volume was determined with T1824 and the extracellular fluid, with sodium thiocyanate. Anesthesia under light pentobarbital had no apparent effect on the fluid distribution. Light anesthesia did prevent vomiting that occurs in most dogs following digitalis administration. The drug used was tincture of digitalis which contained 1 U.S.P. XII digitalis unit per cubic centimeter. The dosage was 0.3–0.6 cc. per Kg. diluted with saline and given intravenously.

Two groups of dogs were used; one anesthetized and the other unanesthetized. The results were essentially the same in both groups. After administration of digitalis, there was a gradual rise in the hematocrit and at the end of several hours most animals showed considerable hemoconcentration. At this time most animals showed a significant reduction in plasma volume and an increase in extracellular fluid as measured by the above method. These changes have been found to persist for three to four days following a single dose of digitalis. The maximum effect seems to occur in 4–8 hours. In many experiments, digitalis caused an augmentation of 50–60 cc. per Kg. This amounts to 500–800 cc. per dog increase in extracellular fluid. The greater proportion of this fluid must come from the cells.

J. M. B.


Ginn and Volker found that 50 ppm. of fluorine as sodium fluoride in the drinking water of animals caused a reduction in the hemoglobin. Valjavee injected 1.0 per cent solution of sodium fluoride intravenously so as to provide 10 to 30 mg. of fluorine per kilogram body weight; he found there was a slight reduction in the hemoglobin and the red blood count. Greenwood, Hewitt and Nelson found no change in the hemoglobin and blood coagulation resulting from sodium fluoride in milk given to young dogs. Roholm observed in human cases exposed to the fluorine mineral, cryolite, that there was a slight reduction in the red blood count but not in the hemoglobin.

The relation of fluorine exposure to blood hemoglobin and hematocrit values in rats was studied in several strains of the species, using several diets and for different experimental periods. There were no differences between control and test animals to indicate any effect of fluorine on the hemoglobin and hematocrit values for these rats' blood.

J. M. B.


Experience has taught that cardiac arrest can occur in any patient, with any anesthetic agent, and with any anesthetist. For obvious reasons, a general emergency surgeon is more often confronted with impending death under anesthesia than is the surgeon engaged in special branches.

Two fundamental conditions are segregated; blue asphyxia (primarily respiratory) and white asphyxia (primarily cardiac). The latter is far more serious. After twenty years' observation, the author has now abandoned expending time in performing artificial respiration and injecting adrenalin into the ventricle. He recommends immediate cardiac massage when the heart stops. The current plan of action includes intermittent compression of the ventricles through the diaphragm within one and one-half minutes after the stoppage occurs. It appears that the early anxieties and