A suction instrument for microsurgery

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Troublesome bleeding from small blood vessels occurs during operations on the cornea and sclera. The bleeding from the smaller blood vessels will stop spontaneously if given time, the larger vessels may need to be cauterized. The traditional way of dealing with the blood by mopping it up with cotton swabs or cellulose sponges has some disadvantages. The bleeding point and the surrounding area has to be touched with a swab thus interrupting the operation. Bleeding often continues after the swab has been removed so that a completely dry field is available for surgery for only a fairly short period. The blood from a vessel soon after swabbing prevents accurate cautery application to a bleeding point as it quickly becomes obscured.

All these difficulties can be overcome by using a suction instrument (see Figure) instead of a swab for clearing an operation site of blood. Dissection can usually be carried on while the instrument is being used as it functions effectively even when the tip is a little away from the bleeding point. It

can also be used to keep the whole of an incision or a plane of cleavage dry by placing the tip of the instrument at the most dependent point of the area of dissection.

Microsurgery requires small instruments and small-bore suckers become blocked by blood clots. This possibility is allowed for by making the narrowest part of the instrument a disposable tip which can easily be changed if required. The disposable tip is obtainable in various sizes; a 1-mm tip is probably adequate for most microsurgical techniques. It is made of flexible plastic which is less likely to damage delicate tissues than a rigid metal one.

The instrument is most effective when it is used during microdissection of the cornea or sclera in cases in which there is troublesome bleeding or an accumulation of fluid which obscures the site of operation. It cannot be used satisfactorily in situations where Tenon's capsule or the conjunctiva can be sucked into the tip of the instrument. It should not be used when the globe has been penetrated. It can be attached to any of the suction pumps usually used in operating theatres.

The instrument is made by Keeler Instruments Ltd

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FIGURE Suction instrument