

## Forane Increases Bleeding in Therapeutic Suction Abortion

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Because of its low solubility, ease of administration, and relatively low incidence of side effects, Forane, a new inhalation anesthetic, might well be the ideal anesthetic for outpatient procedures. However, any agent that promotes uterine bleeding is unsuitable as an anesthetic for therapeutic abortions. We undertook the following study to determine the magnitude of blood loss in patients anesthetized with Forane and undergoing suction therapeutic abortion.

#### METHODS

The methodology used in this study was similar to that used by Cullen *et al.*<sup>1</sup> Thirteen women who ranged in age from 19 to 38 years and were eight to 13 weeks pregnant were selected for study. After informed consent had been obtained, these unpremedicated women were anesthetized by inhalation of either Forane-oxygen (four patients) or Forane-nitrous oxide-oxygen (nine patients). The trachea of all patients were intubated without the use of muscle relaxants. Depth of anesthesia was monitored by infrared analysis of end-tidal concentrations and maintained at 1.4 per cent Forane in the four patients who received Forane-oxygen. (MAC is 1.27 for this age group.) Of the nine patients in whom 70 per cent nitrous oxide was used, the Forane concentration was maintained at 1.0 per cent in seven and at 0.5 per cent in two (Forane MAC with 70 per cent nitrous oxide is 0.5 per cent). No patient moved in re-

sponse to operative stimulation. The suction technique<sup>2</sup> was used in all 13 patients, and the blood collected in a trap bottle and corrected for anatomic fluid<sup>3</sup> was assumed to equal the blood loss each patient experienced. The data was analyzed by unpaired analysis. We accepted as statistically significant  $P < 0.05$ .

#### RESULTS AND DISCUSSION

The average blood loss was 208 ± 43 ml (SE) (Table 1). In ten of the 13 women, blood losses exceeded 100 ml. We found no statistical correlation between the amount of

TABLE 1. Estimated Blood Losses in Therapeutic Abortions Using Forane Anesthetics

	Age (Years)	Estimated Blood Loss (ml)	Uterine Abortion	Estimated Blood Loss (ml)
<b>Forane alone</b>				
Patient 1	23	5	—	50
Patient 2	21	8	Yes	110
Patient 3	22	9	—	85
Patient 4	26	9	—	85
Group average				83 ± 13 (SE)
<b>Forane with 70 per cent nitrous oxide</b>				
Patient 5	24	8	Yes	160
Patient 6	30	8.5	—	120
Patient 7	24	9	Yes	280
Patient 8	36	9	Yes	375
Patient 9	28	10	—	420
Patient 10	28	10.5	Yes	285
Patient 11	28	10.5	Yes	185
Patient 12	19	12	Yes	150
Patient 13	23	12	Yes	170
Group average				202 ± 53 (SE)
Overall average				208 ± 43 (SE)

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