



FIG. 1.

she said she had known for some time that she was allergic to any type of rubber; garter belts or girdles always produced the same type of reaction. The photograph (fig. 1) shows quite well the area of bilateral involvement on the face.

The condition was treated with white vaseline and no other medication was used. The patient made a satisfactory recovery and when she was discharged on the ninth postoperative day there was no evidence of the dermatitis.

This case illustrates the importance of the

preoperative consultation by the anesthesiologist. Although such visits may be thought to have been adequate, many times it is found that patients do not give information which is most important. It would have been interesting in this case to have known the reaction which might have occurred had a rubber endotracheal tube been used.

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A PLASTIC NEEDLE

The plastic needle consists of a short length of transflex* tubing of suitable diameter, fixed at one end to a hub and

tapered to its inside diameter at the free end, through which a steel needle has been passed as a stylet.

*Tubing manufactured by the Irvington Varnish and Insulator Co., Irvington 11, New Jersey.

TECHNIC

The stylet needle is a 3 inch, number 19 needle (fig. 1a). The cannula hub is a

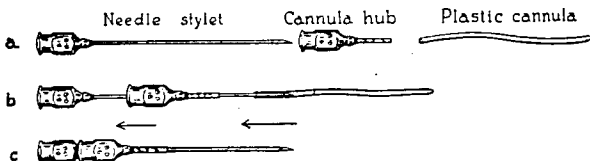


FIG. 1. Details of the assembly of the plastic needle.

shortened number 16 needle (fig. 1a), the shaft of which is reduced to a length of $\frac{3}{8}$ inch and is shallowly notched in several places to provide firm junction with the tubing. The tranflex tubing used is number 22, in 3 inch lengths, and is referred to as the "cannula" (fig. 1a). The plastic tubing is attached to the cannula hub, over the stylet needle (fig. 1b), by a process of dilation, shrinkage, hardening and tapering to complete the plastic needle (fig. 1c).†

The 3 inch length of tubing is soaked in acetone for two minutes and is rinsed in water for a few seconds. The limp, enlarged tube is then slipped over the stylet-needle, which has been passed through the cannula hub, care being taken not to perforate the soft tubing with the needle point (fig. 1b). With the tube in place over the cannula hub, it is allowed to dry ten minutes. The tip (1 inch) of the plastic needle is again dipped into acetone for two minutes, rinsed quickly in water and allowed to dry ten minutes. The entire assembly is autoclaved twenty minutes in a cotton-stopped test tube. When the assembly is cool, a smooth taper is carefully placed on the tubing with a rotary cloth buffer, so that the edge of the tubing coincides with the bevel of the needle (fig. 1c). This process will eliminate the square "shoulder" at the junction of the free end of the cannula and the stylet-needle. Finally, the plastic needle is sterilized by autoclaving for twenty minutes at 15 pounds' pressure.

USE OF NEEDLE

The plastic needle is introduced into a vein as is an ordinary needle. When the

† The Plastic Needle, completely assembled, can be obtained from the Rochester Products Company, Rochester, Minnesota.

needle has been advanced so that the tip of the cannula is well into the vein, the stylet is withdrawn approximately $\frac{1}{4}$ inch, and with a gentle forward motion on the cannula hub, the needle is advanced as far as desired. The stylet needle is then removed entirely and any fluid desired is attached at the cannula hub. The cannula hub may be fastened in the usual manner with adhesive tape.

ADVANTAGES AND APPLICATIONS

The cannula has the advantages that it rarely punctures the wall of the vein as does a steel needle, its flexibility allows a greater degree of comfort for the patient, and the introduction is simpler than the introduction of a plastic tube through a steel needle.

The possible applications of the plastic needle are numerous. It has proved to be most useful in the prolonged intravenous administration of fluids. A modification of the needle has been used in caudal anesthesia to replace catheter or malleable needle. Its value is suggested for such applications as continuous nerve block, such as sympathetic trunk, brachial plexus and stellate ganglion blocks.

REFERENCE

1. Massa, D. J.; Lundy, J. S.; Faulconer, A., Jr., and Ridley, R. W.: Plastic Needle, Proc. Staff Meet. Mayo Clin. 25: 413-415 (July 5) 1950.

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