phacoemulsification cataract surgery between December 2009 and September 2012, where it was routine practice to give acetazolamide postoperatively. UK and Eire Glaucoma Society members were surveyed via an online questionnaire to analyse practice among UK glaucoma specialists.**

Results **One hundred and seven eyes were studied: 99 with glaucoma and 8 with OHT. The mean IOP change was −0.8 mm Hg with only two eyes measuring >30 mm Hg postoperatively (2%). Both these eyes received 750 mg acetazolamide. Eighteen (17%) eyes had an IOP rise of at least 30%. In the survey of practice there were 65 respondents. Twenty-one (32%) respondents did not use IOP prophylaxis. Only 17 (26%) of respondents routinely reviewed their patients 1-day postoperatively.**

Conclusion **Our prophylactic acetazolamide regime does not completely eliminate the risk of an IOP >30 mm Hg on day 1 post routine phacoemulsification in glaucoma/OHT patients. Patients with pre-existing glaucoma, despite acetazolamide prophylaxis, will require IOP management decisions on the first postoperative day after uncomplicated phacoemulsification surgery. UK expert practice is non-uniform with regard to IOP prophylaxis, and the 1-day review, and further discussion and formulation of consensus appears necessary.**
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Introduction

Phacoemulsification cataract surgery is one of the most common surgical procedures worldwide.[1–3] It has been suggested that the 1-day postoperative intraocular pressure (IOP) check post routine uncomplicated phacoemulsification can be abandoned for a number of reasons.[1,4–7] Some of these include the fact that new surgical complications are unlikely to be picked up on the first day, peak IOP may have already passed, economical constraints, improved postoperative outcomes and low complication rates.[1,4] However in patients with glaucoma or ocular hypertension (OHT), either this approach was not advocated, or it was recommended that prophylactic regimes against a raised IOP should be followed

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as investigated in other studies.[1,4] The problem with the vast majority of the studies that have investigated prophylaxis regimes for a raised IOP is that they have excluded patients suffering with glaucoma or OHT.[8–19] It is of importance to study such regimes specifically in glaucoma and OHT populations, as it is these patients who are most at risk of a raised IOP.[6,12,20] It has been suggested that this pressure rise may be transient postoperatively. However, in patients suffering with glaucoma, even this transient rise can be potentially dangerous and management decisions will need to be made in these cases.[11] This study examines the efficacy of an acetazolamide prophylactic regime in a cohort of glaucoma and OHT patients. Acetazolamide has been chosen as it is our routine practice, and its use is common in the United Kingdom. To the best of our knowledge no similar study of this cohort size has been conducted previously.

The American Academy of Ophthalmologists (AAO) in their Preferred Practice Pattern for adult cataract surgery recommends a postoperative consultation within 48 h for all patients and within 24 h for cases with a high risk of postoperative complications such as an IOP spike, functionally monocular patients or cases in which intraoperative complications occurred.[21] However, The Royal College of Ophthalmologists (RCOphth) state in its latest cataract surgery guidelines that routine first-day postoperative review is no longer in widespread use but may be required in patients with glaucoma.[7] We therefore thought it important to investigate the practice of UK ophthalmologists, with a subspecialty interest in glaucoma, in this regard concerning with glaucoma and OHT.

Materials and methods

Case notes were reviewed for all patients with OHT or glaucoma who underwent phacoemulsification cataract surgery between December 2009 and September 2012 on a single morning operating list where it was routine practice to give acetazolamide postoperatively. All cases were performed by one glaucoma specialist consultant surgeon, or a trainee and directly supervised by the same consultant surgeon, at a large tertiary referral teaching hospital in the United Kingdom. Exclusion criteria included those with surgical complications, those whose medication charts were missing from the records and those who underwent combined procedures. The IOP at listing for surgery was compared with the IOP measured on day 1 postoperatively with Goldmann applanation tonometry. The last IOP check was either performed on the day of the surgery or at listing.

Phacoemulsification was performed using a divide and conquer technique using a three-step self-sealing corneal incision with the use of either Haelon (in cases with sharp needle anaesthesia) or Visthesia (Carl Zeiss Meditec, Jena, Germany) and Haelon (Abbott Medical Optics Inc., Abbott Park, IL, USA) (in cases under topical anaesthesia). A three-piece silicone IOL was placed in the capsular bag in all cases with forceps rather than an injector. Special care was taken to remove all viscoelastic at the close of surgery. All patients received a course of acetazolamide (Diamox sustained release) post-operatively. Two regimes were used: a total of 250 or 750 mg with the protocol decided upon by the same consultant Ophthalmologist and dependent on multiple factors based upon circumstances individual to each case. The major factors considered were: age, medical comorbidities, past ocular history and the degree of glaucoma damage in the eye as measured by field defect. A greater field loss was a major factor in the decision. The 250 mg regime consisted of one 250 mg tablet of acetazolamide postoperatively. The 750 mg regime consisted of one 250 mg acetazolamide tablet post-operatively, another 250 mg acetazolamide tablet on the evening of the surgery and a final 250 mg tablet on the morning after surgery. The first acetazolamide tablet was administered by the day case nursing staff, thus this dose can be guaranteed. However, as the patients were discharged on the day of surgery, there was no provision to guarantee compliance of taking further doses. On the day of surgery, all usual glaucoma drops were given except pilocarpine. No further topical glaucoma medications were given that day as a pad was worn until the next day.

Visual fields were performed with an automated Humphrey field analyser (24/2 and 10/2 programmes where appropriate) and the IOLMaster (Zeiss) biometry machine was used to measure axial length.

The survey of practice among UK ophthalmologists was carried out using the UK and Eire Glaucoma Society website (UKEGS) email database. The survey was distributed via an emailed link to an online survey service. The invitation to participate stated that it was for consultant ophthalmologists with an interest/subspecialty training in glaucoma and also stated that the aim was to 'study practices regarding IOP checks post routine uncomplicated phacoemulsification in glaucoma or OHT patients who are on drop treatment for raised IOP'. We specifically stated that we are interested in patients who met the following criteria: diagnosed with glaucoma or OHT, have undergone routine uncomplicated phacoemulsification and are on drop treatment to lower IOP. We chose to focus on those with a subspecialty interest in glaucoma as these surgeons are likely to have a higher caseload of glaucoma patients undergoing cataract surgery. The questionnaire was administered after collecting data for the study.

The two-tailed Fisher exact test was used for statistical analysis.

Results

Table 1 shows the patient characteristics. One hundred and seven cases were identified. Sixty-nine (64%) had 750 mg acetazolamide in total postoperatively and 38 (36%) had 250 mg. The mean IOP change was −0.8 mm Hg 1 day postoperatively compared with the IOP at listing. Two eyes (2%) measured an IOP >30 mm Hg on the last visit before surgery. Both these eyes had a diagnosis of narrow-angle glaucoma and both of these patients had received the 750 mg acetazolamide regime. Four (4%) eyes had a postoperative IOP of 26–30 mm Hg. Eighteen (17%) eyes had an IOP rise of at least 30%. Of the 63 eyes with glaucoma that had 750 mg acetazolamide, 10 (16%) had an IOP rise of at least 30% on day 1. In total, 20 mm Hg was the highest postoperative IOP from the 16 cases that had a previous functioning trabeculectomy. The mean number of IOP drop-lowering medications for all cases was 1.16 medications (range 0–4) per eye. Eighty-three eyes had a preoperative IOP <21 mm Hg: Fifty-two (63%) of these were on pharmacological IOP-lowering medication.

Central corneal oedema was found in nine (8.4%) eyes on the first postoperative day. Iris hooks were used in six (5.7%) cases. Visthesia was used in eleven (10.5%) cases. Seventeen (16%) cases were performed entirely (16) or part-performed (1) by a trainee surgeon supervised by the same consultant surgeon who performed the remaining cases. Ninety-six (90%) of cases were performed under local anaesthesia with the remainder under general anaesthesia.

For the two cases with a postoperative IOP of >30 mm Hg (34 and 36 mm Hg), no predictive factors were found from the data we have collected as presented already for the entire cohort. The following factors were present in one case but were not found to be associated with an elevated IOP of >30 mm Hg: postoperative central corneal oedema ($P=0.18$), diabetes ($P=0.35$), surgery performed by a trainee ($P=0.28$). Neither case had an absolute visual field loss in the central 10 degrees of vision (only 24/2 visual fields were available for these two cases). The highest recorded IOPs prior to cataract surgery were 26 and 24 mm Hg. These patients were not having surgery in the period immediately following a presentation with acute (or acute on chronic) angle closure glaucoma. The diagnosis in both of these patients was primary open-angle glaucoma (OAG). The postoperative IOP time course for these two cases was as follows: Case 1: preoperative IOP 18 mm Hg. Acetazolamide at the higher dosing regime was given for 3 days postoperatively—longer than our usual regime. At the 1 week visit (4 days after stopping acetazolamide) IOP was back to 15 mm Hg on the same drops as preoperatively (patient on four IOP-lowering medications). IOP stayed controlled over the following 2 years. The IOP on day 1 at 34 mm Hg was the only IOP measuring >20 mm Hg in that time period. Case 2: preoperative IOP 16 mm Hg. The IOP on day 1 was 36 and 31 mm Hg on day 10 postoperatively on just one IOP-lowering medication. The disc was not badly damaged. The IOP was 16 mm Hg at 3 weeks

Table 1 Patient characteristics

Patient characteristic	n	%
Number of cases	107	100
Glaucoma	99	93
OHT	8	7
Male	46	43
Female	61	57
Mean age (y)	73.11 (range 32–92)	—
No pre-existing IOP-lowering treatment	34	32
One IOP drop-lowering medication	35	33
Two IOP drop-lowering medications	26	24
Three IOP drop-lowering medications	11	10.2
Four IOP drop-lowering medications	1	0.9
Humphrey 10/2 visual field available	25	23
Absolute defect on at least one point tested on 10/2 field	18	17
Humphrey 24/2 visual field available	76	71
Absolute defect within central 10 degrees of vision on 24/2 field	16	15
Mean axial length (mm)	23.28 (range 20.02–31.5)	—
Previous laser iridotomy	24	23
Diabetes	32	30
Previous functioning trabeculectomy	16	15

Abbreviations: *n*, number of cases assessed; %, percentage of cases assessed.

postoperatively on two IOP-lowering medications. The IOP was not raised again. The IOP was considered satisfactory at 36 mm Hg as the disc was not badly damaged. As the IOP had not subsided at day 10, an extra IOP-lowering medication was added.

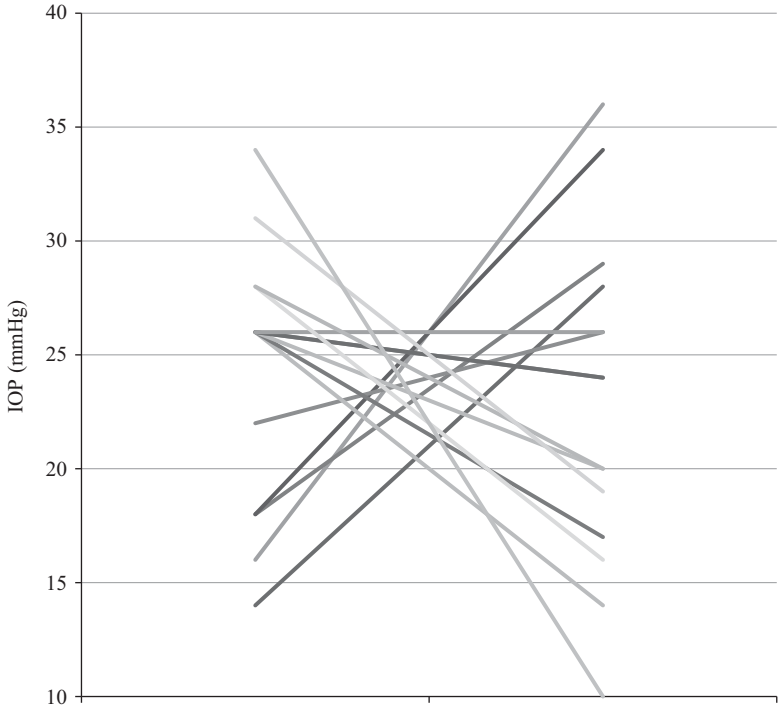
For the cases with a preoperative IOP >25 mm Hg, the average time between this IOP check and surgery was 14.3 days. For one of these patients, the IOP was checked on the same day prior to surgery. None of these cases received a preoperative mannitol infusion.

Figure 1 shows the last IOPs recorded before surgery and the 1-day postoperative IOPs in the cohort. Table 2 shows the percentage change in IOP 1-day postoperative compared with the last recorded IOP before surgery. Table 3 shows the summary of answers to the questionnaire sent to the membership of the UKEGS regarding their practice. The survey was sent to 317 members of the UKEGS. Sixty-five members responded, thus giving a response rate of 21%. Not all the members are of consultant status and only consultants were asked to respond.

Table 2 Percentage IOP change one day postoperatively from last visit before surgery

Percentage IOP change one day postoperatively (%)	n	%
< −30	19	18
−30 to < −20	8	7
−20 to < −10	15	14
−10 to <0	13	12
0	11	10
>0–10	8	7
>10–20	7	7
>20–30	8	7
>30	18	17
Total	107	100

Abbreviations: *n*, number of cases assessed; %, percentage of cases assessed.



IOP (mmHg)	n	%	n	%
1-10	11	10	16	15
11-15	29	27	34	32
16-20	43	40	38	36
21-25	14	13	13	12
26-30	8	7	4	4
31-40	2	2	2	2
Total	107	100	107	100

Abbreviations: n = number of cases assessed, % = percentage of cases assessed

Figure 1 Last IOP recorded before surgery and IOP 1-day postoperatively (graph represents cases with either a preoperative or postoperative IOP >25 mm Hg).

Table 3 Results of the survey of UK ophthalmologists from UK and Eire Glaucoma Society regarding their practice on 1-day postoperative checks and postoperative IOP rise prophylaxis post routine uncomplicated phacoemulsification cataract surgery in glaucoma and OHT patients

Question	*Response count*	*%*
Do you routinely review patients the next day after surgery?		
Yes	17	26
No	48	74
Total	65	100
Do you measure IOP in this consultation? (of those who answered yes to question 1)		
Yes	18	95
No	1	5
Total	19	100
How many weeks postoperatively do you routinely see patients? (of those who answered no to question 1)		
1 week	20	38
2 week	13	25
Other	20	38
Total	53	100
Further details from those who answered 'other':		
Same day	1	5
Next day if clinically indicated preoperatively	10	50
>2 weeks	7	35
Other	2	10
Total	20	100
Which denomination of health-care professional usually performs the postoperative check?		
Ophthalmologist	49	75
Optometrist	11	17
Nurse specialist	18	28
Other	3	5
Total	65	100
Do you routinely use any prophylaxis to prevent against raised IOP postoperatively?		
Yes	44	68
No	21	32
Total	65	100
Further details from respondents who use prophylactic agents		
Acetazolamide	30	64
Acetazolamide under certain clinical conditions	7	15
Acetazolamide in addition to other IOP-lowering agents	6	13
Agents other than acetazolamide	4	9
Total	47	100

Discussion

The first day review has many benefits such as the early detection of early postoperative complications, reassurance for the patient and as a training-aid for junior surgical staff.[1,6] Its implementation is under debate for many reasons. Some of these include the fact that new surgical complications are unlikely to be picked up on the first day, peak IOP may have already passed, improved postoperative outcomes and reducing complication rates.[1,4] With increasing pressures upon the health-care system and increasing workloads expected of health-care professionals, a balance clearly needs to be struck. In order to dispense safely with the 1-day postoperative check following uncomplicated phacoemulsification in eyes with glaucoma and OHT, clinicians need to be certain that the rate of sight-threatening complications is in line with eyes with no ocular comorbidities.[4]

It has been shown that transient spikes in IOP have no effect on the visual field in normal patients.[22,23] However, in patients with a compromised disc, even transient elevations in IOP have been suggested to have a negative impact on patients with pre-existing severe defects.[11,20,22–29] Yasutani *et al*[30] have even demonstrated that, without additional therapy, glaucomatous eyes have

an elevated IOP on the first postoperative day, which can worsen until the third day before gradually decreasing. This is in contrast to normal eyes in which the IOP reduces from the first day.[30]

The majority of studies that have investigated omitting the 1-day postoperative check have either counselled against omitting this 1-day postoperative review in patients with pre-existing glaucoma or OHT, or recommended the use of prophylactic IOP-lowering regimes as investigated in other studies.[1,4] The problem with most of the studies that have investigated prophylactic regimes for a raised IOP is that they have excluded patients suffering with glaucoma or OHT.[8–19] This makes it very difficult to extrapolate the results of such studies to glaucoma and OHT patients. It can be logically presumed that for a large cohort of patients the overall IOP will be lowered by most prophylactic regimes. However, it is not possible to use these studies to know if these regimes will reduce the postoperative IOP to a sufficiently low level in patients with glaucoma/OHT.

Kanellopoulos *et al*[31] did include glaucoma patients in their study of prophylactic timolol and acetazolamide. However, they only had six cases of glaucoma in their study and by their own statement 'this study did not address prophylaxis in patients with pre-existing glaucoma or a known history of ocular hypertension'. Takmaz *et al*[32] also studied a prophylactic regime, using bimatoprost, but limited their cohort to cases with pseudoexfoliation (PXF) syndrome (without glaucomatous change) where it is recognised that phacoemulsification surgery can result in IOPs >30 mm Hg in 17% of PXF glaucoma.[33] Levkovitch-Verbin *et al*[34] conducted a prospective randomised double-masked trial to examine the use of timolol in post phacoemulsification IOP rise in glaucoma and PXF patients. Their regime of one drop of timolol maleate postoperatively did eliminate pressure spikes of >30 mm Hg in glaucoma patients compared with no timolol treatment. However, although their total cohort size was large, only 33 were glaucoma patients. Pressure-spike data specifically at 1-day postoperatively in this study were not available for comparison with our own study.

The best comparator to our study has been conducted by Fogagnolo *et al*[35] who carried out a prospective study on the use of acetazolamide to control IOP post phacoemulsification in OAG patients. In their cohort, 20% of the 30 OAG eyes without IOP prophylaxis showed an IOP >30 mm Hg following surgery compared with none of the 30 OAG patients who had received acetazolamide (250 mg 1 and 6 h postoperatively). They found a statistically significant reduction in postoperative IOP compared with no IOP-lowering prophylaxis. Our much larger study, although using different postoperative regimes for acetazolamide ingestion, indicates that even using dosages above that used by Fogagnolo, IOP spikes to levels >30 mm Hg and IOPs measuring $>30\%$ above preoperative levels are not eliminated. This suggests that, in the absence of other data, the 1-day postoperative review should not be eliminated for patients with glaucoma.

Slabaugh *et al*[36] have conducted a retrospective analysis of 1-day postoperative IOP in a large number of glaucoma patients undergoing phacoemulsification. Sixty-seven of the patients in their cohort received acetazolamide prophylaxis. Their regime consisted of 500 mg 6-h postoperatively and 500 mg the next morning. They found a statistically significant benefit of using this regime *vs* no IOP prophylaxis in preventing a postoperative IOP spike. However, 27 of their 45 (60%) cases identified as having a postoperative 'spike' did receive this acetazolamide regime. It is also worth noting that their definition of a postoperative 'spike' is defined as an IOP $>50\%$ above baseline IOP. This makes comparison of their data with other studies more difficult as the majority of these use an absolute value of IOP (mm Hg) elevation. Nevertheless, this study lends further weight behind our conclusion that no prophylactic regime has enough evidence to dispose of the 1-day postoperative IOP check in glaucoma patients entirely.

Without a further study we do not know whether surgery on a similar group of eyes would have resulted in a significant IOP spike within a few hours of surgery. Neither can we state that there will not be a 'spike later' if an IOP measured postoperatively on the same day is acceptable. Table 4 shows a comparison of our results with other studies that have measured IOP 1-day postoperatively. For the purpose of this analysis, we have extracted the data for glaucoma and OHT patients from their cohort data. As can be seen, our regime does significantly reduce the risk of a significantly elevated IOP 1-day postoperatively, even in those where some form of prophylaxis was used. An explanation for our regime of acetazolamide being statistically more effective at reducing a pressure spike at 24 h postoperatively than the 2008 study by Shingleton *et al*,[33,37] could be that their entire cohort had PXF syndrome with its increased risk of postoperative IOP spikes.

In the two cases in our study with an IOP >30 mm Hg, we could not find any predictive factor from the data we collected. It is possible that there were factors in the history of these cases that predisposed them to this elevated IOP. It is, however, pertinent that both these cases received the 750 mg acetazolamide regime and not the lower dosage. There were, however, only two cases in a sample of over 100 patients, thus the validity of the statistical tests conducted needs to be considered when assessing predictive factors.

Table 4 Comparison of data from other studies with data from this study

Study/year	*IOP threshold of study (mm Hg)*	*Number of glaucoma or OHT patients above threshold IOP 1-day postoperatively/total number of glaucoma or OHT patients*	*Comparison with this study*	
			Odds ratio	P-*value*
Alwitry *et al*[4]	>30	13/68	12.41	<0.001
Yasutani *et al*[30]	>30	4/32	7.5	0.025
Shingleton *et al*[33,a]	>30	41/240	10.82	<0.001
Kim *et al*[43]	≥23[b]	30/70	2.59	<0.01
Shingleton *et al*[46,c]	>30	5/32	9.72	<0.01
Pohjalainen *et al*[28]	≥30[d]	15/38	10.97	<0.001
(This study)	(>30)	(2/107)	—	—
(This study)	(>25)	(6/107)	—	—
(This study)	(>21)	(24/107)	—	—

[a] The following medications were given postoperatively: 500 mg acetazolamide, topical β-blocker and topical α-agonist.
[b] The data used to generate statistics from our study were that of a postoperative IOP of >21 mm Hg.
[c] All glaucoma eyes received a drop of timolol 0.5% and brimonidine tartrate 0.15% postoperatively.
[d] The data used to generate statistics from our study were that of a postoperative IOP of >25 mm Hg.

There appears to be no evidence that any prophylactic agent will reduce the postoperative IOP rise to a sufficient level in glaucomatous eyes for the 1-day postoperative check to be omitted. Together with the increased susceptibility of glaucoma eyes to a transiently elevated IOP,[11,20,22,24–29,36,38] it would appear risky to omit this 1-day postoperative check in such eyes, regardless of the prophylactic regime used.

There are many suggestions to explain the pathogenesis behind the IOP spike postoperatively. These include mechanical deformation of the trabecular meshwork, surgical trauma, inflammation and haemorrhage, prostaglandin release, capsulorhexis size, peripheral anterior synechiae, pigment dispersion, retained lens material and viscoelastic materials.[32,39–42]

Although it is possible that greater (or less) care was taken by our team when performing the surgery, and in particular when removing the viscoelastic agent, it is likely that our results would be similar to other surgeons experienced in phacoemulsification surgery (the supervising consultant had been performing phacoemulsification routinely for 16 years when the first patients had surgery). The prevalence of advanced field loss in our cohort of patients undergoing cataract surgery (32% having defects within 10 degrees of fixation) emphasises the importance of routinely considering IOP prophylaxis and review regimes in a glaucoma practice.

Our study has limitations in view of its retrospective nature and the variable times between preoperative and postoperative review. IOP measurements were not corrected for individual central corneal thickness and other corneal biomechanical measures. However, we feel that as measurements were being compared between individuals and not groups this should have little significance.[43]

The postoperative period beyond 1 day may pose a risk for IOP spikes. Our study is limited to an analysis of the IOP 1-day postoperatively and the analysis of prophylaxis of IOP rise outside of this time frame is not within the scope of our data.

We have included patients with a functioning trabeculectomy as we wanted to represent our full case-load in this study. There is an argument that our data would be purer were this data to be excluded, however, we have given the number of cases in this category. Acetazolamide compliance beyond the first dose was also not controlled.

The results of our survey also need to be considered in light of the response rate of 21%; regardless of the fact that not all the members are of consultant status and only consultants were asked to respond.

It has been widely suggested that the 1-day postoperative check after routine uncomplicated phacoemulsification cataract surgery can be omitted.[1,4–7] However, in patients with glaucoma or OHT, this approach was not advocated.[1,4] The AAO recommends a review within 24 h for all patients at risk of an IOP spike.[21] This would, of course, include those with glaucoma and OHT. In 2001, the RCOphth changed its guidance, suggesting that patients do not need to be seen within 48 h in all cases.[44,45] Current (2010) RCOphth guidance states that in some cases of glaucoma, a first day postoperative review may be required.[7] Our study supports these guidance statements and we would suggest that until further evidence is available, all cases of glaucoma should be reviewed as it is not possible to predict sufficiently accurately which eyes will record significantly high IOPs at this time point. Although, to

our knowledge there has been no survey of practice among AAO members, the results of our questionnaire to the members of the UKEGS are of particular interest. With knowledge of our data, it would be interesting to know how many of the 48 (74%) respondents who currently do not routinely review their patients the day after surgery would change their practice. Additionally, it would be of interest to know whether the 21 (32%) of respondents who do not use any prophylaxis agent would do likewise. Specific guidance from expert bodies is long overdue on this controversial subject.

Summary

What was known before

- Glaucoma and OHT patients undergoing routine phacoemulsification cataract surgery are at an increased risk of an IOP spike postoperatively.
- Various prophylactic strategies against a raised IOP postoperatively have been suggested.
- UK glaucoma specialists' IOP prophylaxis strategies and their opinions concerning the necessity for a 1-day postoperative review have not been investigated previously.

What this study adds

- Prophylaxis with acetazolamide, even in high doses, reduces but does not eliminate the risk of significantly elevated IOP (>30 mm Hg) 1-day post routine uncomplicated phacoemulsification cataract surgery.
- It is not possible to predict which eyes will have a significant IOP spike in this scenario.
- UK glaucoma specialists' practice varies concerning their postoperative plan for glaucoma patients undergoing phacoemulsification surgery with one-third not using prophylaxis for raised IOP and only one-quarter performing a routine 1 day postoperative IOP review.

Conflict of interest

SAV received honoraria from drug companies that manufacture and promote anti-glaucoma medication for lecturing, organising educational activities and sitting on expert panels. AG declares no conflict of interest.

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