

ping at the same rate. The concentration of blood fibrinogen is kept constant by working with a total volume of 10 drops.

These data are tentatively interpreted as indicating that thrombin is more sensitive to heparin inhibition than is tissue fibrinogen. The possibility that tissue fibrinogen suspension used might in some non-specific manner inactivate the heparin has to be considered.

5840

Volume of the Various Lobes of the Hypophysis During Pregnancy in the Rat.

SAM STEIN. (Introduced by A. T. Rasmussen.)

From the Department of Anatomy, University of Minnesota.

Contrary to the general tendency of the hypophysis, and particularly the anterior lobe, to enlarge during pregnancy in many animals, it appears from the data on 86 albino rats tabulated below, that the organ, as a whole, does not enlarge. If anything, the whole organ is slightly smaller in the normal pregnant animals. No significant difference was found in the relative volume of the various lobes as determined by the paper weight method on serial sections.

TABLE I.

Condition of Animals	No. of animals	Average age	Average body length	Average body weight	Average weight whole gland	Relative Volume of Lobes		
						Pars Anterior Average	Pars Posterior Average	Pars Intermedia Average
Group I—Normal non-pregnant controls	20	days 109	cm. 20.0	gm. 185	mgm. 10.67	% 87.42	% 7.73	% 4.86
Group II—Normal pregnant	28	135	19.9	175*	10.14	86.67	8.45	4.81
Group III—Pregnant vitamin E deficient	19	136	20.3	229	12.41	87.39	7.78	4.82
Group IV—Pregnant cured of vitamin E deficiency	19	153	20.3	241	12.79	87.77	7.60	4.61

* When impregnated.

All the animals used in these investigations were standard female albino rats reared under uniform conditions in the animal colony of the Department of Anatomy, University of Minnesota.

Group I—Normal non-pregnant controls were specifically chosen litter mates of the animals in Group II. They were all killed at approximately the same body weight of 185 gm.

Group II—Normal pregnant group—Litter mates of Group I were impregnated at about 175 gm. At least one animal was killed on each day of the gestation period, which in a rat is 22 days. Impregnation was done at this age on the assumption that they would have attained an average body weight similar to group I when killed if pregnancy had not been induced.

Group III—Consisted of a group of pregnant animals retained on a diet deficient in the anti-sterility vitamin E, after having passed through one gestation period with a diet deficient in vitamin E.

Group IV—Is a group of pregnant animals which was fed vitamin E after having passed through one gestation period with a diet deficient in vitamin E. This procedure did not apparently modify the relative volume of the lobes of the hypophysis as compared with group III.

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Avertin as an Anesthetic During Experimental Operations on Central Nervous System of Cat.

G. L. RASMUSSEN. (Introduced by A. T. Rasmussen.)

From the Department of Anatomy, University of Minnesota.

In operations on the central nervous system in cats, we have found that Avertin has many advantages over such an anesthetic as ether. We have used it on about 100 animals and find it to be of special value in several respects.

1. Being given per rectum, the dangers of contamination by the ether mask are eliminated when operating on the head region.
2. The animals may be made to remain perfectly quiet through the entire operation even if lasting up to 5 hours, without the use of any other drug, thus reducing the number of assistants—an anesthetist not being needed. It is therefore especially valuable where long periods of immobility are required, as in experiments where electrodes are to be kept for a considerable time in exactly the same place.
3. The increase of flow of mucus and saliva which is often produced by ether is eliminated by the use of Avertin. This feature is