

Anesthesiology
55:334, 1981

Central Action of Spinal Opiates

To the Editor:—Recent work and our own experience has shown that central effects including respiratory depression, vomiting, and facial analgesia can occur when opiates are injected in humans into the cerebrospinal fluid at a lumbar interspace.¹ This finding in humans contrasted with animal studies. However, the only animal model where central effects were evaluated was the Yaksh model² where a cannula was inserted through the cisternal membrane and fed caudally. This cannula may have caused partial obstruction to free dispersion of the drug to the respiratory centers. Obstruction is likely to be maximal in the cervical region where the spinal cord is thickest.

Recently an investigation into the action of droperidol and spinal morphine in the rat was published.³ We would like to draw attention to the modification in the technique used. In this investigation the cannula was inserted directly by laminectomy near the appropriate region, allowing free cephalad dispersion of the drugs, though in this case central effects were not evaluated. As clinicians we felt that one of the main reasons preventing widespread use of spinal narcotics in humans is the occurrence of central effects. Further research including work with animals is required and we suggest that investigation of central ef-

fects would be carried out best with this newer approach to delivery of spinal narcotics.

MURAT BAHAR, M.D.,
Research Fellow

IAN A. ORR, M.B., FFARCSI,
Research Fellow

JOHN W. DUNDEE, M.D., Ph.D. FFARCS,
Professor

*Department of Anaesthetics
The Queen's University of Belfast
Whitla Medical Building
Belfast BT9 7BL*

REFERENCES

1. Davies GK, Tolhurst-Cleaver CL, James TL: Respiratory depression after intrathecal narcotics. *Anaesthesia* 35: 1080–1083, 1980
2. Yaksh TL, Rudy TA: Studies on the direct spinal action of narcotics in the production of analgesia in the rat. *J Pharmacol Exp Ther* 202:411–428, 1977
3. Kim KC, Stoelting RK: Effect of droperidol on the duration of analgesia and development of tolerance to intrathecal morphine. *ANESTHESIOLOGY* 53:S219, 1980

(Accepted for publication February 6, 1981.)

Anesthesiology
55:334–335, 1981

Two New Drugs Improve Anesthetic Management in Obstetrics

To the Editor:—We congratulate Drs. Datta and Alper on their excellent and comprehensive review "Anesthesia for Cesarean section."¹ Two recent papers from this department are relevant to that article. Firstly, we have demonstrated that domperidone, another new D₂ dopaminergic receptor antagonist,² has a similar constricting action on the lower esophageal sphincter to metoclopramide.^{1,3,4} However, domperidone offers the potential advantage in that it fails to cross the blood-brain,⁵ and possibly also the placental barrier, making the drug less likely to cause undesirable side effects in the fetus.

Secondly, etomidate, a new imidazole derivative, in our hands has proved the only intravenous induction agent superior to thiopentone at elective Cesarean sec-

tion,⁶ a finding recently confirmed by other researchers.^{7,*}

We believe these two new drugs worthy of consideration in the preparation of patients for, and induction of, obstetric anesthesia and accordingly commend them to your readers attention.

J. W. DOWNING
Professor of Anaesthetics

J. G. BROCK-UTNE
Professor of Physiology

* Personal communication: Dr. Michael Rosen, Welsh National School of Medicine, Cardiff.

E. MANKOWITZ
Senior Anaesthetist

*Department of Anaesthetics
University of Natal
P. O. Box 17039, Congella 4013
Durban, South Africa*

REFERENCES

1. Datta S, Alper MH: Anesthesia for cesarean section. *ANESTHESIOLOGY* 53:142-160, 1980
2. Brock-Utne JG, Downing JW, Dimopoulos GE, et al: Effect of domperidone on lower esophageal sphincter tone in late pregnancy. *ANESTHESIOLOGY* 52:321-323, 1980
3. Brock-Utne JG, Dow TGB, Welman S, et al: The effect of meto-

4. Brock-Utne JG: Domperidone antagonist the relaxant effect of atropine on the lower esophageal sphincter. *Anesth Analg (Cleve)* 59:921-924, 1980
5. Laduron PM, Leysen JE: Domperidone, a specific in vitro dopamine antagonist, devoid of in vivo central dopaminergic activity. *Biochem Pharmacol* 28:2161-2165, 1979
6. Downing JW, Buley RJR, Brock-Utne JG, et al: Etomidate for induction of anaesthesia at caesarean section: Comparison with thiopentone. *Br J Anaesth* 51:135-140, 1979
7. Ionescu T, Besse TC, Smalhout B: Etomidate during caesarean section, *General Anaesthesia in Obstetrics. Seventh World Congress of Anaesthesiologists, Hamburg, West Germany. Amsterdam, International Congress Series, No. 533, Excerpta Medica, Volume 17, 1980, p 318*

(Accepted for publication February 11, 1981.)

Anesthesiology
55:335, 1981

Cannulation of the Internal Jugular Vein: Variation on a Theme

To the Editor:—When one reads the letter on cannulation of the internal jugular vein by Gibbs and Arandia¹ one notes the striking similarity to an article by Civetta *et al.*² This latter article describes a technique in which a 22-gauge spinal needle is passed through the center of a 14-gauge steel needle and the spinal needle is used to locate the internal jugular vein. When the jugular vein is located, the 14-gauge needle is advanced over the spinal needle into the vein, the spinal needle is withdrawn, and a plastic cannula is passed through the 14-gauge needle and threaded into the vein. The larger needle then is retracted, leaving the smaller catheter within the jugular vein.

The modification described by Gibbs and Arandia is certainly more attractive, since the catheter remaining in the vein is larger than either of the components which have pierced the vein. Thus, the larger cannula would be more likely to seal the puncture in the venous wall and would reduce the probability of bleeding or hematoma formation. Although the modification is useful, reference should have been made to the previous article.

There are many descriptions of central venous cannulation in the literature; a representative, but by no means comprehensive, list follows.¹⁻⁸

CHARLES M. CHRISTIAN, II, M.D., Ph.D.
Assistant Professor

*Department of Anesthesiology
Division of Cardio-Thoracic Anesthesiology
Box 3094
Duke University Medical Center
Durham, North Carolina 27710*

REFERENCES

1. Gibbs C, Arandia H: A New technique for location and cannulation of the internal jugular vein. *ANESTHESIOLOGY* 54: 89, 1981
2. Civetta JM, Gabel JC, Gerner M: Internal jugular-vein puncture with a margin of safety. *ANESTHESIOLOGY* 36:622-623, 1972
3. English ICW, Frew RM, Pigott JPG, et al: Percutaneous cannulation of the internal jugular vein. *Thorax* 24:496-497, 1969
4. Defalque RJ: Percutaneous catheterization of the internal jugular vein. *Anesth Analg (Cleve)* 53:116-121, 1974
5. Blitt CD, Wright WA, Petty WC, et al: Central venous catheterization via the external jugular vein. *JAMA* 229:817-818, 1974
6. Petty C: An alternate method for internal jugular venipuncture for monitoring central venous pressure. *Anesth Analg (Cleve)* 54:157, 1975
7. Rao TLK, Wong AY, Salem MR: A new approach to percutaneous catheterization of the internal jugular vein. *ANESTHESIOLOGY* 46:362-364, 1977
8. Belani KG, Buckley LF, Gordon, JR, et al: Percutaneous cervical central venous line placement: a comparison of the internal and external jugular routes. *Anesth Analg (Cleve)* 59:40-44, 1980

(Accepted for publication February 11, 1981.)