Modified lens aspiration needle

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The use of a needle for aspiration of soft lens material is now an accepted surgical procedure. Previous descriptions of this operation have generally required a specially constructed needle. A simple modification to a standard needle which can be easily performed in an engineering workshop is described below.

Construction

The shaft of a standard anaesthetic mixing needle has been reduced to a length of 20 mm. The end of the needle has been closed with silver solder and rounded off with a smooth polished finish; a side opening has been introduced close to the end of the needle with a diameter of 1.1 mm.

Operative technique

A cruciate incision of the anterior lens capsule is made with a Barkan goniotomy knife, the pupil having been fully dilated. This incision is enlarged with a keratome or a broad needle and the large-bore aspiration needle is introduced into the anterior chamber attached to a 5 ml. syringe of normal saline. Aspiration and irrigation are then performed through the same needle alternately. Clearing of the pupillary area of soft lens matter can easily be seen ophthalmoscopically. Two silk sutures are inserted at the limbal incision and the anterior chamber is reformed with saline. The administration of topical mydriatics and steroids can then be started immediately.

The advantages of a side-bore aspiration needle discussed by Gass (1969) have been verified by the present author. The large bore of the present needle permits rapid aspiration of lens material with less effort or suction and therefore shortens operative time and possible trauma. The side opening allows greater manoeuvrability within the anterior chamber with less risk of damage to the posterior capsule and vitreous face than does direct end-on aspiration. This needle has now been in use by the author and other surgeons for over a year.

Summary

A modified side-bore cataract aspiration needle has been evolved from a standard anaesthetic mixing needle.

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Reference

GASS, J. D. M. (1969) *Arch. Ophthalmol.* (Chicago), **82**, 87