on arriving in the operating room showed an unchanged blood pressure and a slightly higher pulse rate than on the ward. During the first ten minutes of anesthesia the systolic pressure rises 15 to 20 mm. of Hg. and then is maintained at a fairly constant level 10 to 12 points above the ward reading. The diastolic remains approximately 5 points higher than the ward reading. The pulse rate changes very little, averaging 100 beats per minute throughout the operation.

In the moderately toxic group the systolic pressure shows slight fall, and the pulse rate a rise preceding induction of anesthesia. During the first ten minutes the systolic pressure shows a sharper rise of 20 points and the diastolic is elevated about 10 points and is maintained at that level. The average pulse rate varies only a few points from 110.

In the severe toxic cases, the pressure and pulse rate both rise prior to anesthesia. After induction there is a considerable rise in systolic pressure, reaching a peak in approximately fifteen minutes and then gradually dropping. The diastolic pressure rises and falls in unison with the systolic, but to a lesser degree. The sharp rise in systolic pressure is quite characteristic, and is roughly proportional to the degree of toxicity, but in the absence of true hypertension rarely goes above 200. The pulse rate in this group is high, averaging 130 in contrast with 110 in the moderately toxic, and 100 in the nontoxic group.

Under local anesthesia 25 cases falling into group two were done. Here the average variation in systolic and diastolic pressure is slight, being within 10 points of the ward reading. The pulse rate is maintained at a higher level, between 120 to 130 throughout the operation.

J. E. R.

SELYE, H.: *Anesthetic Effect of Steroid Hormones.* Proc. Soc. Exper. Biol. & Med. **46**: 116–121 (Jan.) 1941.

Desoxycorticosterone acetate (DCA), progesterone, testosterone, estradiol, and cholesterol were tested. Intraperitoneal injections of the substances were made into white rats, the drugs being dissolved in peanut oil. Deep surgical anesthesia resulted from the intraperitoneal injection of DCA and progesterone into 12 female rats, while only 1 male rat was anesthetized with DCA and 2 with progesterone. Six female rats were anesthetized by testosterone, but this effect was not observed until the end of one hour. Estradiol and cholesterol were without effect.

The animals showed no ill effects on recovery. Overdose led to death from respiratory paralysis. Partially hepatectomized rats were more sensitive, indicating that the liver plays a role in destruction of these preparations.

No explanation is given as to the possible mechanism underlying the production of anesthesia in this manner. The sharp difference in sex susceptibility is interesting. Blood pressure was not lowered.

R. D. D.

TOCONTINS, L. M., AND O'NEILL, J. F.: *Infusion of Blood and Other Fluids into the Circulation Via the Bone Marrow.* Proc. Soc. Exper. Biol. & Med. **45**: 782–783 (Dec.) 1940.

Substances injected into the bone marrow enter the general circulation apparently unchanged and almost as rapidly as when injected intravenously. In cases of widespread mutilations, burns, edema, poorly developed or obliterated veins and states of shock, it is sometimes impossible to use the intravenous or subcutaneous routes of administration.

For these reasons, the authors have attempted a clinical application of the