

Letters to the Editor

Huber Needle and Tuohy Catheter

To the Editor:

On April 23, 1941, Edward B. Tuohy¹ published his experience with continuous spinal anesthesia in the *Proceedings of the Staff Meetings of the Mayo Clinic*. The method of continuous spinal anesthesia was first used in the Mayo Clinic in November, 1940, according to the technique and equipment advocated by William T. Lemmon.² It consisted of a special operating table mattress, special spinal needles (18-gauge, with stylet) that were soft and malleable, a 10-mL Luer-lok syringe with special stopcock connections, and rubber tubing to connect the spinal needle with the glass syringe. The rubber-covered mattress had a 7-inch (18-cm) gap that paralleled the lumbar portion of the spinal column when the patient was lying on the mattress.

Three years later, in March, 1944, Tuohy¹ described an alternative method in lieu of a malleable needle for continuous spinal anesthesia: use of an ureteral catheter. The idea of using an ureteral catheter for continuous spinal anesthesia came to Captain Tuohy, who served then in the Medical Corps, U.S. Army, from the reports of the use of the ureteral catheter for caudal anesthesia³ and for continuous subarachnoid drainage of meningitis advocated by Love.⁴ On June 14, 1944, Major Tuohy,⁵ who was then the chief of anesthesia and operative service, Percy Jones General Hospital, Battle Creek, Michigan, described this technique before the section on anesthesiology at the ninety-fourth annual session of the American Medical Association in Chicago. In the article published on May 26, 1945, in the *Journal of American Medicine*, Tuohy⁶ said that "the direction (cephalad or caudad) which the catheter will advance in the subarachnoid space after the tip of the catheter leaves the end of the guiding needle cannot be predicted positively; however, if the round tip of the catheter is bent slightly before it is introduced into the lumen of the needle, I have found that the catheter will advance cephalad in most cases."

In a later article published in 1945, Tuohy⁶ mentioned for the first time a 15-gauge needle with a Huber point. Using this kind of needle, he could "direct the catheter either cephalad or caudad as desired." No reference was given by Tuohy to the use of the name of Huber. Cousins and Bridenbaugh,⁷ in their textbook, *Neural Blockade*, mentioned that Tuohy "performed continuous spinal anesthesia by means of a ureteral catheter introduced in

the subarachnoid space through a needle with a Huber point." They gave no reference to the "Huber point" either. Ronald Miller,¹⁰ in his textbook, *Anesthesia*, provides a nice photograph of an "18-gauge Huber needle for continuous spinal catheter insertion," but gives no reference. No other textbook in anesthesia tells us about Huber, whose needle—or "point"—revolutionized regional anesthesia.

Medline search yields only articles on a Huber-point needle in the Port-a-Cath implantable device (Vita Needle Company, Needham, MA)—no references that address the question of who Huber was or when he first described his needle (or his "point"). The issue is that to the best of my knowledge, there is no documentation in the medical literature of Huber's description of his needle.

I would not have bothered the readers with this "minor" subject if I had not been asked this question by the editor concerning another article I have submitted. The disappointment of my inability to obtain an answer to this question despite my efforts and those of my colleagues led me to postulate that maybe there was a Huber.

However, a search in patents brought me to U.S. patent No. 2,409,979, applied for on March 14, 1946, by Ralph L. Huber from Seattle, Washington. In his application, he described a hypodermic needle with a "transverse, curved wall . . . end portion."

In a recent research for another article I have submitted, I found that Winnie said that "history will recall what is published, not what is patented; and no subsequent publication will make up for failure to describe a new piece of technology in the medical literature" (AP Winnie unpublished correspondence, March 17, 1994). Winnie is right, at least concerning the last 50 years, which benefited from Huber's contribution to anesthesia.

There is some injustice in the history of anesthesia on this subject. Every anesthesiologist knows what the Tuohy needle is, but no anesthesiologist—until now—knows that the Tuohy needle is the Huber needle. Tuohy only used it for the introduction of the Tuohy catheter; he did not develop it. I do not believe that all the companies that sell a "Tuohy needle" will change the name to "Huber needle" now, but maybe in the year 2045 . . .

Joseph Eldor, M.D.
Department of Anesthesia
Misgav Ladach General Hospital
Jerusalem, Israel

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Editor's Reply:

I am indebted to Dr. Eldor for his investigation of who Huber was. Do any of our readers have any comments on the matter?—G.W.O.

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Backache After Spinal Anesthesia

To the Editor:

Recent correspondence¹ has made the suggestion, based on incidental data, that multiple needle insertions in performing spinal anesthesia do not lead to a greater incidence of backache than is normally seen following spinal anesthesia.

The authors omitted mention of a controlled study of 150 women undergoing elective cesarean delivery under spinal anesthesia in which the effect of the number of needle insertions on the postoperative complication rate was assessed.² Patients were randomly allocated to have a 22-gauge Whitacre, a 25-gauge Whitacre, or a 26-gauge Quincke needle inserted into the lumbar subarachnoid space.

Patients were assessed at 24 hours by questionnaire and by a visit from an observer who had no knowledge of the needle used or the number of needle insertions. Early postoperative backache occurred in 22.4% (11/49), 8.5% (4/47), and 8.3% (4/48) with the 22- and 25-gauge Whitacre and Quincke needles, respectively. The differences were not significant between groups. However, the incidence of backache for all needles was 8.6% (9/105), 12.5% (3/24), and 46.7% (7/15) for, respectively, one, two, and more than two

attempted needle insertions. The significant difference between groups ($P < .001$) was attributable entirely to the number of patients reporting backache after more than two attempted needle insertions.

The increased incidence of backache following repeated spinal needle insertion was presumed to be due to soft tissue or periosteal trauma. No backache was sufficiently severe to be followed beyond 72 hours after the operation.

Leslie E. Shutt, F.R.C.A.

*Sir Humphry Davy Department of Anaesthesia
St. Michael's Hospital
Bristol, United Kingdom*

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Transient Motor Deficit Without Sensory Loss Following Subarachnoid Sufentanil

To the Editor:

The case reports by Newman et al.¹ about muscular spasm in the lower limbs after subarachnoid administration of epinephrine and sufentanil in laboring women are interesting observations. We would like to report a case of a 30-year-old gravida 3 in labor who received 10 µg of sufentanil during the combined spinal-epidural technique for labor analgesia. She claimed to be allergic to lidocaine administered to her during a dental procedure. Therefore, amide local anesthetics were avoided and only one dose of subarachnoid sufentanil was administered. No paresthesia was noted either during insertion of the spinal needle, epidural catheter, or at the time of subarachnoid injection. She delivered spontaneously 4 hours after the subarachnoid injection of sufentanil with adequate pain relief. No apparent sensory or motor loss was noted in the immediate postpartum period. Approximately 8 hours later, she was noted to have an unsteady gait. She was unable to take a step forward when she tried to mobilize herself out of the bed. She complained of pain on the medial aspect of both her thighs on movement; inability to take a step forward; and inability to flex her knees. She had no sensory loss but had bilateral weakness of the flexor muscles of the knee. A neurology consultation was obtained and no definitive etiology was found. She improved clinically within 24 hours and her symptoms gradually resolved over the next 2 days. No further neurologic evaluation was done. She was discharged on the 3rd postpartum day.