recent survey showed that only 42% of trainees reach the Royal College's target of 50 completed phacoemulsifications within 2 years.[1]

We advocate modular phacoemulsification training, in which the procedure is broken down into component modules. The trainee performs a given module, starting with the easiest, for all suitable patients on a list.[2] The learning curve for each stage of phacoemulsification is steepest during the first attempts, and modular training allows morale-boosting improvements in speed and proficiency during a single list. As only a single module is learnt at a time, advice from the trainer can be exacting without the SHO being overburdened, and can immediately be implemented during the next case. Additional lists can be devoted to gaining competence in a module that is causing problems.

If offered a single procedure per week, we suggest that trainees experience heightened stress when operating, and may attempt to rush parts of the procedure if a time limit is imposed. By contrast, a modular system allows trainees to perform a single part of each procedure carefully without causing delays. If experiencing difficulties, the trainee can ask the trainer to take over, knowing that they will usually have further opportunities to operate on the same list.

As the speed of performing each module improves, the trainee can perform several modules during each procedure without causing the list to overrun. In our experience, within 10 weeks of modular training, first year SHOs can learn to perform complete phacoemulsification procedures quickly and safely. Over 6 months, two consecutive first-year senior house officers underwent modular training in our DGH. Of 149 phacoemulsification procedures, 34.2% were observed by an SHO, 50.3% part performed by an SHO, and 15.4% performed by an SHO alone (a mean of 3.8 procedures per week). One case performed by an SHO (0.67%) required a suture to ensure wound stability.

We would encourage trainers to consider a modular approach, having found that it allows rapid progress in learning phacoemulsification without compromising efficiency or patient safety.

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Sir,

Use of the operating microscope for scleral buckling

A limited number of reports exist in the literature regarding the use of the operating microscope in conventional retinal detachment surgery.[1]

Case report

The majority of surgeons use magnifying loupes or their naked eye when performing scleral buckling surgery. Complications arising from scleral perforation can, however, compromise the anatomic and visual outcome of retinal detachment surgery.[2,3] We performed a case note review of 377 consecutive patients undergoing scleral buckling between June1996 to December 2002 to evaluate the incidence of inadvertent scleral perforation when using the operating microscope. Scleral perforation was recognized by the sudden release of subretinal fluid with softening of the eyeball, presence of fluid vitreous during the passage of the scleral suture, or unusual lack of resistance during the passage of the needle with nonvisualization of the tip of needle. This was confirmed by the presence of choroidal, subretinal, or vitreous haemorrhage on indirect ophthalmoscopic examination.

An Ethibond-spatulated (5/0) suture was used to secure the buckling element to the sclera.

Two patients (0.53%) had inadvertent scleral perforation during circumferential placement of a scleral suture by a trainee surgeon. No macular haemorrhage was seen. The clinical features of these patients after 2 months follow-up are summarized in Table 1.

Table 1 Clinical features

Age/sex	*Preop vision*	*Type of detachment*	*Refractive status*	*Reattachment status*	*Postop vision*
66/Male	Hand motion	Macula off total RD	Emmetrope	Attached	6/60
53/Female	6/9	Macula on superotemporal RD	High myope	Attached	6/12

Comment

Inadvertent scleral perforation is a recognized complication of buckling procedures. Previous studies have suggested inadvertent scleral perforation occurring in 6% of patients and are usually associated with high myopia, thin sclera, radial placement of buckle, and reoperation after failed scleral buckling procedure.[4]

Modern vitreoretinal surgery is inconceivable without the operating microscope. It has, however, not gained wider acceptance in conventional scleral buckling procedures.

Routine use of the operating microscope to secure a scleral buckle offers significant advantages; it facilitates variable magnification with direct illumination and superior stereopsis. A better assessment of the depth of needle pass through the sclera is therefore achieved.

Excellent visualization of a scleral quadrant can be facilitated by clipping two adjacent (2/0 black silk) muscle traction sutures to the head drape with the assistant retracting the conjunctiva. Holding a muscle insertion with Moorfield's forceps in the nondominant hand improves proprioceptive input to the dominant hand when placing the suture in the sclera. A 200-mm objective lens on the operating microscope provides sufficient distance between the eye and the microscope to prevent inadvertent desterilization of instruments touching the microscope. When passing circumferentially orientated posterior sutures, the needle holder should be positioned so that the nongrasping end is pointing upwards (towards the microscope).

Sutures can be passed forehand and backhand and the technique does require the use of the nondominant hand in certain positions. A degree of ambidexterity can be acquired with practice.

During conventional scleral buckling procedure, the surgeon has to move around the table to gain access to the different quadrants of the globe. When using the operating microscope, the surgeon remains in a comfortable seated position all the time. Sitting upright at the operating microscope is also good for posture and less likely to result in back injury.

The operating microscope also facilitates trainees as the supervising surgeon assists by looking through the teaching arm of the microscope and has an excellent and equal view of the operation, and can direct advice accordingly. The magnification and illumination also facilitates the trainee in recognizing surgical anatomy and tissue planes.

We feel that the low rate of scleral perforation in our study may be owing to the routine use of the operating microscope and would advise others to adopt this method.

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Sir,

Prophylactic vitrectomy in acute retinal necrosis syndrome

Acute retinal necrosis (ARN) syndrome is a progressive peripheral necrotizing retinitis caused by herpes