to the muscle. The downward slopes of the tension curves were not materially affected by cutting the ipsilateral sciatic nerve or by hemorrhage. It is concluded that the anesthetized dog does not possess skeletal muscle tonus and, therefore, loss of tonus cannot be an initiating or contributing factor in shock."

J. C. M. C.

EVANS, WILLIAM E., JR.; OSTER, R. H., AND KRANTZ, J. C., JR.: *A Comparative Study of Propethylene and Cyclopropane on Cardiac Automaticity.* J. Pharmacol. & Exper. Therap. **83**: 40–44 (Jan.) 1945.

"Propethylene is a volatile anesthetic agent which was shown to possess promising anesthetic properties in the mouse, rat, dog and Macacus rhesus monkey by Krantz et al. . . . Evans et al. (3) showed that prolonged and repeated anesthesias with propethylene were neither hepatotoxic nor nephrotoxic in the mouse, rat and dog. Evans et al. (4) developed a method to estimate propethylene quantitatively in the circulating blood and found anesthetic concentrations in the dog and monkey to be of the order of magnitude of 30 to 40 mg. per cent. Blood gases and cardiac rhythm were found to be essentially unaltered by anesthesia with propethylene in the dog even at respiratory arrest by Evans and Krantz (5).

"Meek, Hathaway and Orth (6) showed that arrhythmias frequently occurred in the dog's heart under cyclopropane anesthesia when the automatic tissue of the heart was sensitized by intravenous injections of epinephrine.

"Table 1 shows that the heart is not sensitized to epinephrine under propethylene anesthesia. In this series, this holds for the dog and the monkey. Propethylene appears to have a greater capacity than cyclopropane to increase the heart rate. In 20 to 30 per cent of the anesthesias in the dog in this series, and in a former series (5), the T-wave in Lead II is inverted. It is of special interest that in our studies with cyprethylene ether (12) an isomer of propethylene . . . in a series of 15 monkey anesthesias, we observed 2 branch bundle blocks and in others arrhythmias. This seems to indicate that the 3 membered cyclopropane ring in the molecule is responsible for eliciting cardiac arrhythmias."

A. W. B.

CRAIG, F. N.; VISSCHER, F. E., AND HOUCK, C. R.: *Renal Function in Dogs under Ether or Cyclopropane Anesthesia.* Am. J. Physiol. **143**: 108–118 (Jan. 1) 1945.

"The present experiments were undertaken to observe renal function in dogs under ether or cyclopropane anesthesia in the absence of the complications introduced by surgical operation. . . . The present results for ether and cyclopropane in dogs agree with previous observations on ether and cyclopropane in man, and sodium pentobarbital anesthesia in dogs in that renal blood flow, glomerular filtration, and tubular activity as measured by clearance methods, are not changed significantly in light anesthesia. In dogs under deep anesthesia with ether or cyclopropane, depression of renal function occurs. . . . The reduction in renal blood flow and filtration rate in deep anesthesia is attributed to neurogenic constriction of the afferent arterioles of the kidney. This hypothesis would explain in part the phenomenon of renal hyperemia following denervation, recorded in many older acute experiments; it would help to account for the fact that under better controlled conditions such denervation hyperemia is not demonstrated." 21 references.

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