CORRESPONDENCE

- 6. Maltby JR, Malla DS, Dangol H: Open drop ether for anaesthesia for Caesarean section: A review of 420 cases in Nepal. Can Anaesth Soc J 1986; 33:651-6
- 7. Department of Health and Social Security: Report on confidential inquiries into maternal deaths in England and Wales 1976–1978. London, Her Majesty's Stationery Office, 1982, pp 77–88
 - 8. Ministry of Health: Report on confidential inquiries into mater-

nal deaths in England and Wales 1961 – 1963. London, Her Majesty's Stationery Office, 1966, pp 44 – 7

9. Department of Health and Social Security: Report on confidential inquiries into maternal deaths in England and Wales 1964–1966. London, Her Majesty's Stationery Office, 1969, pp 68–75

(Accepted for publication September 10, 1997.)

Anesthesiology 1998; 88:278 © 1998 American Society of Anesthesiologists, Inc Lippincott-Raven Publishers

In Reply: — An oft-quoted restatement of Russell's paradox states that "all generalizations are untrue - even this one!" The generalizations made by Drs. Gambling and Reisner and Dr. Sitzman regarding the "unreasonableness" of inhalation induction of anesthesia for emergency cesarean section are equally invalid. Although we recognize that under almost all circumstances, rapid-sequence intravenous induction of anesthesia with endotracheal intubation is preferred for STAT cesarean section, real-life circumstances may countervene. As eloquently stated by Dr. Maltby, not every parturient (or even many parturients) anesthetized via mask before the clinical introduction of rapidly acting intravenous anesthetics and relaxants succumbed to acid aspiration. Even now, most parturients do not regurgitate when cricoid pressure is released after rapid sequence intubation. The use of cricoid pressure in an unparalyzed patient, as suggested by Drs. Gambling and Reisner, is potentially detrimental: It may cause coughing or "bucking" during induction of anesthesia and may result in an esophageal tear if active vomiting occurs. Further, rapid sequence induction is not a panacea: There may be failed intubations (inadvertent gastric inflation with positive pressure ventilation markedly increases the risk of regurgitation) and balky intravenous lines (which occlude or infiltrate before the muscle relaxant has reached the circulation—especially when rocuronium follows thiopental too closely).

These correspondents also expressed concern regarding the delay in establishment of cardiovascular monitoring in our case. It is important to note that the pulse oximeter serves as an indicator of circulatory integrity (an electronic "finger on the pulse"), while the patient's spontaneous ventilation serves as an indicator of cerebral perfusion. Anesthesia is frequently induced *via* mask in pediatric patients before any monitoring (except, perhaps, a pulse oximeter) or intravenous access is established.

Drs. Shankar and Carnann emphasize the importance of having

intravenous access to allow for volume replacement should the need arise. The venodilation accompanying induction of general anesthesia typically makes it much easier to insert an intravenous catheter; in fact, this occurred in the present case. With regard to the medicolegal issues, the notion of a "standard of care" is relative: Appropriate management strategies for "routine" circumstances may not represent optimum management in an atypical case such as ours. In response to the dictums suggested by these authors, I must add one of my own: "It is *best* to give a healthy baby to a living mother."

Awake oral or nasal intubation is a viable option for cesarean section, provided time permits adequate preparation of the parturient. Topical anesthesia and vasoconstriction (if a nasal approach is planned) are critical to obtaining a successful outcome in an unsedated patient. Administration of spinal anesthesia in the absence of intravascular access, although certainly well described in the 1920s and 1930s, results in an irreversible decrease in sympathetic tone, without offering the advantage of venodilation in the upper extremities and improved chances of obtaining venous access.

Anesthesiologists sometimes face difficult choices with unknown and unknowable risk-to-benefit ratios. Armed with clinical experience, scientific knowledge, technical skill, and bit of luck, we are able to provide a desirable outcome almost all the time. In cases like ours, informed flexibility may be more important than blind adherence to "dictums" and "standards."

Jeffrey B. Gross, M.D.

Professor of Anesthesiology and Pharmacology University of Connecticut School of Medicine Farmington, Connecticut 06030-2015

Doctor Gross is a consultant for Abbott Laboratories.

(Accepted for publication September 10, 1997.)