

## Correspondence

### Suxamethonium in surgery for squint

SIR, The procedure of recessing a muscle includes its disinsertion, and if it has been adequately freed it will retract to a greater or lesser extent, allowing it to be sutured conveniently at some measured distance behind the original insertion. Failure to free the muscle completely or any tendency for the muscle not to retract towards the orbital apex may lead to an inadequate result, either because adhesions keep the effective point of insertion further forward than desired or because the new insertion may creep forward.

In the writer's experience failure of the muscle to retract after disinsertion is especially common in the case of the lateral rectus. It might be generally accepted that the lateral rectus can and indeed needs to be set back much further from its original insertion than the medial.

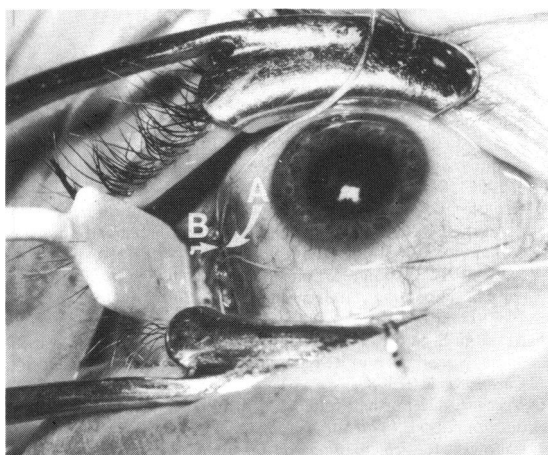


Fig. 1 A is the insertion of the lateral rectus and B is its cut end.

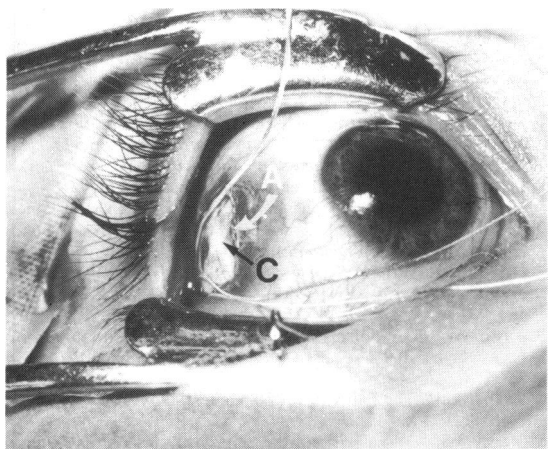


Fig. 2 After suxamethonium injection the globe adducts, exposing a large bare area of sclera, C.

Particularly therefore in recessing the lateral rectus it has been found helpful if 25–50 mg of suxamethonium chloride is given intravenously immediately after disinserting the muscle. Within 30 seconds, the muscle retracts (presumably with its sutures already in place) and there is also a marked adduction of the eye due to the contracture of the unopposed antagonist. This latter is itself helpful as it exposes the sclera in the region designated for reattachment of the tendon; the advantage may be offset, however, by the slight enophthalmos which also results (Figs. 1, 2).

The contracture produced is really quite marked, and the end of the lateral rectus will go back into the orbit at least 8 mm, which puts it well behind the desired reinsertion position. The muscle obviously resists being pulled forward to the new insertion, and although anaesthetists refer to the 'scoline twitch' the contracture is far from a short-lived phenomenon. Exact timings have not been carried out, but both adduction and enophthalmos of the globe as well as the contracted state of the muscle last several minutes and during the course of an average operation do not return to normal.

This confirms some previously unpublished work in which rectus muscles were attached to a strain gauge, and the administration of suxamethonium in these circumstances leads to an increase in isometric tensions which do not spontaneously resolve in 15 minutes, or longer in some cases.

For the surgeon who still carries out myectomy of the inferior oblique, suxamethonium administered immediately after the myectomy will ensure substantial retraction of the cut ends.

The preoperative injection of suxamethonium has a marked effect in the above circumstances only if it has not been used in the induction of anaesthesia, and its employment in the way described may require a modification of anaesthetic technique. If suxamethonium is used as a relaxant prior to intubation, a subsequent perioperative injection will have some, but much less, effect.

In conditions other than concomitant strabismus the response to suxamethonium after disinsertion of a muscle is inconstant. In dysthyroid affection there may be little or no elevation of the eye if suxamethonium is administered following detachment of the inferior rectus, even though passive elevation of the eye is manifestly easier than it is with that muscle still attached. Presumably in such a case the superior rectus is less responsive, being itself involved in the dysthyroid process. The result of the injection of suxamethonium may therefore not only be of technical help; it may also, when taken in conjunction with the passive duction test, assume some diagnostic significance.

The injection of suxamethonium has been used routinely by the writer in lateral rectus recession since 1978. No untoward systemic sequelae have occurred.

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### Radial keratotomy

SIR, Refractive surgery has had little support in the United Kingdom, and it has been felt that groups should be formed to bring together those practising or wanting to practise this