LETTERS TO THE EDITOR

Bain Circuit (A Reply)

Sir,

I note with satisfaction that my letter to the Editor in May 1978 has been read by some of my colleagues. Dr. H.L. Zauder has replied (Jan. 1979) in a critical tone stating that he is appalled by my letter. According to my English dictionary, Dr. Zauder is "filled with horror and consternation" by my letter. I should like to apologize sincerely for causing this distressing state of affairs in Dr. Zauder's psyche. It was not my intention to create such for any reader of this journal but simply to report two problem cases which occurred in a community hospital and to draw attention to the mechanics leading to them. Enquiry amongst my associates here and in Toronto led me to believe that this problem had not been outlined previously. Perhaps my lack of journalistic skills (and reviewing my original letter I see I have many faults) led to some of the confusion manifest in the professor's letter.

It was not intended to criticize the Bain circuit but to point out that the circuit depends on precise control of fresh gas flow and that the two cases illustrated a source of leak in the system proximal to the usual hookup of the Bain circuit which led to excessive re-breathing and the consequent physiological changes. Dr. Zauder is quite right in stating that the events which occurred could well have happened with a circle absorber system and I am sure a ventilated Ayre's T-piece situation would have led to identical problems.

I hasten to point out that the circuit was *rechecked* in mid-case when the incidents occurred, implying that the circuit had been checked before the commencement of the case in keeping with good anaesthetic practice. In each case the Pethick test suggested that the Bain circuit was operating properly. As I attempted to point out (unsuccessfully I see), the leak from the Ohio type of enflurance vaporizer was small and the decrease in fresh gas flow was small. This was the point of my letter, and, if any criticism was intended, the vaporizer filling ports were the object. Further, oesophageal stethoscopes were in use in each case and since the problem was with fresh gas flow and not tidal volume this did not trigger earlier diagnosis either. So the two suggested preventative measures certainly did not "preclude the occurrence of these complications".

Dr. Zauder's point regarding visibility of the patient is well taken and reminds me of comments in my note in May.

Anaesthetists and their tools are inseparable. Publication of difficulties old and new associated with various pieces of our equipment have been useful in fore-arming us poor mechanics who are still learning. I may be a poor mechanic as Dr. Zauder implies, and I congratulate him for having determined this from only one letter, but I am most certainly not blaming my tools.

Roger A. Mullin, M.D.

Cardiac Life Support Courses

Sir,

We have just received the latest Newsletter of the Canadian Anaesthetists' Society, informing its members of the Annual meeting in Edmonton in 1979.

We are distressed at the Society's endorsement of the fact that SPECIALIST Anaesthetists must take the BASIC and advanced Cardiac Life Support courses in order to be considered competent to do cardio-pulmonary resuscitation (CPR) and to teach it.

We become depressed at the very thought of being "forced" to attend lectures and demonstrations on how to secure and maintain an (upper) airway, how to support circulation, how to start an intravenous, how to defibrillate.

While we believe that widesperad education of the public is essential to prevent many unnecessary deaths outside the hospital, we do not accept that *Qualified Anaesthetists* must take the same courses to learn and to teach the techniques of CPR.

We submit that as a method of wasting time few examples could better the many hours spent in listenting to lectures on the necessity for learning CPR and in becoming "Ventilation-and Compression-Perfect" on Resusci-Anne: The chest wall and lung compliances of Resusci-Annes (and patients) are so variable that the insistence by

"Qualified Instructors" on a perfect tape is ludicrous.

What should be emphasized is that: 1. Adequate VENTILATION means adequate movement of the chest and diaphragm and, 2. Adequate cardiac compressions mean generation of a major pulse at a rate of about 60–90 per minute.

We wonder who "taught" the original teachers these "New" Basic and Advanced CPR techniques. We feel we are at least as competent and knowledgeable about CPR as these teachers. This being so, we would like the Canadian Anaesthetists' Society to state that it is the Society's view that Specialist Anaesthetists by virtue of their training, experience, and everyday practice, are qualified to do and to teach Basic and Advance CPR.

We submit that if the Society does not agree with this statement, the recently qualified Specialists in Anaesthesia in Canada have been sadly short-changed in their Residency training.

We would suggest the following: Let the public and allied health personnel be taught CPR and let us encourage doctors to update themselves in the theory and techniques. If there are some who feel the need to be recognized as a "somebody", by all means let us give them Certificates.

To do less would be to ignore our responsibilities. To do more would be to admit a prevailing lack of knowledge that reflects poorly on doctors in general and Anaesthetists in particular.

Let us do all this before it is too late: already it is being suggested that unless a doctor is competent in CPR techniques, he will not be given privileges in a hospital; and, of course, he is not competent unless he has been certified by a "Qualified Instructor".

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CAUDAL ANAESTHESIA IN PAEDIATRIC PATIENTS

SIR,

I would like to respond to the remarks in the letter of Doctor McGown published in the Canadian Anaesthetists' Society Journal *26*: 66 regarding our article "Caudal Anaesthesia in Paediatric Patients".

The formula of Schulte-Steinberg, *et al.*[1] gives the volume of one per cent lidocaine required to block one neural segment. Our conclusion that 1 ml per year of age will give a block level within the lumbar region is a mathematical conclusion based on that formula. When we use these calculated volumes in clinical practice they produce a nerve block satisfactory to the purpose for which we use it.

Schulte-Steinberg *et al.*[1] have found a parallel relation between lidocaine one per cent and other local anaesthetics including bupivacaine 0.2 per cent. That is why we used the agent in 54 patients out of 120.

Regarding the age of definition of the paediatric patients, I would like to refer to table one in our article "Caudal Anaesthesia In Paediatric Patients".[2] As shown in that table, 95 per cent of our patients were under ten years of age. Even with Dr. McGown's definition of the paediatric patient, we do not understand the basis for his remark that we have not confined ourselves to paediatric patients.

We agree with Dr. McGown that the nerve block level required for surgery may not be the same as that required for analgesia.

M.G. Soliman, M.D., F.R.C.P.(C)

REFERENCES

1. SCHULTE-STEINBERG, O. & RAHLFS, V.W. Spread of extradural analgesia following caudal injection in children: a statistical study. Brit. J. Anaesth. *49*: 1027 (1977).
2. SOLIMAN, M.G., ANSARA, S., & LABERGE, R. Caudal anaesthesia in paediatric patients. Canad. Anaesth. Society J. *25*: 266 (1978).