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Securing Epidural Catheters to Tuohy Connectors

To the Editor:—With the popularity of continuous epidural anesthesia in hospitalized and ambulatory patients having catheter-infusion pump systems, some technical problems have been encountered that were not previously seen in patients having regional anesthesia in the delivery or operating room.

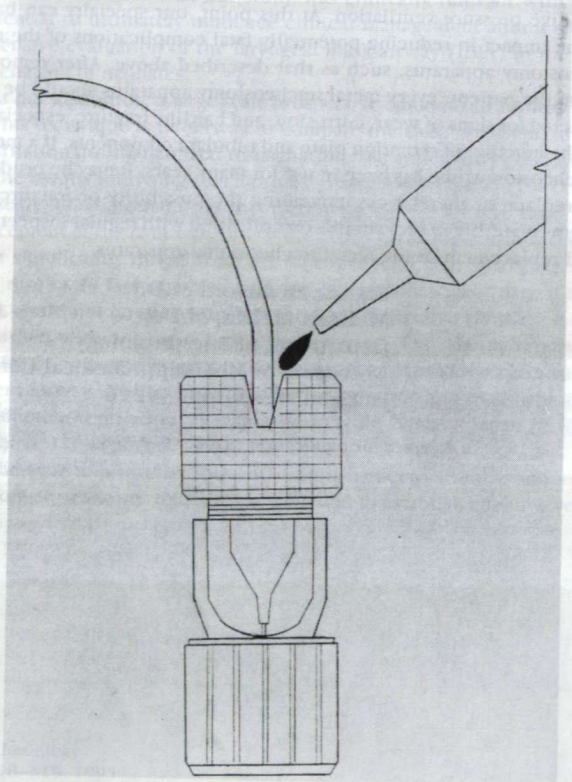

Fig. 1. A drop of cyanoacrylate applied into the well of the Tuohy connector with the epidural catheter in place and secured.

The disconnection between the catheter and the Tuohy connector has been the most common technical problem noted in a series of patients with nonmalignant chronic pain treated with temporary epidural catheter infusions of analgesia and local anesthetics at their home for up to 11 weeks.[1] After trying a variety of connectors and taping procedures, we found that the most effective means of preventing disconnection was to apply a small drop of cyanoacrylate ester ("Super glue") in the connectors well after the catheters were inserted into the connector's chamber and the cylindrical and square portions were inserted (fig. 1). The integrity of the catheter wall has not been affected, nor have obstructions been noted in the 110 cases in which the catheters have been kept infusing between 12 and 42 days while the patients were ambulatory and conducted their daily activities.

If the connector needs to be replaced, the catheter external wall is cleaned, using a sterile gauze with betadine, swabbed with alcohol, and cut with a sterile scalpel blade; then a new sterile connector is applied as is customary. After tightening it in the connector chamber, the catheter is secured with a drop of cyanoacrylate in the well, and tape is applied around the catheter-connector units. Consistently, "the drop in the well" has secured the catheter firmly.

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Reference

1. Aldrete JA, Brown CA, Yarcho KL: Cervical radiculopathy treated by infusion of epidural analgesics in homebound patients. J Clin Anesth 6:33–36, 1994

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