

These results correspond in general to those obtained by platelet counts and indicate that increase in the platelet volume is not the primary factor in post-operative thrombosis.

## 7745 C

## Oestrin and Progesterin Content of the Corpus Luteum of the Sow.

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The oestrin and progesterin content of the corpus luteum of the sow was determined at various stages of development. Ovaries were obtained fresh from the abattoir and separated into the following groups: 1, early corpora lutea up to about the sixth or seventh day from the time of rupture of the Graafian follicle; 2, fully formed corpora lutea representing the various stages of early and middle pregnancy; 3, degenerating corpora lutea, and 4, corpora albicans. This separation does not take into account the correlation of the development of the egg and embryo, since the large amounts of ovaries were primarily for the preparation of progesterin. However this macroscopic separation demonstrated that there is variation in the level of progesterin which has physiological significance. Due care was taken in the dissection of each batch of corpora lutea that follicular fluid was not a contaminant.

Progesterin and oestrin were prepared and separated according to the method of Allen.<sup>1</sup> The progesterin content was determined according to the method of standardization of Corner and Allen.<sup>2</sup> The oestrin level was obtained by the vaginal smear test using castrated female rats. The number of rabbit units of progesterin and the number of rat units of oestrin per 100 gm. of corpora lutea are recorded in Table I.

It is to be noted that the progesterin content is highest during the

TABLE I.  
Rabbit Units of Progesterin and Rat Units of Oestrin per 100 gm. Corpora Lutea.

Batch No.	1	2	3	4
Rb. U. Progesterin	4.1	3.1	1.6	less than ¼
R. U. Oestrin	2.7	3.4	3.0	1.3

<sup>1</sup> Allen, W. M., *J. Biol. Chem.*, 1932, **48**, 591.

<sup>2</sup> Corner, G. W., and Allen, W. M., *Am. J. Physiol.*, 1929, **88**, 326.

first 6 to 7 days. If the hemorrhage weight were not considered in the above, the level of progesterin would be still higher since the hemorrhage which occurs in about 50% of the corpora lutea at this stage<sup>3</sup> increases the weight of the tissue. This high content of progesterin correlates well with the active growth of the granulosa cell during this period.<sup>3</sup> It can be physiologically explained by the fact that a completely proliferated endometrium is necessary for implantation of the fertilized ovum when it reaches the uterus.

The oestrin content of the corpus luteum is more or less uniform suggesting saturation of tissue and not actual preparation of oestrin. The values found here are about half those obtained by D'Amour *et al.*<sup>4</sup>

### 7746 C

#### Results of Repeated Determinations of the Blood-Cerebrospinal Fluid Barrier.

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Investigations of the barrier between the blood and cerebrospinal fluid by the Walter method<sup>1</sup> and its modifications<sup>2-5</sup> have amply proved its value as an aid in the diagnosis and treatment of mental diseases. A number of variations from this generally accepted procedure have been suggested as the result of studies intended to show that the distribution of bromide between the blood and cerebrospinal fluid does not attain an equilibrium at the end of the 5-day period of bromide ingestion.<sup>6</sup> Recommendations have been made that would alter the method or even change it entirely.

<sup>3</sup> Corner, G. W., *Am. J. Anat.*, 1919, **26**, 117.

<sup>4</sup> D'Amour, F. E., D'Amour, M. C., and Gustavson, R. G., *J. Pharm. and Exp. Therap.*, 1933, **49**, 141.

<sup>1</sup> Walter, F. K., *Z. f. d. ges. Neurol. u. Psychiat.*, 1925, **95**, 522.

<sup>2</sup> Hauptmann, A., *Z. f. d. ges. Neurol. u. Psychiat.*, 1926, **100**, 332.

<sup>3</sup> Malamud, W., and Mullins, B. M., *PROC. SOC. EXP. BIOL. AND MED.*, 1931, **28**, 871.

<sup>4</sup> Malamud, W., Mullins, B. M., and Brown, J. R., *PROC. SOC. EXP. BIOL. AND MED.*, 1933, **30**, 1084.

<sup>5</sup> Malamud, W., Brown, J. R., and Mullins, B. M., *PROC. SOC. EXP. BIOL. AND MED.*, 1934, **31**, 733.

<sup>6</sup> Fremont-Smith, F., Dailey, M. A., and Sloan, D. H., *Trans. Am. Neurol. Assn.*, in press.