CORRESPONDENCE

Anesthesiology
60:384, 1984

Should Precurarization be Used in Obstetrics?

To the Editor.—Many current books on obstetric anesthesia recommend the use of a small dose of nondepolarizing muscle relaxant prior to administration of succinylcholine for anesthetic induction in obstetric patients. This recommendation has been supported recently by Marx and Bassell,1 who feel that in addition to reducing the risk of pulmonary aspiration of gastric contents, this practice is beneficial because fasciculations utilize oxygen. Since the pregnant patient already has increased oxygen consumption and reduced oxygen storage capacity, they feel that prevention of succinylcholine-induced fasciculations would provide a greater margin of safety for the mother and infant.

Reduction of aspiration risk by the use of precurarization has been attributed to preventing the rise in intragastric pressure (IGP) caused by succinylcholine-induced fasciculations.2 However, the chance of regurgitation is determined not by IGP alone, but by the gastro-esophageal pressure gradient, i.e., the difference between the lower esophageal high pressure zone (HPZ) and IGP. Since the pressure gradient actually increases when succinylcholine-induced fasciculations occur (HPZ rises more than IGP),3 it appears that precurarization would, if anything, increase the risk of regurgitation. Allowing the fasciculations to occur may be of even greater benefit in the pregnant patient who is at increased risk of regurgitation because the esophago-fundal angle is less acute,4 IGP is already elevated,5 and she may have developed a hiatal hernia that is associated with a reduced pressure gradient.6

Concerning maternal and fetal oxygenation, precurarization may be as great a risk as the increase in oxygen consumption resulting from fasciculations. Precurarization delays the onset, reduces the intensity, and shortens the duration of a succinylcholine-induced block.6,7 If this occurs, endotracheal intubation may be delayed and the risk of maternal and fetal hypoxia could be even greater than if oxygen consumption is increased by fasciculations. Although an increased dose of succinylcholine may overcome the adverse effects of a prior small dose of nondepolarizing relaxant,8 I do not feel that precurarization is advisable for the above stated reasons.

Finally, utilization of cricoid pressure at the time of induction and endotracheal intubation still remains the primary preventive measure of pulmonary aspiration of gastric contents. However, if our concern is to reduce the risk of regurgitation by increasing the gastro-esophageal pressure gradient, possibly the use of metoclopramide9 (but not precurarization) is the answer.

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(Accepted for publication September 12, 1983.)

Acute Pulmonary Embolism during Therapeutic Arterial Embolization with Silicone Fluids

To the Editor.—Capan et al.1 described a case of pulmonary embolism of silicone fluid in the treatment of an arteriovenous malformation of the right thigh. They proposed that isobutyl-2-cyanoacrylate (IBCA) should be one of the most desirable agents for embolizing high-flow fistulous communications because it has high tissue ad-