



Fig. 3. Graph depicting the mean and range of methoxyflurane concentrations with 3 vaporizers at each of nine dial settings.

dial setting it was found that the greater the flow rate, the lower the final concentration. However, at the minimal dial setting (1/9),

irrespective of flow rate, virtually no methoxyflurane was delivered.

We interpret the high initial concentration of methoxyflurane delivered by the vaporizer as that which a patient might obtain with her first few breaths. The final concentration is that which she would receive after one to two minutes of continuous use. It is most noteworthy that methoxyflurane concentrations above the minimum alveolar anesthetic concentration for man of 0.16 per cent² were obtained at all dial settings except the lowest (fig. 3). Indeed, we have produced surgical anesthesia on occasion with this vaporizer. In the obstetrical patient with a full stomach, the hazards of aspiration of vomitus under these conditions must be appreciated.

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Intragastric Cyclopropane—A Potential Explosion Hazard

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During the administration of cyclopropane via a face mask, the anesthetic agent may be introduced into the stomach, particularly when assisted or controlled ventilation is used. This may also occur during spontaneous ventilation, when respiratory efforts are made against a closed glottis and a Levin tube is present.¹ DeNava and McDermott have shown that 20

per cent cyclopropane in oxygen remains explosive as long as 45 minutes in the stomach of anesthetized dogs.² Explosion of eructed intragastric gases has been reported.³⁻⁷ However, no data related to the rate of decrease in the concentration of intragastric cyclopropane in man are available. Such data are presented.

Six experiments were performed in two non-premedicated, healthy subjects. In each experiment 500 ml. of 44-50 per cent cyclopropane in oxygen was displaced into the stomach by gravity with water through a Levin tube in 6-10 minutes. No belching, nausea or vomiting was experienced. Five-milliliter gas samples were taken through a rubber connector attached to the tube, following which the

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