Needle for use during percutaneous compression of gasserian ganglion for trigeminal neuralgia

Technical note

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A needle system is described that facilitates the performance of percutaneous compression of the gasserian ganglion.

KEY WORDS • trigeminal neuralgia • geniculate ganglion • percutaneous compression • instrumentation

**WHEN Mullan and Lichtor** reported the technique of percutaneous compression of the trigeminal ganglion, they suggested the use of a standard liver-biopsy needle. Belber and Rak reported using a No. 13 needle with a blunt stylet that is removed when the point of the needle is engaged into the foramen ovale. Because of the risk of catching the Fogarty balloon catheter on a sharp needle tip, a new needle has been developed and is described here.

**Description of the Device**

A standard No. 13 3⁄8-in. Cone biopsy cannula was modified as follows (Fig. 1): 1) the outer cannula was shortened 1 cm and the end was smoothed and polished; 2) one blunt stylet was left unchanged; and 3) a stylet from a second Cone needle was sharpened to a gradual point.

The Cone needle with the sharp stylet is passed through a small stab wound and directed toward the foramen ovale. The sharp stylet is replaced by the blunt stylet, which is advanced into the foramen ovale. The outer cannula is then slid forward to engage the foramen, and the stylet is removed. The No. 4 French Fogarty balloon catheter is passed through the cannula to lie in Meckel's cave so that compression can be accomplished.

**Fig. 1.** Cone biopsy needle (lower) with sharp (center) and blunt (upper) stylets.

**References**


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