Factors affecting Intraocular Pressure

From Dr K B Holloway
Department of Anæsthesia,
Western Infirmary, Glasgow, G11 6NT

Dear Sir, Dr MacDiarmid and I are obliged to you for the opportunity of reading Dr Wislicki's letter (December *Proceedings*, p 952) concerning our paper (August, pp 601–602).

We are of course well aware of the many facets of the problem of the use of suxamethonium in eye surgery, but now conclude that, because the rise in intraocular pressure (IOP) is so transient, it is not of importance unless there is preanæsthetic discontinuity of the globe.

We believe that extraocular muscle activity is only responsible for part of the pressure rise, and that most of it is due to vasodilatation of the relatively enormous vascular bed of the choroid. In rabbits 70% of the rise occurs after all extraocular musculature has been excised.

In our one case of major intraocular surgery carried out during a suxamethonium apnœa which was subsequently confirmed by pseudocholinesterase assay there was no difficulty in obtaining satisfactory operating conditions.

The rise in IOP due to suxamethonium in eyes which already have a very high tension due to glaucoma or buphthalmos is absolute and not additive, which is what one would expect from vasodilatation rather than muscle action. Thus the drug is not contraindicated in these states, and no complications have resulted from using it in many such cases.

It is interesting to note that we have had difficulty in obtaining satisfactory control of the intraocular contents following the preoperative administration of large doses of acetazolamide parenterally, by the ophthalmologist. We have stopped this practice since Dr T M Wilson of our department of ophthalmology showed by the xenon clearance technique that acetazolamide so given increased the choroidal blood flow by 200–300%. In patients thus treated we have only been able to obtain satisfactory conditions using controlled hypotension.

The belief held in some places that preoperative acetazolamide would abolish or modify the rise in IOP due to suxamethonium may be explained by this finding, for if the choroid is already vasodilated by acetazolamide it may be unable to respond further to suxamethonium. It would obviously be rash to rely upon this effect clinically.

We now much prefer to think of intraocular 'volume' rather than intraocular pressure, as this is what really matters when the eye is open for major intraocular surgery.

Yours faithfully
K B HOLLOWAY
5 December 1976

Outpatient Thyrography: Its Value in the Diagnosis of Thyroid and Mediastinal Lesions

From Mr J E Piercy
London W1N 7AG

Dear Editor, I have read the paper by Dr Galvin and Mr Devlin (November *Proceedings*, p 848) with interest. The diagnosis of the discrete or isolated nodule is of interest to thyroid surgeons as we know that when shown to be cold, i.e. without a radioactive iodine uptake, the percentage of malignancy is considerably higher than that found in the multinodular goitre. However we often find at operation that the clinical diagnosis of a discrete nodule is incorrect and that there are other nodules present. It follows that if thyroid lympography makes the diagnosis of a discrete nodule more certain this would be of considerable practical value.

Yours sincerely
JACK PIERCY
6 November 1976

Laparoscopic Sterilization Using Yoon's Silicone Falope Rings

From Mr Michael Pugh
Harley Street, London W1N 1AF

Dear Sir, The development of methods of sterilization using the laparoscope, but without using the diathermy, would seem to be a welcome change. The use of the standard diathermy instrument has been associated with many accidents, involving damage to bowel and subsequent peritoneal infection, and several fatal occurrences. These risks will be reduced by use of the bipolar diathermy instrument, but nevertheless the failures of the procedure due to fistula formation and persistent patency of the tubes will remain a hazard.

The use of the silicone Yoon ring has given excellent results in the hands of Mr Tingey and his colleagues (November *Proceedings*, p 826).

I am a little concerned, however, that the end result is similar to that of the Madlener operation, which has been abandoned because of its high failure rate. In that operation a loop of fallopian tube was limited in continuity and the effect of putting a silicone ring around the loop of the tube is, in effect, putting a silicone ligature round the tube in the same way.

On the other hand the amount of tubal damage it achieves does allow some room for manœuvre should the patient change her mind, and tubal reconstruction would have a limited chance of success with a reasonably easy procedure, whereas reconstruction, after laparoscopic sterilization is virtually impossible.

Yours sincerely
MICHAEL PUGH
3 November 1976

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