

REUSE OF MICROSUTURE MATERIAL

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ABSTRACT :

Described here is simple technique of reusing micropoint needles and left over broken pieces of 8-0 and 10-0 monofilament nylon.

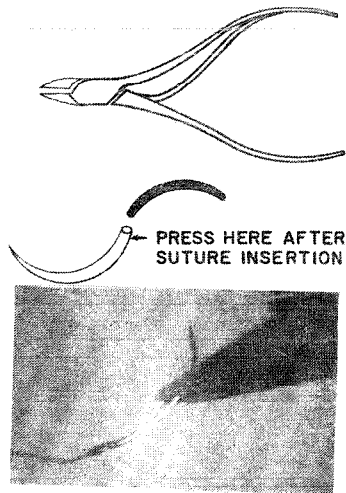
These sutures so prepared are then available for use in experimental laboratory microsurgery work resulting in substantial saving on costs.

INTRODUCTION :

One of the biggest limitations in practice of microsurgery in a developing country is non-availability of the microsutures. In clinical or experimental work this precious broken or left over suture material gets wasted: A simple technique to utilize such used microneedles and 8-0 or 10-0 sutures with the help of simple instruments is described. 'New sutures', thus prepared, can now be used for practising on placental vessels or experimental animals successfully.

MATERIAL AND METHODS :

Material required is a small plier, very much similar to a cuticle remover used by beauticians for manicuring. This is needed for swaging the suture



Photographs showing

- i) Small pliers - a cuticle remover of beautician and technique of reswaging
- ii) 10-0-'Neo suture' with minimal noticable deformity at the needle end.

to the needle. Micropoint needle (8-0 or 10-0) is held with the bore facing upwards under the operating microscope or 6x magnifying loupe. Residual suture in the needle bore prior to this should be burnt away by holding this end for a few seconds on a spirit lamp flame. A piece of 8-0 or 10-0 suture material can now be introduced into the respective size needle by holding the needle in one hand and the tip of the suture with forceps in the other. Needle is kept steady to prevent the suture from slipping out. Then bore end of the needle carrying the suture is pressed with pliers and slightly flattened. By giving it a gentle pull its fixation can be confirmed. Suture is now ready for use.

DISCUSSION :

Microvascular surgery is a rapidly growing branch and has widespread applications. However to become competent, practice in experimental laboratory is necessary. Prohibitive high cost of microvascular suture material limits the scope, of practice and to gain profeciency in this technique. A simple technique of utilizing left over

microneedles and broken pieces of suture material, to make new sutures to practice various microneuronal and microvascular suturing techniques overcomes this difficulty. Increased vessel trauma due to altered shape of the bore end of the needle cannot be over looked. It can be substancially reduced, if the bore end of the needle is compressed vertically, so that the hole has its long axis parallel to the vessel edge.

CONCLUSION :

Cost effective and simple technique to put to reuse left over bits of suture material and needles, is presented.

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