bral disc. A variant* used by the author since 1940 is illustrated because of certain advantages: (1) The blade is derived from a Hibbs or Semmes retractor, permitting an extremely short incision. (2) The opposite blade has been replaced by a blunt hook which fits between the spinous processes, thus remaining clear of the operative field of vision. (3) Both blade and hook are hinged on a swivel joint, permitting the self-retaining retractor arms to be elevated in order to fit the contour of the back, and to be swung to either side of the blade and hook. This permits a more lateral angling of the curette and pituitary rongeur in order to reach the central core of the nucleus pulposus.

Although this retractor works equally well in all positions, a most satisfactory combination has been its use (1) with an off-center incision overlying the facets, (2) through an extraperiosteal exposure of the laminae, and (3) with the patient lying on his side in kidney position. The result has been a maximum of exposure through a minimum of incision.

REFERENCES

COMBINATION SUCTION-CAUTERY TIP FOR USE IN NEUROLOGICAL SURGERY

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The value of electrocautery in neurological surgery as a hemostatic adjunct has been recognized by all neurosurgeons. Operating time is shortened, efficient hemostasis insured,

* Manufactured by Codman & Shurtleff, Boston, Mass.
† Suggested by D. H. Werden of San Diego, Calif.
‡ Suggested by T. I. Hoen of New York City, N. Y.
and foreign bodies, such as silver clips, sutures, and ligatures are eliminated by this relatively simple expedient. Likewise the use of suction apparatus has proved of value in facilitating removal of blood, irrigating solution, cerebrospinal fluid, pus, and any other fluid or soft degenerated tissue from the small operative fields of neurosurgery, where the usual measures employed in general surgery are not feasible.

This communication describes a combination suction-cautery tip which we have used for the past four years. We have found it to be safe, efficient, easy to use, and less cumbersome and bulky than the methods heretofore described for use of electrocautery in a field covered with fluid. Pictures in the literature showing the technique of a neurosurgical procedure quite often show two or even three instruments being used for hemostasis and suction in the field. This combined tip obviates unnecessary manipulation and obstructions to the surgeon’s line of vision by utilizing a single channel no more than 3–4 mm. in diameter to accomplish both suction and cauterization.

Several visiting neurosurgeons who have seen this tip in use have been favorably impressed by its compact effectiveness and subsequently have had similar instruments made for their own use. Poppen described a combination suction-cautery tip of somewhat similar construction using a Frazier suction tube with a finger release valve as the basic piece. His instrument was covered with rubber tissue which deteriorated and then cauterized at places other than the desired point. For that reason, he recommended the combination tip not be used except extracranially and outside the spinal canal.

The tip we use was made by V. Mueller & Company by attaching an electric terminal to the widely used Frazier suction tube with a finger release valve and then coating the metal parts with an insulating rubber compound to prevent cauterization of tissues anywhere except at the 1–2 mm. of exposed metal at the very end of the tube. An extension was added to the proximal end where the suction hose is slipped on to prevent the hose from coming off as readily as it usually does. Because the original end of the cautery cord connecting the combined tip to the Bovie unit slipped out quite easily, a Luer-lock type end has been added to the most recent “combined tip.” A contemplated change is to have “combined tips” made of larger diameters to be used, for example, in sucking out a soft tumor which would clog the present narrow tube.

The “combined tip” can be boiled or autoclaved repeatedly and safely along with the rubber suction tubing and cautery lead to the Bovie unit.

Although many uses for this simple apparatus soon became apparent, it is particularly valuable in rapidly cutting across the white matter in performing a lobotomy or lobectomy and in removing the interior of tumors, especially vascular ones.

REFERENCE