B.O.A.S.

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Ophthalmic Anaesthesia News

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Articles of interest for future issues or correspondence should be sent by post, disk or email:

Professor Chandra Kumar
Department of Anaesthesia
James Cook University Hospital
Middlesbrough TS4 3BW, UK
Tel 01642854601
Fax 01642854246
Website: www.boas.org
Email:
chandra.kumar@stees.nhs.uk

Perioperative management of blood pressure for ophthalmic surgery under regional anaesthesia

S.J. Mather and C.R. Monk

Sir Humphry Davy Department of Anaesthesia, United Bristol Hospitals NHS Trust, Bristol Royal Infirmary, Upper Maudlin Street, Bristol BS2 8HW

Summary
Despite Royal College guidelines, it is apparent that there is no consensus view on the perioperative management of blood pressure in patients undergoing cataract surgery under regional anaesthesia.

We sent a postal questionnaire to members of the British Ophthalmic Anaesthesia Society (BOAS) in an attempt to find out if the management of these patients reflected evidence–based practice and whether Royal College guidelines were being followed. The literature does not strongly support the adherence to any particular level of blood pressure. Our survey shows that most people do measure the blood pressure, do perceive there is both ocular and cardiac risk from hypertension and that most respondents do not acutely treat hypertension at the time of performing the local anaesthetic block.

Keywords *Hypertension, local anaesthesia, cataract*

Correspondence to Dr. S. Mather

Introduction

The profile of patients requiring ophthalmic surgery is one of high age with an increased incidence of co-morbidities and risk factors for ischaemic heart disease. The presence of hypertension, cardiac disease and poor physical status is related to a greater risk of perioperative morbidity but not to surgical complications. [1]

There is very little evidence to equate hypertension with either ocular or cardiac complications during ophthalmic surgery under regional anaesthesia.[2] Why, therefore, is it perceived as best practice to try to control the blood pressure perioperatively within certain defined limits?

On searching Medline and PubMed for the 10 years to 2003, few papers relevant to intraoperative blood pressure control were found. Of these, six commented on or examined blood pressure changes, or discussed ischaemic heart disease. Four were directly relevant to hypertension or blood pressure control. [2-8]

Why attempt to control blood pressure?

There are guidelines from the Royal Colleges of Anaesthesia and Ophthalmology, but the *direct* evidence for control of blood pressure perioperatively is not strong. Evidence exists that tachycardia increases morbidity in those with cardiac ischaemia.[1]

Glantz and colleagues found that 31% of cataract patients with two or more cardiac risk factors intraoperative myocardial ischaemia. In their study, these events were all associated with tachycardia, there was no difference in incidence between those having general (GA) or local anaesthesia (LA) but the frequency of episodes was greater in the GA group.

We therefore conducted a postal survey of members of the British Ophthalmic Anaesthesia Society (BOAS), all of whom should be experienced with patients presenting for cataract surgery, in an attempt to find out:

1. if they actually do measure blood pressure
2. why they measure it
3. if they treat hypertension acutely

Results

The questions we asked and the number of responses to each question are shown below.

Do you routinely measure BP before eye block?

	yes	85
	no	19

Have you ever cancelled an eye op for hypertension?

	yes	81
	no	23

What cut-off point for abandoning the block?

systolic	>220	47
	>200	29
	>180	7
Diastolic	>120	44
	>110	37
	>100	7

EYE

Is this because of risk of:

choroidal (expul) haemorrhage	68
orbital haemorrhage	43
raised intra-ocular pressure	30

What evidence is your decision based on?

local practice	67
college guidelines	17
textbook	17
literature search	8
not evidence based	42

CARDIAC			
Risk of			
	Increased incidence of angina		49
	Periop myocardial infarction		59
	Perioperative dysrhythmia		29
What evidence is your decision based on?			
		local practice	36
		college guidelines	8
		textbook	22
		literature search	11
		not evidence based	29
Do you acutely treat hypertension in blocking area?			
		yes	39
		no	65
If yes, do you use:	Sedation-	benzodiazepine	29
		propofol	12
		opioid	6
		other sedation	2
		vasodilator	3
		B-Blocker or labetalol	11
		Ca antagonist	11
		other	1
Do you take the BP routinely after the block?			
		yes	35
		no	65
If yes, is it:		before surgery	23
		during surgery	88
		both	12

Table 1. Survey questions and responses. (n = 176)

Discussion

Of 176 questionnaires distributed, 104 were returned, a response rate of 59%.

In response to the question “Do you routinely measure blood pressure before an eye block?” 82% said “yes” and 18% “no”. (Table 1) A little under a quarter of respondents had cancelled operations because of systemic hypertension.

We asked “What cut off pressure would you accept before abandoning the block”

Most people would accept pressures above the college guidelines for the preoperative treatment of hypertension (180/100); indeed more than half would accept a pre-block blood pressure of at least 220/120.

We made an attempt to find out if this was because of cardiac risk or danger to the eye. We also asked if this decision was based on local practice, Royal College guidelines, sources in the literature, or was not evidence-based. Most

people perceived the greatest risk to the eye to be from suprachoroidal (expulsive) haemorrhage with other significant risk factors being orbital haemorrhage and increased intraocular pressure. Considering cardiac risk, a large number of respondents felt that increased risk of angina and a risk of perioperative myocardial infarction would be associated with elevated blood pressure. Perioperative dysrhythmia was seen as a lesser risk. For cardiac risk, fewer people based their practice on local protocols and more felt their decisions were evidence-based than for ocular risk. There is thus a realisation among ophthalmic anaesthetists that systemic hypertension does pose increased risk in this population yet there is not a strong evidence basis for this.

The treatment of hypertension just before performing regional anaesthesia for ophthalmic surgery is controversial. The joint Colleges guidelines [9] do not recommend the acute treatment of hypertension, although it is widely practised. Over 60% of our respondents said they would not treat the blood pressure acutely.

We were interested to find out whether those who do treat blood pressure in the blocking area did so with sedation, analgesics or with vasoactive drugs. Sedation of itself can bring problems such as the patient falling asleep during surgery and then awakening in a disorientated state during the operation. 49 respondents would use sedation whereas only 26 would use a vasoactive drug, despite the efficacy and known advantages of, for example, beta blockers in limiting the rise in heart rate which may precipitate angina.[10]

We also wanted to know if anaesthetists measure the blood pressure after performing the block. Only 35% of respondents do this. Of these, the majority measure blood pressure during surgery and a few both before and during the operation. One reason often given for not taking the blood pressure during surgery is that it is uncomfortable to have repeated measurements taken by an oscillometric method, particularly at high pressures, and this makes the patients unable to keep still during surgery.

There is very little evidence to inform us with regard to the perioperative management of blood pressure during ophthalmic surgery under regional anaesthesia. We do know, however, that tachycardia and hypertension can lead to ischaemic events and the spectrum of acute coronary syndromes and cardiac morbidity. This in itself is good enough reason for measuring blood pressure and only operating on those who have their hypertension controlled.

It is also accepted that there is a risk to sight if the patient suffers a choroidal haemorrhage during surgery, but the evidence that this occurs at any particular level of systolic or diastolic pressure appears to be lacking.

It is therefore in the patient's best interests to control hypertension, and perhaps our best guide is to take steps to reduce the cardiac risk factors with regard to hypertension, but we may have to *assume* that these measures will also reduce ocular risk factors at the same time.

The Royal Colleges have produced guidelines that specify a level to which blood pressure should be controlled, but this is not supported by any specific evidence either for ocular or cardiac risk. It would be very difficult to define the risk for any individual on this basis, as most recommendations for the control of hypertension are based on research which looks at long-term medical outcomes from long-term treatment.

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Annual Scientific Meeting of BOAS will be held on 9-10th June 2005 in Jersey

For details please contact the meeting organiser

Mr Bartley J McNeela
Consultant Ophthalmologist
Jersey General Hospital
Gloucester Street
St Helier, Jersey JE1 3QS
Email:
mcneela@jerseymail.co.uk

Further details will be available when available on BOAS website: www.boas.org

Report of OAS 18th Annual Scientific Meeting, Chicago, October 1st – 3rd 2004

Dr Robert Johnson
Bristol, UK

BOAS was well represented with five delegates two of whom gave formal presentations and all participated actively in discussion. The Society had produced a programme with parallel sessions for one day of the meeting – one intended for Anesthesiologists and CRNAs and the other for other personnel involved in ophthalmic anaesthesia.

Dr Robert Johnson and Mrs Ursula Johnson

As ever, the atmosphere was friendly and lively and out-of-session discussion was interesting and fruitful. The reception on the first evening allowed renewal of old friendships and creation of new ones and the food was excellent. I do not need to remind members about the delights of Chicago as a clean, attractive and interesting city with superb galleries, museums and concert hall. This year we had the added interest of the new Millennium Park – yes it is new: just a little late.

The first session included Chandra Kumar's excellent talk on visual experiences during eye surgery under regional orbital anaesthesia and a fascinating, if worrying, presentation by Jan Ehrenworth on Fire in the Operating Room. I felt that I knew beforehand about the risk of lasers and electrical faults but was surprised that fires are not all that rare – about 100 each year in the USA – and that those resulting from drape ignition, by cautery or diathermy, with an oxygen enriched atmosphere under drapes are very relevant to ophthalmic surgery. No longer will I allow indiscriminate flows of oxygen to be used without real thought as to what their purpose might be. Under open drapes carbon dioxide accumulation is not a great problem and, in any case, air is just as good at flushing the area around the airway as oxygen. I would now choose the minimum oxygen concentration that maintains a reasonable saturation. We were shown both video and live evidence of the dramatic fires that oxygen enriched atmospheres permit. Have you checked the instant availability of the appropriate fire extinguishing substances in your environment recently? Have you thought what your immediate response to a blazing drape on a patient's face might be? How much use id 20ml of BSS compared with a litre of water?

Dr Sue Bailey and Dr Christine Moore

We then 'played' Ophthalmic Anesthesia Jeopardy – I was not sufficiently quiz game or TV orientated to know what this was – but soon found out! It was stimulating, somewhat educational and certainly a good wake-me-up (not that I was anywhere near asleep of course) at the end of the session. Like many quiz games, the objectivity of the scoring was occasionally in doubt but we had all the proper software to make it very professional. I think it might make a good addition to a BOAS meeting.

Dr Robert Hustead and Mrs Joy Hustead

Mrs Ursula Johnson, Dr Robert Johnson, Mrs Arline Fanning, Dr Gary Fanning, Mrs Suchi Kumar and Professor Chandra Kumar

On the second day (the day of parallel sessions) among the gems were an excellent talk by Joseph Bayes on implanted pacemakers. Some of the content was good revision but much was new (to me anyway). Douglas Bacon presented a first class review of the stormy relationship between succinyl choline and eye surgery – the title Another Myth 'Busted' hints at the conclusion. I was not present at the parallel session but was interested to see what was thought to be relevant for the delegates. Talks included A Proven System for Prevention of Ophthalmitis, Comparison of billing systems between hospitals and ambulatory surgery centers (maybe not highly relevant to the NHS), Knocking Down the Generational Gap (I don't think that was another quiz game) and Everyday Challenges in Running an Ophthalmic Service.

Among the highlights on Sunday were Treatment for Blind and Seeing Painful Eyes by Leonid Skorin – unfortunately I had to miss this talk but my well informed spies told me that it was truly excellent and added a further dimension to the ophthalmic anaesthetist's role. The meeting ended with the usual Anesthesia Case Discussion Panel – the cases were interesting and the discussion was energetic and showed the diversity of views that can exist on patient management: more than one of them may be appropriate.

Dr Steve Gayer with wife and son

In all, a very good meeting. Any ophthalmic anaesthetist in the U.K. would gain a lot from attending one meeting of OAS at least. Maybe 2005 would be a very good time if the dollar remains as weak as at present. Normally, the one down side of this meeting is the cost of staying in Chicago – but the Westin Hotel is a very good venue and, as I have said, Chicago is a delightful city. You can be absolutely sure of a friendly reception and good science.

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Abbott Laboratories Ltd Queenborough Kent, ME11 5EL

A relaxation technique for ophthalmic surgery under local anaesthesia

Dr Anton Vella
Consultant Anaesthetist
City Hospital
Birmingham
anton.vella@swbh.nhs.uk

A high percentage of ophthalmic operations such as cataract surgery, indirect laser, temporal artery biopsies, vitrectomy and eyelid surgery, are carried out under local anaesthesia (topical, sub-Tenon's, peribulbar or local infiltration). Patients in the younger age group and/or those patients undergoing their first eye operation, tend to be very anxious and tense, perhaps because of the fear of possible loss of sight. In these cases most surgeons would request sedation or even a general anaesthetic. However, intravenous sedation or general anaesthesia could be avoided in most patients as both techniques have known complications. I practise a method of allaying anxiety using a relaxation technique that I learned from that used in the induction of hypnosis. This method makes a local anaesthetic acceptable in the most anxious patients.

Although a background knowledge of hypnosis would be helpful before attempting to relax patients in this way (see 'Further reading'), I set out a simplified version of relaxation technique, which is quick and easy to learn and above all may be successful.

Technique.
The key to success with this technique is that the patient puts his trust in you. The patient must show acceptance, willingness and compliance, which in turn will lead to relaxation, focused concentration and diminished anxiety. The following 2 factors are therefore, essential prior to attempting steps 1-5.

Body language
Present yourself in a friendly, calm, polite and confident way. A smile is infectious! Greeting the patient with a '*good morning* ', or a '*good afternoon!'* is helpful. This is true 'hypnotic' suggestion and at this stage the patient will have already decided to trust you. As with any pre-operative visit, introduce yourself adding '*……and I will be looking after you during your surgery.'*

Reassurance
If your patient shows any signs of fear or anxiety, reassure him and ask him whether he would agree to let you show him an easy and pleasant way to relax. If the patient consents, and most do, take the opportunity to show him how (Steps 1 and 2 below) and end with telling him that you will continue with this exercise in the anaesthetic room**.**
Do not try anything if the patient does not agree.

Step 1. Ask your patient to sit well back into the chair so that his back and head are resting against the chair. Make sure they feel comfortable. If possible the patient should rest his legs with his feet flat against the floor and his arms resting on his lap or the chair armrests. Remind him to breathe gently through his mouth. Ask him to remove all tension from his shoulders, to relax himself especially his neck and to slowly take a deep breath, hold it for a while and then breathe out and feel the relaxation spreading down his body as he slowly exhales. Remind him to practise this easy exercise now and again while he awaits surgery.

Step 2. Next ask your patient, while he awaits his turn, to think of a pleasant past experience, emphasising that it should have been a wonderfully happy time. Tell him to focus on this experience and ask him to bring back as much memory of that occasion as he can remember. Finish taking the medical history, reassure the patient again and end by telling him you will meet him again in the anaesthetic room.

Step 3. On arrival in the anaesthetic room patients are generally anxious. Most of the people they meet in the anaesthetic room are strangers to them. Notice their relief when they catch sight of you. They have a friend, they smile and feel comfortable. After the ritual of ECG dots and BP cuff etc. you need to gain the patient's attention again.

Step 4. Start with a request that the patient least expects, I find the following very effective;
…now I want you to think of your toes, wriggle your toes... and then relax them. Relax your

ankles,… legs,… knees and thighs;… your back,… your shoulders,…and your neck right up to your head (notice the response as they relax). *Breathe gently through your mouth*[†] *and think about your chosen best experience. Like I showed you earlier…take a nice deep breath…hold it…hold it …hold it …now breathe out very slowly… and feel the relaxation spread down your body as you breathe out… Let go and feel your body sink into the bed... That is very good…You are doing very well.*
Patients do not need to shut their eyes but if they do, it helps. Sometimes if you ask them to, they become suspicious. I tell my patients that they need not shut their eyes but if they feel they want to, it will help them relax much better.

Step 5. At this stage you are ready to move the patient into the theatre reminding them that if they keep practising and thinking what you have shown them, they will be all right and they will hardly notice the time go by. Reassure them that you will be around if they need any help.

I suggest that you try the above technique. I am confident that you and your colleagues and above all your patient will be surprised with the success. Once you master the technique it will become second nature and you will start to approach every one of your patients with the same attitude and frame of mind. With practise and experience you will get better and more confident as you discover new things yourself as your technique improves[‡]. I appreciate that such a simple technique may seem unusual at first and that embarking on hypnosis in this suggestive form may be daunting. Personally I find it very rewarding when a surgeon asks me to calm the patient 'in your special way.'

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London: George Allen & Unwin.

[†] When you ask the patient to breathe through the mouth, look at them to see whether there is a response. If they open their mouth, it is a good sign that they are receptive of your suggestion and that is a very good sign of success. If they do not open their mouth immediately, do not worry, ask them again and most patients will respond.

[‡] This technique can be used with slight modification for preparing a patient for any anaesthetic.

Peri/retrobulbar block can be a safe, albeit not routine anaesthesia technique for repair of penetrating eye injuries

Dr Helina Kallio
Kuusittie 10 A 32
Fin-00270
Helsinki, Finland

Email: helena.kallio@fstky.fi

Case reports

A case report describes the successful use of topical anaesthesia for ruptured globe repair (1). This was a patient who underwent cataract operation with self-sealing sclerocorneal tunnel incision uneventfully. Afterward, however, the iris, the ciliary body, the lens, and the vitreous prolapsed through the 14 mm scleral wound. The patient suffered from lung cancer, extensive emphysema, and unstable coronary disease which composed a contraindication for general anaesthesia. It was thought that peri/retrobulbar block might further extrude the intraocular contents. Adequate analgesia for surgical repair was achieved by using 10 x 2.5 mm cellulose sponges soaked in 0.4% oxybuprocaine, which were placed under the upper and lower lid for 20 minutes.

With certain precautions eye perforations can be operated on by using peri/retrobulbar anaesthesia

Altogether 20 trauma patients were enrolled into our prospective study and 18 patients served as controls (2). Inclusion criteria were a maximum wound length of 8 mm, and no more than 4 mm posterior extension of the wound from the limbus.

A sharp 12-mm 30 gauge needle was used for transconjunctival, perpendicular, peribulbar injection at the medial edge of the caruncle, which is one of the most frequently used modifications of the "nasal" peribulbar injection and preceded the transconjunctival inferolateral retrobulbar injection with a sharp 31-mm 27 gauge needle.

The mean (range) volume of local anaesthetic was 7.4 (6.5-8.0) ml in the primary block. Before starting surgery, 6 of the 20 patients needed a supplementary dose of 2.9 (2-4) ml because of residual eye movements. All patients were satisfied with the local anaesthesia method and the surgeon considered surgical conditions good. Anaesthesia-related ocular complications did not occur, which was verified at the first postoperative day and one month afterwards. Especially, when ASA IV patients are treated, peri/retrobulbar block serves as a valuable method if one precaution is taken into account, not increasing the intraocular pressure unnecessarily. However, the used volumes in this study did not differ from those used in ordinary practice and, therefore, it can be assumed that at least some protrusion of the globe and elevation of intraocular pressure were inevitable.

Earlier the computer tomography (CT) and ultrasound have been used to evaluate the distribution of local anaesthetics in the orbital cavity. However, the distribution of the liquid could be described much more precisely using magnetic resonance imaging (MRI). In a recent study performed in our university hospital ophthalmology clinic, the distribution of peri/retrobulbar, superomedial and sub-Tenon's injections is described (3). The MRI was performed at 5-min intervals after injection, until 35 min.

Fifteen patients scheduled for cataract surgery were randomised into 3 groups consisting either combined peribulbar and retrobulbar anaesthesia (6-8 ml), superomedial injection (3.5-5 ml) or sub-Tenon's injection (1.5 ml). As the used local anaesthetic mixture was a 1:1 mixture of bupivacaine 0.75% and lidocaine 2% with hyaluronidase 3.75 IU/ml addition. Peri/retrobulbar block was performed according the description mentioned above.

The superomedial injection was performed through the skin of the closed upper lid. The medial corner of the superior orbital rim was used as a landmark and the injection was made some millimetres laterally from that point. The used needle was the same as in the retrobulbar injection (31 mm 27 gauge) but the direction of injection was the same as in the peribulbar injection (perpendicularly to the frontal plane).

The inferomedial quadrant was used for sub-Tenon's anaesthesia. A small hole in the conjunctiva was made with scissors and a blunt, curved 23 gauge cannula was inserted in contact with the globe wall until the space behind equator was reached. 0.2 ml was injected at the equator to dilate the space and 1.3 ml was injected behind the equator. The total volume of the local anaesthetic was 1.5 ml.

Most of the spread of local anaesthetic occurred during the first 5 minutes. Interestingly, in the sub-Tenon's group the local anaesthetic moved more to the anterior part of the orbital cavity (in front of the equator) in comparison to the other groups, there the local anaesthetic was placed in the orbit just behind the equator of the globe. Another interesting finding was - even if it could be anticipated - that sub-Tenon's block caused less exophthalmos than the two other methods. In the peri/retrobulbar and superomedial groups, 2.8 - 2.6 mm of protrusion forwards was noticed, while in the sub-Tenon's group it was only 1.25 mm. The reason could probably be the small amount of local anaesthetic behind the globe, as only 1.5 ml was injected.

In regards of motor block, peri/retrobulbar block caused most akinesia - only the levator palpebrae muscle seemed to remain functional. Superomedial injection caused akinesia of levator palpebrae, superior rectus, and both oblique muscles, but did not anaesthetise the other extraocular muscles. When sub-Tenon's anaesthesia was used, orbicularis oculi, levator palpebrae and lateral rectus muscles remained in functioning.

Conclusion

The current literature is of no proper assistance in deciding whether to use peri/retrobulbar block for penetrating eye injuries. If the anaesthesiologist is familiar with performing peri/retrobulbar blocks, it could be a method of choice, especially in cases of increased risk in general anaesthesia. However, otherwise healthy patients have an increased risk of aspiration in emergency general anaesthesia and that is why using local anaesthesia could be favoured. We have to realise that even meticulous peri/retrobulbar block causes significant (2.8 mm in our study) movement of the globe forwards. Consequently, under certain circumstances there might exist a risk of an ocular complication despite of the fact that such complications, as yet, are not described in the literature. The current opinion among the experienced ophthalmic anaesthesiologists of our university hospital is that if the scleral wound is small enough, peri/retrobulbar block can be considered a safe method. Whether there is a limit of “safe” wound length for the decision to use a regional eye block, remains to be solved in the forthcoming studies?

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A fatal reaction to diamox?

Ken Barber and Monica Hardwick
Departments of Ophthalmology and Anaesthesia
Worcestershire Royal Hospital
Worcestershire, UK

An 82 year old man presented for day case cataract surgery under local anaesthesia. He had a past medical history of emphysema and had a pacemaker.
At 16.00 hrs on the afternoon of 20th Nov 2004, he underwent phocoemulsification of his Left cataract and intra ocular lens implant. The anaesthetic technique consisted of a sub-Tenon's block using 5mls of plain 2% lidocaine with 7.5u/ml of hyalase. A standard inferomedial approach was used with a metal (visitec) sub-Tenon's cannula. There were no complications to either the anaesthetic or the surgical procedure, and the patient was taken home by his son later that afternoon.

At about 18.30 hrs the same evening the patient took 250mg of Diamox (acetazolamide) orally as routinely prescribed after cataract surgery. Some 30 minutes later he complained of difficulty breathing and his family noticed he was flushed and had a rapid pulse. The family sought the advice of their local out-of hours primary care service but were unable to get a doctor to visit the patient at home. At about 20.00 hrs, the patient was becoming increasingly short of breath, so the family phoned the nursing staff at the hospital where the surgery had taken place. This was an elective facility only, so the nurse advised the family to take the patient to the nearest A & E department. At 23.00 hrs the patient collapsed and the family dialled for an ambulance.

Unfortunately despite attempts by both the paramedics and A & E staff to resuscitate the patient, he died shortly after arriving at hospital.

The Coroners post Mortem report quoted the cause of death to be:

1. a) Acute coronary occlusion.
   b) Haemorrhage into an atheromatous plaque.
   c) Reaction to Diamox.
2. Cor-pulmonale due to chronic obstructive airways disease.

The surgeon has been advised by the Coroner to inform the Committee for Safety of Medicines.

Diamox (Acetazolamide) is a carbonic anhydrase inhibitor, which reduces introcular pressure by decreasing production of aqueous. It is also a diuretic and alters the balance of the carbon dioxide/carbonic acid reaction in the kidney. This results in renal loss of bicarbonate along with sodium, water and potassium. Long term therapy with acetazolamide may cause a metabolic acidosis and electrolyte imbalance. Short term use of diamox may cause a diuresis and hypokalaemia. Patients often feel unwell with nausea and dysaesthesia and may develop thrombocytopaenia. Patients with COPD may also develop respiratory failure, and anaphylaxis has been reported[1, 2].

It is not clear whether this case was a true drug reaction to Diamox or just a very unfortunate coincidence. However it is worth remembering that Diamox is not without serious side effects, especially in the elderly. It has also brought to our attention the need for post operative cataract patients to have recourse to sensible and immediate advice should they have post-operative problems.

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2) Local And General Anaesthesia for Ophthalmic surgery, Johnson and Forrest, 1994. Butterworth-Heinmann.

News and information

No subscription for retired members

Retired members do not need to pay the annual subscription fee.

Income Tax Rebate to Society Members

BOAS is registered with Her Majesty's Inland Revenue for the purposes of Corporation Tax. Members can claim income tax allowance against the BOAS subscription.

Contribution for the 12th issue

The next Newsletter will be published in May 2005. Please send your articles or any contributions for inclusion in the Newsletter by 30th March 2005 to Professor Chandra Kumar, Editor Ophthalmic Anaesthesia News, The James Cook University Hospital, Middlesbrough TS4 3BW, UK or email chandra.kumar@stees.nhs.uk

Subscription to Journal of Cataract and Refractive Surgery

Anaesthetic members of BOAS can receive the journal at a discounted rate of £65 by writing to Andre Welsh, UKISCRS, PO Box 598, Stockton on Tees TS20 1WY. Tel 01642651208, Fax 01642651208, Email: ukiscrs@onyxnet.co.uk, Website: www.ukiscrs.org.uk

Acknowledgement

Mrs Pat McSorley has maintained the BOAS membership database since 1998 but has now retired. She continues to administer and maintain the membership database from her home.

Reasons for joining BOAS

BOAS was formed in 1998 to provide a forum for anaesthetists, ophthalmologists and other professionals with an interest in ophthalmic anaesthesia to facilitate co-operation on all matters concerned with the safety, efficacy and efficiency of anaesthesia for ophthalmic surgery. It is concerned with education, achievement of high standards, audit and research. BOAS will organise annual scientific meetings, produce a newsletter and maintain a web page.

Membership
Membership of BOAS includes anaesthetists, ophthalmologists and other professionals with an interest in ophthalmic anaesthesia.

Membership subscription
Membership runs from January each year. The current subscription is £25.00 payable by banker's standing order.

Liaison and specialist professional advice
With the Association of Anaesthetists of Great Britain and Ireland and the Ophthalmic Anesthesia Society of the USA.

Benefits of Membership
- Opportunity to participate in BOAS annual scientific meetings
- Reduced registration fee for BOAS annual scientific meetings
- Reduced registration fee for other ophthalmic anaesthesia meetings and courses in UK
- Free advice from experts on matters related to ophthalmic anaesthesia
- BOAS newsletter and Directory of Members
- Opportunity to contribute towards development and improvement of ophthalmic anaesthesia
- Access to BOAS web page and scientific literature database
- Eligibility for election to Council of BOAS

Administrative Office and Membership information from

Web address
http://www.boas.org

Change of address
Members are advised to inform the secretary if there is a change of email or postal address.

Dr. Sean Tighe
Secretary, BOAS
Dept. of Anaesthesia
Countess of Chester Hospital
Liverpool Road
Chester CH2 1UL
Email: sean.tighe@coch.nhs.uk

BOAS Executive Committee

President
Professor Chris Dodds

President Elect
Mr. Ken Barber

Secretary
Dr. Sean Tighe

Treasurer
Mr Tim C Dowd

Council Members
Mr. Louis Clearkin
Mr Tom Eke
Dr. David Greaves
Dr. Monica Hardwick
Dr K L Kong
Professor Chandra Kumar
Dr Stephen Mather
Dr. Anthony P Rubin
Mr. David Smerdon
Dr Guri Singh Thind
Dr. Sean Tighe

British Ophthalmic Anaesthesia Society Member Registration Form

The Branch Manager

STANDING ORDER MANDATE

Postal Address of your bank………………………………………………………………………………………………

	Bank	Branch Title (not address)	Sorting Code Number
Please Pay	**Midland Bank**	**South Cleveland Hospital Branch**	40 33 01

	Beneficiary's Name	Account Number	Quoting Reference
for the credit of	**British Ophthalmic Anaesthesia Society**	21844636	

	Amount	Amount in words
the sum of	**£25.00**	**Twenty Five Pounds every year**

	Date of first payment		Due date and frequency		Date of last payment	
commencing		and thereafter every	**Yearly**	until further notice in writing or		and debit my/our account accordingly

PLEASE CANCEL ALL PREVIOUS STANDING ORDER/ DIRECT DEBIT MANDATES IN FAVOUR OF	UNDER REFERENCE NUMBER

Account to be debited	Account Number

Special instructions

Signature(s)………………………………………………………………………… ………………………………………… Date……………………

Banks may decline to accept instructions to charge Standing Orders to certain types of account other than Current Accounts

NOTE: The Bank will not undertake to
a) make any reference to Value Added Tax or pay a stated sum plus V.A.T., or other indeterminate element.
b) advise remitter's address to beneficiary.
c) advise beneficiary of inability to pay
d) request beneficiary's banker to advise beneficiary of receipt.
e) accept instructions to pay as soon after the specified date as there are funds to meet the payment, if funds not available on the specified date.

Payments may take 3 working days or more to reach the beneficiary's account. Your branch can give further details.

Personal details

Last name (Dr, Mr, Mrs, Miss, Ms)……………………………………………….First Name……………………………………………………………………………………
Department…………………………………………………………..Institution………..…………
Address……………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
City/County/……………………………………Post code……………………………………………………………….

Phone………………………..Fax…………………………Email………………………………………

If you would like to become a member of the British Ophthalmic Anaesthesia Society, please complete the bank standing order and your personal details.

Completed form should be sent to:-

Dr. Sean Tighe
Secretary, BOAS
Dept. of Anaesthesia
Countess of Chester Hospital
Liverpool Road
Chester CH2 1UL

Local Anaesthesia for Ophthalmic Surgery

Friday, 11th February 2005, Middlesbrough

13th Video-conference Meeting

A CME approved meeting for anaesthetists and ophthalmologists on Local Anaesthesia for Ophthalmic Surgery will be held in the **Education Centre**, **The James Cook University Hospital, Middlesbrough on Friday, 11th February 2005.** The meeting will include **lectures and live demonstration of orbital blocks.** Attendance is limited to 50 participants. Application form and information from Mrs Elaine Tucker (**Course Administrator 01642-854601 email: elaine.tucker@stees.nhs.uk**. Registration fee is £250 (BOAS Members £225) (inclusive of catering). **Cheque payable to Ophthalmic Anaesthesia Education Trust Fund.**

PROGRAMME

09.00-9.25	**Registration**
9.25	**Welcome: Prof Chris Dodds, Middlesbrough**
Chairman:	**Dr Robert Johnson, Bristol**
9.30-10.15	Anatomical considerations for ophthalmic block **Mr David Smerdon, Middlesbrough**
10.15-11.00	Pharmacological considerations for ophthalmic block **Dr Hamish McLure, Leeds**
11.00 - 11.30	**Coffee break**
Chairman	**Dr A P Rubin, London**
11.30- 12.00	Review of eye blocks **Prof Chris Dodds, Middlesbrough**
12.00 - 12.30	Complications of eye blocks **Dr Joseph Bayes, Boston, USA**
12.30-13.45	**Lunch**
13.45 -17.00	**Live Demonstration of Orbital Blocks**

Demonstration co-ordinators: Drs Anthony Rubin, Robert Johnson, Prof Chandra Kumar, Mr Chrijan Dees, Mr Tim Dowd, Mr David Smerdon & Prof Chris Dodds

Retro and/ or peribulbar	**Prof Chandra Kumar, Middlesbrough**
	Dr Anthony Rubin, London
	Dr Grainne Nicholson, London
	Dr Sean Tighe, Chester
	Dr K L Kong, Birmingham
	Dr Sean Williamson, Middlesbrough
Recorded video	**Dr Joseph Bayes,Boston, USA**
Sub-Tenon's	
Stevens' Cannula, Inferonasal	**Prof Chris Dodds, Middlesbrough**
Inferotemporal	**Dr Hamish McLure, Leeds**
Kumar-Dodds Cannula	**Dr Raju Chabria, Middlesbrough**
Greenbaum's Cannula	**Prof Chandra Kumar, Middlesbrough**
Ultrashort Cannula	**Mr Bartley MacNeela, Jersey**
17.00 Closing remarks	**Prof Chris Dodds, Middlesbrough**

Meeting organiser: Prof Chandra Kumar, Course director: Prof Chris Dodds, Academic Department of Anaesthesia, The James Cook University Hospital, Middlesbrough TS4 3BW. Tel: 01642-854601, email: chandra.kumar@stees.nhs.uk