

passes through the placenta. This conclusion was further substantiated by the fact that when the fetuses were injected with an amount calculated as a minimal lethal dose for the mother, the latter died after a few minutes in 75% of the cases.

We conclude: 1. The amount of sodium amytal necessary to anesthetize a pregnant rat does not in any way interfere with the viability of the fetus; the fetus is not anesthetized, at least not completely, and readily responds to gross stimulation. 2. Sodium amytal quickly passes from fetal circulation into the maternal circulation. 3. In calculating the amount of sodium amytal necessary to anesthetize a pregnant animal, the weight of the fetuses must be subtracted from the weight of the mother.

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A New Capillary Hematocrit.

PAUL D. ROSAHN. (Introduced by L. Pearce.)

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The apparatus to be described is an accurate and inexpensive hematocrit of extremely simple construction, employing heparin as an anticoagulant. Values are expressed directly in per cent by measuring the column of packed blood cells with a millimeter scale. That readings are made directly is an obvious advantage over a somewhat similar hematocrit described by Epstein,¹ with which the readings are calculated by dividing the length of the column of cells by the length of the original column of blood, and multiplying the quotient by 100.

The hematocrit here described is a pipette 12 cm. long, cut from selected glass tubing of uniform bore, having an outside diameter of 5 mm. and a bore of 0.5 to 0.8 mm. One end is beveled, and exactly 10 cm. from this end is engraved a circular mark. Before use the tube is lined with the anticoagulant by drawing an aqueous solution of $\frac{1}{2}$ to 1% heparin through the pipette which is then allowed to dry. The tube is then sealed by encircling it with a rubber band No. 84 which is 9 cm. long and 1.3 cm. wide. No subsequent leakage occurs if this sized rubber band is placed securely around the pipette.

A rubber mouth suction tube is attached to the unbeveled end of

¹ Epstein, A. A., *J. Lab. and Clin. Med.*, 1915, **1**, 610.

the hematocrit, and freshly flowing blood obtained by needle prick is drawn up to the circular mark. Blood adhering to the outside is wiped away, the suction tube is carefully removed, and the pipette encircled from end to end with the rubber band. The hematocrit is now placed in a centrifuge with beveled end down and rotated for 20 minutes at 3000 r.p.m. Centrifugalization at this rate for more than 20 minutes gives constant readings. The red cells are completely sedimented, and clearly and sharply defined from the supernatant plasma. The column of red cells is then measured against a millimeter scale. Since the original length of the column of blood was 100 mm., the length of the packed red cells in millimeters gives directly its percentage. Similarly, the amount of plasma is expressed in per cent. After use, the tube is cleaned in the usual manner with water, alcohol, and ether, and when relined with heparin, is again ready for use.

Rabbit's blood has been employed in the standardization of this hematocrit. A series of consecutive readings on 10 animals, using 10 pipettes for each animal, has given a standard deviation ranging from a minimum of 0.2% to a maximum of 0.8%, with an average for the 100 readings of 0.5%. In terms of coefficient of variation, the range was from a minimum of 0.6% to a maximum of 2.2%, with an average for the 100 readings of 1.2%.

The accuracy of this method, as indicated by the small technical error of 1.2%, together with the simplicity and inexpensiveness of the pipette, and the ease with which readings are made directly in per cent, are features which recommend the hematocrit for use in the clinic and laboratory.

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Absorption and Elution of Antibodies from Various Antisera.

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Frankel and Olitzki¹ showed that by specific absorption and elution it is possible to obtain antibodies free from protein by absorbing the antisera with kaoline, centrifugalizing and then eluting the kaoline absorbate with appropriate eluates. The eluates thus ob-

¹ Frankel, M., and Olitzki, L., *Nature*, 1930, **126**, 723.