set a precedent. Two dictums are relevant here. First, do not allow a fetal disaster deteriorate into a maternal disaster. Second, it is always preferable to give a dead baby to a living mother than to give a dead mother to a living husband.

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To the Editor.—Although I read with interest the case report by Schaut et al., their report raises the concern that inhalation induction of anesthesia with sevoflurane for emergency cesarean section should be considered a “suitable alternative” when intravenous access is not available. Whereas the authors endeavor to justify their decision, they minimize the significance of the maternal risk involved. The authors correctly state that the parturient undergoing emergency cesarean section is considered to have a full stomach and acknowledge the risk for aspiration. However, they do not clarify that the parturient has decreased lower esophageal sphincter tone and increased intragastric pressure and that the stimulus of uterine traction during cesarean section delivery places the parturient at extremely high risk of regurgitation. Additionally, laryngeal reflexes are absent during the stage of general anesthesia described in this case, and spontaneous ventilation with an unprotected airway makes this patient particularly susceptible to aspiration.

The authors also contend that infiltration with local anesthetics may take several minutes to accomplish and that the technique is no longer taught in most obstetric residencies. However, this technique is described in major obstetrics textbooks. Additionally, an informal survey of staff obstetricians practicing at our institution revealed that all are familiar with local anesthetic infiltration for cesarean section, and most state that they would use this technique in an obstetrical emergency. Although the authors described a case with good maternal and fetal outcome, the risk involved and the potential for an unfavorable outcome advocate against suggesting inhalation induction with sevoflurane as a “suitable alternative” for emergency cesarean section.

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it can be started with local anesthetic infiltration, allowing extra
time to gain intravenous access and apply the necessary monitors.
If mask anesthesia is used in the obstetric population, it is commonly
taught to maintain cricoid pressure until the airway is secured to
reduce the risk of regurgitation of gastric contents. Finally, when
intravenous access was finally secured in this case, the use of succi-
nylcholine would have assured the most rapid onset of intubating
conditions.

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To the Editor — Schaut et al. should be congratulated on their use
of inhalation induction with sevoflurane for immediate delivery of a
parturient with no accessible veins (Anesthesiology 1997; 86:1392–
4). Their quick thinking and quick action resulted in a live, apparently
healthy, infant being delivered within 5 min of the patient’s arrival
in the operating room. Rapid sequence intravenous induction with
cricoid pressure followed by endotracheal intubation is the usual
standard of care, but in this case, the delay in pursuing this “standard”
might have resulted in a brain-damaged infant for which the anesthesi-
ologist could have been blamed.

The authors correctly state that there is a serious risk of maternal
morbidity and mortality if aspiration occurs (italics added). The per-
ception among some anesthesiologists is that one would be foolish
to use a face mask for any obstetric anesthetic and very fortunate if
pulmonary aspiration did not occur. But how frequently did aspiration
occur before the introduction of rapid sequence induction, crip-
coid pressure, tracheal intubation, and H₂ receptor antagonists?

Ether and chloroform, and later cyclopropane, were commonly ad-
ministered without tracheal intubation for more than 100 yr after
Simpson introduced pain relief in childbirth in 1847.¹ Opponents ini-
tially criticized the use of anesthesia on medical and moral and religious
grounds.² One medical opponent went so far as to state that, “In the
lying-in chamber … pain is the mother’s safety, its absence her
destruction.”³ In response, Simpson collected 800 cases of ether or
chloroform administration in childbirth without a death from his own
practice and those of colleagues in the British Isles and Europe.⁴ His
report may have been biased in some aspects, but it seems unlikely
that an anesthesia-related death could have escaped publicity.

Almost a century later, in 1946, Mendelson reported 66 cases of
pulmonary aspiration of stomach contents in 44,016 pregnancies.⁵ Five
deaths occurred from aspiration of solid material, but there were
no deaths among the 40 parturients who were known to have ingested
liquid and who developed the chest radiograph findings of Mendel-
son’s syndrome. Between 1942 and 1952 in one large English city,
there were no anesthetic deaths in 3,048 domiciliary open-drop ob-
stetric anesthetics.⁶ At the Women’s Hospital in Kathmandu, Nepal in
1982–1983, there was one material death, a result of uncontrollable
hemorrhage, among 420 open-drop ether anesthetics given by junior
obstetric residents for cesarean section.⁷

The safety record of the mask or open-drop method may be a result
of the fact that vomiting is most likely to occur in light anesthesia
during induction or emergence when warming signs of swallowing,
breath holding, and salivation allow time for the patient to be turned
onto her side. Vomiting does not occur during maintenance of deep
inhaled anesthetic anesthesia (Guedel stage III, plane I or II)⁸ Pulmonary
aspiration as an important cause of anesthesia-related maternal death
was not emphasized until the 1940s and 1950s by Mendelson⁹ and
others,¹⁰ but the policy of “mandatory” tracheal intubation, especially
when it fails, may actually do harm.¹¹

When general anesthesia is essential, there are advantages to
mother and fetus in the use of tracheal intubation, neuromuscular
blockade, and light anesthesia with controlled ventilation. On the
other hand, aspiration is sufficiently rare during inhalational anesthe-
sia via face mask that this may be a rational and defensible choice
in difficult circumstances. We may do our patients a disservice if we
are afraid to use an “obsolete technique” because of exaggeration
about its dangers.

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