

hypertrophy observable within 48 hours. There is proposed a numerical evaluation of this hypertrophy in the form of the ratio of the weight of the uterus in mg. to the weight of the animal in gm. Using this ratio the presence of theelin was demonstrated in pregnancy urine and a commercial preparation of theelin, differentiating these from a commercial preparation of the anterior pituitary-like hormone.

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Attempted Induction of Labor by Injections of Theelin.

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Setting aside as irrelevant to this discussion the effects which the hormones of the anterior hypophysis are supposed to exert upon the hormones of the ovary, we may accept as reasonably well established at least 3 facts: that the endometrial changes which precede menstruation are controlled during the first half of the menstrual cycle by the follicular hormone of the ovary; that they are controlled during the second half of the cycle by the lutein hormone of the ovary; and that the actual menstrual flow is precipitated by the withdrawal of the lutein hormone, with which is associated the beginning retrogression of the lutein body. To emphasize the positive rather than the negative aspect of the theory, we may say that since biologic inactivity is unlikely at any time, menstrual bleeding is initiated by the ascendancy of the ovarian follicular hormone over the lutein factor. Arguing from this premise, it does not seem unreasonable to assume that the onset of labor in a normal pregnancy which has reached term may be the result of a similar sequence of events, the ascendancy of the same follicular hormone over the same lutein hormone, which is known to be present throughout pregnancy.

To test this theory and in the hope of precipitating the onset of labor, a series of experiments was undertaken on 8 pregnant negro women at full term by injecting (subcutaneously) varying amounts

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of theelin, the commercial preparation of the ovarian follicular hormone. At the same time, on the assumption that the follicular hormone can be secured by the aspiration of ovarian follicular cysts at laparotomy, fluid obtained from this source was injected into 2 other pregnant negro women who were also considered to be at term.

TABLE I.

Primipara or Multipara	Amt. Theelin Injected cc. per dose	Time elapsed be- tween injections and onset of labor pains	Time elapsed be- tween the injec- tions and deliv- ery
		hr.	hr.
M.	1	24	60
P.	2	24	40
M.	3 Injection painful	120	125
M.	4 Injection painful	Discharged not delivered	after 72 hr.
P.	$\frac{1}{2}$ 3 doses		"
M.	$\frac{1}{2}$ 3 doses		"
M.	$\frac{1}{2}$ 3 doses		"
P.	1 2 doses		"
P.	1†		96 hr.
P.	4†		80 hr.

† Ovarian follicular fluid used in place of Theelin.

The preceding table furnishes the details of the experiment. It is questionable whether in any instance the onset of labor followed the injection of the hormone soon enough to be considered the result of it. The labors were normal in every respect, as were the children born of them, and the only conclusion to be deduced from this very small series of cases is that the ovarian follicular hormone, when administered subcutaneously and in the described amounts, has no influence upon the onset of labor. Whether the results may be different if larger amounts were given or other modes of injection resorted to is a matter of speculation.

The questionable value of negative results, especially in a small series of cases, is fully appreciated, but since scientific and clinical data are built up negatively as well as positively, the experiment is published as a matter of record.