- Trudell JR: A unitary theory of anesthesia based on lateral phase separations in nerve membranes. Anesthesiology 46:5-10, 1977
- Lee AG: Model for action of local anesthetics. Nature 262: 545-548, 1976
- Browning JL: Discussion of the effects of local anesthetictype drugs on membranes: A model for electrical excitability, studies on the excitable membrane of *Paramecium aurelia*. Ph.D. Thesis, University of Wisconsin, Madison, 1976, pp 77-93
- 4. Sheetz MP, Singer SJ: Biological membranes as bilayer couples.

- A molecular mechanism of drug-erythrocyte interactions. Proc Natl Acad Sci USA 71:4457-4461, 1974
- Trudell JR, Hubbell WL, Cohen EN: The effect of two inhalation anesthetics on the order of spin-labeled phospholipid vesicles. Biochim Biophys Acta 291:321, 1973
- Rosenberg PH, Eibl H, Stier A: Biphasic effects of halothane on phospholipid and synaptic plasma membranes: A spin label study. Mol Pharmacol 11:879–882, 1975
- Hsia JC, Boggs JM: Protein perturbation hypothesis of anesthesia. Prog Anesthesiol 1:327-338, 1975
- Miller KM, Pang KY: General anesthetics can selectively perturb lipid bilayer membranes. Nature 263:253-255, 1976

(Accepted for publication July 11, 1977.)

Anesthesiology 47:534, 1977

Location of CVP Catheters

To the Editor: —Drs. Burgess, Marino and Peuler¹ are not correct in their claim that the effects of head position on the location of venous catheters had not been previously reported. We published our findings from a randomized trial in 46 patients in 1975.² In contrast to Dr. Burgess and his co-workers, we found that there seemed to be no benefit from turning the patient's head towards the side of insertion. Neck compression provided a quick and simple method for detecting a malpositioned catheter tip in the internal jugular vein, an increase in the recorded pressure of 10 cm H₂O or more being seen when pressure was applied to the root of that side of the neck.

JEAN LUMLEY M.B., B.S., F.F.A.R.C.S.
W. J. RUSSELL M.B., B.S., F.F.A.R.C.S.
Departments of Anaesthesia
Royal Postgraduate Medical School
London, England, and
Royal Adelaide Hospital
Adelaide, S. Australia

REFERENCES

- 1. Burgess GE III, Marino RJ, Peuler MJ: Effect of head position on the location of venous catheters inserted via basilic veins. Anesthesiology 46:212-213, 1977
- Lumley J, Russell WJ: Insertion of central venous catheters through arm veins. Anaesth Intens Care 3:101-104, 1975 (Accepted for publication July 14, 1977.)

Anesthesiology 47:534, 1977

Topical Anesthesia Lessons Sore Throats from Tubes

To the Editor: — Dr. Menias, in discussing the article by Loeser et al., 2 speculated that the use of lidocaine, 5 per cent, ointment might have been responsible for the appearance of the sore throats reported in that study. He cites his clinical impression that the use of non-anesthetic lubricants has decreased the incidence of postoperative sore throat in his patients. In 1965, Lund and Daos³ reported data that do not support Dr. Menias' supposition. They examined the incidence of postoperative sore throat in a series of 1,025 patients whose tracheas were intubated during general anesthesia. Patients were assigned to one of five treatment groups in which the endotracheal tubes were coated with: 1) nothing; 2) a heavy viscous base; 3) a heavy base containing lidocaine, 5 per cent; 4) a light foamy base; or 5) a light foamy base with pramoxine, 1 per cent. The incidences of sore throat in groups 2, 4 and 5 were virtually the same as that in the control group (about 22 per cent). Sore throat

was significantly less frequent (6.6 per cent, P < 0.001) only in group 3. Available evidence indicates that lidocaine, 5 per cent, ointment decreases, not increases, the incidence of postoperative sore throat.

THOMAS J. POULTON, M.D.
Chief Resident, Department of Anesthesia
North Carolina Baptist Hospitals
300 South Hawthorne Road
Winston-Salem, North Carolina 27103

REFERENCES

- Menias OM: Sore throat postoperatively from topical anesthesia. Anesthesiology 46:438, 1977
- Loeser EA, Orr DL, Bennett GM, et al: Endotracheal tube cuff design and postoperative sore throat. Anesthesiology 45:684–687, 1976
- Lund LO, Daos FG: Effects on postoperative sore throats of two analgesic agents and lubricants used with endotracheal tubes. Anesthesiology 26:681–683, 1965

(Accepted for publication August 4, 1977.)