Technical suggestion

Modified ventricular cannula with side inlet design

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This modification of a silicone rubber ventricular cannula with a side inlet (Fig. 1) provides a system for external ventricular drainage plus the capability to either record pressure or introduce medication. A standard occipital or frontal burr hole is placed, the dura incised, and the ventricular cannula with inner metal stylet inserted into the ventricular system. The stylet is then removed and the system sutured to the scalp so that the dome and side arm are outside the scalp closure. The side arm follows the contour of the skull and may be easily attached to an external ventricular drainage system by intravenous tubing equipment. Sterile dressings can then be applied without the problems of kinked tubing or projecting mechanical devices. This system has been used with both occipital and frontal burr holes.

The ventricular cannula can be made with an opaque marker and in lengths from 5 to 9 cm. It has been manufactured as a disposable unit but can be cleaned and reused.* The system has been used successfully in 20 cases. Following standard ventriculography it may be retained for various purposes such as the intraventricular instillation of antibiotics or short-term ventricular drainage. There have been no complications in our series. It is anticipated that the incidence of infection during prolonged ventricular drainage will be less or no greater than with other systems.

Fig. 1. Left: Side arm cannula system with stylet. Right: Stylet in place for introduction into the ventricular system.
Neurosurgical Techniques

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