Spinal anaesthesia with a 24-ga pencil point needle was administered using 12.5 mg hyperbaric bupivacaine 0.5%. Intraoperative analgesia was excellent and surgery proceeded uneventfully. A 2100 g female infant was born with Apgar scores of seven, eight, and nine at one, five, and ten minutes. Following discharge from hospital the patient's headaches improved but symptoms of cranial nerve involvement persisted. Surgery with tumour excision was performed a few weeks later. At twelve months postpartum the patient is still alive but with progressive symptoms of deterioration.

The choice of anaesthetic management for Caesarean section in these patients is controversial and none of the options is without risk. General anaesthesia has been described[1] using an increased dose of thiopentone, hyperventilation, and bilateral recurrent laryngeal nerve block. However, there was a high risk of regurgitation and pulmonary aspiration in the present patient and therefore we refrained from general anaesthesia. There are a few reports of lumbar epidural and caudal anaesthesia for vaginal delivery.[2-4] However in 10–20% of patients, caudal anaesthesia failed to provide adequate analgesia[5] As we had to proceed rapidly, spinal anaesthesia which has a faster onset of action than epidural anaesthesia was considered more appropriate. Furthermore, there is the additional risk of dural puncture with large-pore epidural needles and subsequent brain stem herniation. An atraumatic small-bore, pencil point needle even under slightly raised intracranial pressure presumably causes only minimal CSF leakage, if at all.

Peter G. Atanassoff MD
Eli Alon MD
Branko M. Weiss MD
Department of Anaesthesiology
Urs Lauper MD
Department of Obstetrics
University Hospital of Zurich
100 Raemi-Str.
8091 Zurich, Switzerland

REFERENCES

1 *Cook EH.* Caesarean section in a patient with brain tumour: a clinical report. Mil Med 1989: 154: 330–1.
2 *Finfer SR.* Management of labour and delivery in patients with intracranial neoplasms. Br J Anaesth 1991: 67: 784–7.
3 *Goroszenuik T, Howard RS, Wright JT.* The management of labour using continuous lumbar epidural analgesia in a patient with a malignant cerebral tumour. Anaesthesia 1986: 41: 1128–9.
4 *Marx GF, Scheinberg L, Romney SL.* Anesthetic management of the parturient with intracranial tumor. Obstet Gyn 1964: 24: 122–6.
5 *Anderson S.* Management of epilepsy (Letter). Lancet 1990: 336: 1125–6.

Clonidine premedication for induced hypotension with total intravenous anaesthesia for middle ear microsurgery

To the Editor:

Clonidine premedication has been used for isoflurane-induced hypotension during middle ear microsurgery (MEMS).[1,2] We have recently used clonidine premedication with total intravenous anaesthesia (TIVA) to provide a relatively bloodless field and to avoid N_2O for MEMS.

Following IRB approval, 30 ASA I and II adult patients underwent MEMS using TIVA with propofol and fentanyl. Group I ($n = 15$) received only meperidine 1 $mg \cdot kg^{-1}$ and promethazine 0.25 $mg \cdot kg^{-1}$ as premedication *im* one hour before surgery. Group II ($n = 15$) received clonidine 4 $\mu g \cdot kg^{-1}$ *po* two hours before operation in addition to meperidine and promethazine. All patients received a bolus of 2 $mg \cdot kg^{-1}$ propofol and 1 $\mu g \cdot kg^{-1}$ fentanyl for induction of anaesthesia followed by atracurium 0.6 $mg \cdot kg^{-1}$ to facilitate tracheal intubation. Maintenance of anaesthesia was provided with a continuous infusion of propofol 10 $mg \cdot kg^{-1} \cdot hr^{-1}$ for the first 15 min, followed by propofol 6 $mg \cdot kg^{-1} \cdot hr^{-1}$ and fentanyl 1.5 $mg \cdot kg^{-1} \cdot hr^{-1}$ by syringe pump until 10–15 mins before the end of surgery when the infusion rate was reduced to one third. Relaxation was maintained with atracurium monitored by Datex relaxograph. Positive pressure ventilation was employed using O_2 in air (FiO_2 0.4). The infusion was stopped at the conclusion of surgery. Labetalol 0.1 $mg \cdot kg^{-1}$ was given whenever mean arterial pressure (MAP) exceeded 70 mmHg. Times to open eyes on command and to talk coherently were noted.

The mean intraoperative heart rate was lower in Group II than in Group I ($66.3 \cdot min^{-1}$ vs $71.6 \cdot min^{-1}$) $P < 0.05$. The average MAP tended to be lower ($P >$ NS) in Group II patients than in Group I (70.3 mmHg vs 75.3). The mean dose of labetalol needed to keep the MAP between 60–70 mmHg in Group I was 25.1 mg compared with only 4.2 mg in Group II ($P < 0.05$). The mean time to open eyes and talk coherently in Group I was 6.8 and 13.3 min compared with 11 and 20.5 min in Group II.

Therefore, we believe that addition of clonidine premedication with TIVA (propofol/fentanyl combination) for MEMS can provide stable hypotensive anaesthesia

with minimal need for labetalol but it results in a longer recovery from anaesthesia.

M. Maroof MD
R.M. Khan MD
T.H. Bhatti FFARCS
King Fahad National Guard Hospital
Riyadh Saudi Arabia

REFERENCES

1 *Woodcock TE, Millard RK, Dixon J, Prys-Roberts C.* Clonidine premedication for isoflurane induced hypotension, sympathoadrenal responses and a computer controlled assessment of the vapour requirement. Br J Anaesth 1988; 60: 388–94.
2 *Toivonen J, Kaukinen S.* Clonidine premedication: a useful adjunct in producing deliberate hypotension. Acta Anaesthesiol Scand 1990; 34: 653–7.

Succinylcholine warning

To the Editor:
In October, Burroughs-Wellcome issued a letter to all anaesthetists in Canada advising them against the routine use of succinylcholine in children and adolescents. This letter was based on a few cases presented by Drs. H. Rosenberg and G. Gronert to the FDA, USA. The advisory that succinylcholine, a muscle relaxant that has been in use in paediatric anaesthesia for more than 40 years, should not be used in children and adolescents is reprehensible. At The Hospital for Sick Children, we have established neuromuscular blockade with succinylcholine in hundreds of thousands of infants, children and adolescents without a single death attributable to succinylcholine. Furthermore, the hyperkalaemic response reported is treatable with *iv* calcium provided the diagnosis is considered. It is inappropriate for the pharmaceutical industry to bypass the extensive experience of Canadian clinicians, the Canadian Anaesthetists' Society and the CNS division of the Bureau of Human Prescription Drugs, Canada and issue such a letter!

It is the opinion of the undersigned that succinylcholine will continue to play an essential role in the airway management of infants, children and adolescents under our care.

Jerrold Lerman MD FRCPC
S.E. Berdock MD FRCPC
B. Bissonnette MD FRCPC
B.M. Braude MB BCh FRCPC
P. Cox MB BCh FRCPC
M.W. Crawford MD FRCPC
R.E. Creighton MD FRCPC
B.G. Dodgson MD FRCPC
D.W. Fear MD FRCPC
L.R. Gerus MD FRCPC
E.J. Hartley MD FRCPC
H.M. Holtby MD FRCPC
A.E. Johnston MD FRCPC
S.M. Kemp MD FRCPC
M. Levine MB BCh FRCPC
B.A. Macpherson MD FRCPC
B.G. McIntyre MD FRCPC
M.E. McLeod MD FRCPC
J.E.S. Relton MB FRCPC
G. Robison MD FRCPC
W.L. Roy MD FRCPC
I.A. Sloan MD FRCPC

Department of Anaesthesia
The Hospital for Sick Children
555 University Avenue
Toronto, Ontario M5G 1X8

Erratum

Hudson RJ, Friesen RM. Health care "reform" and the costs of anaesthesia/La réforme des soins de santé et les coûts of l'anesthésie. Can J Anaesth 1993; 40: 1120–5.

Please note that in the following reference on p. 1125:

2 *Morley-Forster P, Newton PT, Cook M-J.* Ketorolac and indomethacin are equally efficacious for the relief of minor postoperative pain. Can J Anaesth 1994; 41: 1126–30.

the last line should read:

Can J Anaesth 1993; 40: 1126–30.