Editorial Views

Halothane and Uterine Hemorrhage

HALOTHANE is the most popular general anesthetic given in North America and Europe. The ease of administration and the paucity of after-effects have led us to rely heavily, sometimes solely, upon it as the best available inhalation anesthetic. Consequently, reports of adverse reactions cause anxiety, and often considerable controversy. The earliest proponents of the use of halothane, while extolling its virtues for general surgery, reported that the agent could produce uterine atony and bleeding when used in obstetrics. Since 1963 the package insert for Ayerst Fluothane has stated that: "Halothane is not recommended for obstetrical anesthesia except when uterine relaxation is needed." This injunction has been unacceptable to a large segment of anesthetists, who believe that the judicious use of halothane eliminates the hazard of excessive uterine hemorrhage. This group believes that low concentrations of the anesthetic administered for short periods do not produce significant increases in postpartum bleeding. Unfortunately, there has been inadequate evidence to support this notion. While most reports indicate that patients develop uterine atony when anesthetized with 2 to 3 per cent halothane, there is only a supposition that the lower "analgesic" concentrations are safer. The report of Cullen, Margolis and Eger in this issue of the Journal supplies data contradicting this supposition. Using precise techniques for measuring blood loss and anesthetic concentrations, their carefully designed and controlled study conclusively demonstrates that concentrations as low as 0.5 per cent halothane are associated with gross increases in blood loss during therapeutic abortion. Since each patient received an infusion of oxytocin during the procedure, it is evident that anesthetists cannot rely on this or similar compounds to antagonize the uterine relaxant properties of halothane. It is also apparent that although not every patient receiving halothane may bleed excessively, it is impossible to predict the susceptibility of any given patient to this complication. Therefore, it seems clear that for therapeutic or incomplete abortions other anesthetics and techniques, such as nitrous oxide plus narcotics or barbiturates, or possibly paracervical block, should be used.

Whether the gravid uterus in late pregnancy behaves differently from that in the earlier trimesters deserves special study. The inference made by the authors that the results obtained in their study may also apply to anesthetics given for cesarean section or vaginal delivery warrants careful consideration. Until this inference is dispelled with controlled studies, it appears prudent for the anesthesiologist to avoid halothane for obstetrical procedures unless uterine relaxation is required. The burden of proof now lies with those who suggest that halothane "analgesia" is as safe as the other techniques.

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