

Sub-Tenon's Block – An Update

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Since its introduction into mainstream Ophthalmic practice in the early 1990's, the single quadrant sub-Tenon's Block (STB) has continued to gain in popularity throughout the world. For example, it is now the commonest anaesthetic technique for cataract surgery in the UK and New Zealand.

Many of the sight-threatening complications associated with peribulbar and retrobulbar anaesthetic techniques are due to passage of a sharp needle into the orbit. The use of a blunt cannula in the sub-Tenon's technique should theoretically reduce these complications. There is now good evidence that the STB is associated with a major (up to 80%) reduction in sight-threatening complications in comparison to peribulbar blocks. (T Eke, 2007).

The STB is also gaining ground in centres that previously used mainly topical anaesthesia, such as the USA. Studies comparing topical techniques with STB indicate that STB provides superior intraoperative analgesia, greater patient satisfaction and better operating conditions. There is evidence that the better operating conditions with STB leads to an improved surgical outcome, with studies showing a 50% reduction in posterior capsule tear and vitreous loss in patients having STB in comparison to topical techniques. (M. Davison, 2007). Furthermore, there appears to be an increased incidence of endophthalmitis in patients who have their surgery under topical anaesthesia.

There is also an increase in the use of STB for non-cataract surgery. This is particularly so for vitreo-retinal procedures, where, in some centres, over 85% of these cases are now performed under STB. Trabeculectomy and adult strabismus surgery is also now predominantly performed under STB in Auckland.

There is a trend for the increased use of non-physician anaesthetists in many countries. The administration of sub-Tenon anaesthesia by a Nurse Specialist has been described in the UK and is currently being evaluated in Auckland.

In summary, STB has advantages over both sharp needle and topical anaesthetic techniques and there is justification for its continued rise in popularity.