



FIG. 5a

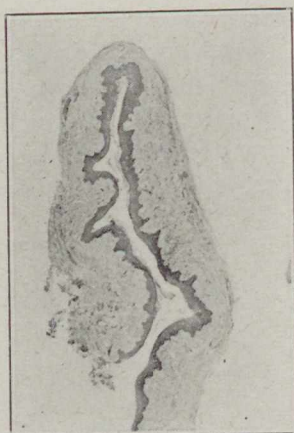


FIG. 5b

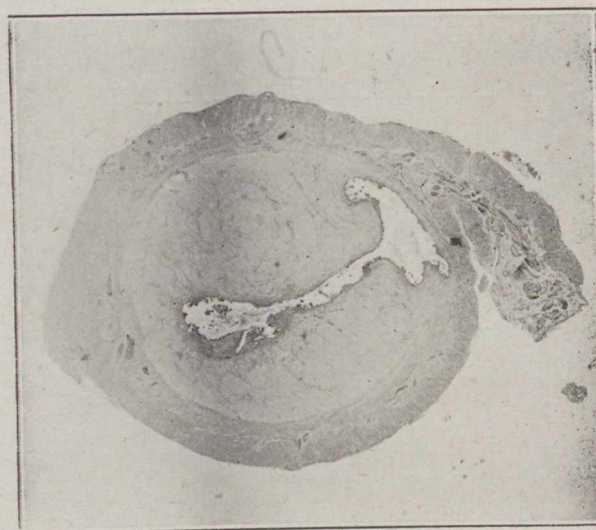


FIG. 5c

Senile rat in continuous oestrus. *a.* Ovary. *b.* Vagina. *c.* Uterus. Note cystic follicles in ovary, also hyperplasia of mucosa of uterus.

six weeks' observation the hormone was administered for one week in daily doses the equivalent of five grams of placenta. The animal continued to show daily squamous cell flushes. It was killed at the end of a week and no corpora lutea were found in the ovary. The follicles appeared cystic in character while the uterus was tremendously hypertrophied (Fig. 6).

These two rare examples of abnormal cycles in the rat are quoted because of the parallelism with certain clinical types of ovarian dysfunction which is suggested.

DISCUSSION

It has been our endeavour in this research to secure placental extracts free from oestrin, and also free from specific luteinizing factors. The active principle, while manifesting the property of a specific stimulant to the immature rodent ovary, causing it to develop to a mature state and to assume thereafter the normal cyclic function of the post-puberty state, should, we feel, be con-

sidered a pregnancy hormone. Our conception of the physiological significance of this active principle is that it is produced in the placenta throughout pregnancy for the specific purpose of assuring the continued functioning of the ovary. There is now ample evidence to show that both oestrin and the corpus luteum hormone are produced by the ovary during pregnancy and that ovulation is inhibited. That there must be other



FIG. 6.—Ovary of Rat No. 1, killed after two pregnancies. (See protocol for details).