Case	Sex	Age	Blood sugar	CO_2 capacity per 100 cc. blood.	Symptoms	Dose of glucose in gm. per day necessary to relieve symptoms
			mg. per 100 cc	cc.		
1	♀	12	85	58	Pallor, emaciation, phobias, irregular pulse.	60 to 100
2	♀	28	78	56	Pallor, emaciation, asthenia.	80
3	♀	28	92	56	Pallor, emaciation, asthenia, asthma.	70
4	♀	11	73	55	Pallor, asthenia.	60
5	♀	23	92	52	Pallor, emaciation, asthenia, night terrors, indigestion.	50
6	♀	60	87	61	Pallor, emaciation, asthenia, phobias, irregular pulse, indigestion.	50
7	♀	35	75	56	Pallor, asthenia, irregular pulse, indigestion.	60
8	♀	14	85	58	Pallor, phobias, night terrors, irregular pulse.	50
9	♂	21	90	60	Pallor, emaciation, asthenia.	50
10	♀	55	86	50	Pallor, asthenia, neuralgic pains.	40

258 (2490)

Cyclic variations in the spontaneous contractions of the human fallopian tube.

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In two recent papers it has been shown that periodic variations occur in the spontaneous contractions of the Fallopian tube during the reproductive cycle in the pig (Seckinger, 1923)[1] and in Macacus rhesus (Corner and Seckinger, 1923).[2] These in-

* Introduced by George B. Wislocki.

[1] Seckinger, D. L., *Johns Hopkins Hosp. Bull.*, 1923, xxxiv, 236.

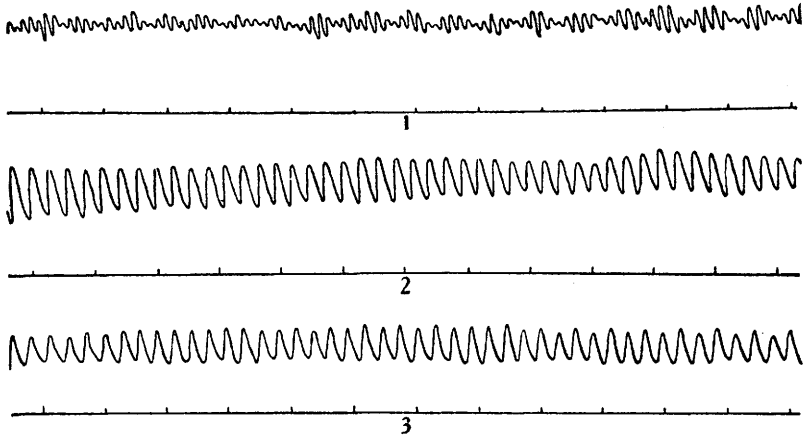
[2] Corner, G. W., Seckinger, D. L., *Anat. Record*, 1923, xxvi, 299.

vestigations demonstrated that there is a characteristic type of contraction at the time of ovulation in both the pig and the monkey. With a knowledge of this work, we have attempted to investigate the tubal contractions in the human during the different phases of the menstrual cycle and gestation.

Our method was similar to that used by Seckinger and Corner. Rings of Fallopian tube, immersed in warm, oxygenated Locke solution, were suspended from a lever which recorded on a kymograph. Our observations are based upon records of more than forty Fallopian tubes obtained from the Woman's clinic of the Johns Hopkins Hospital, through the courtesy of Dr. Cullen and Dr. Williams. Specimens which showed marked pathological changes were rejected.

We found in our series two types of tubal contractions. In one type the contractions were slow (about 4 per minute) and of equal amplitude (Figs. 2, 3), while in the other they were more rapid (about 8 per minute) with a tendency to periodic alternation in amplitude (Fig. 1). Transitions were found between these two characteristic types.

An attempt was made to correlate these striking physiological variations with the coincident histological changes observed in the uterus, tubes and ovaries of the same specimens. It was found as a rule that the slow contractions of equal amplitude occurred throughout pregnancy and the premenstrual, menstrual and early interval phases of the cycle. Figure 3 illustrates the contractions of a tube from pregnancy. Figure 2 is of a speci-



men from the menstrual phase. The more rapid contractions of unequal amplitude were observed during the midinterval and late interval phases (Fig. 1). The latter type of contraction is very similar to the type described by Seckinger and Corner as characteristic of the time of ovulation in the sow and monkey.

It may be of interest to describe the ovary of the specimen from which the tracing shown in Figure 1 was obtained. This ovary showed a dark purplish mass containing a cavity filled with a recent blood clot. On section the wall of the mass showed the granulosa and the theca interna not unlike a very early corpus luteum. This presumably represented a recently ruptured follicle. The Fallopian tube of this specimen showed the smooth, high (35 micra) epithelium characteristic of the midinterval phase in the human (Snyder, 1924).[3] The character of the tubal epithelium and of the ovary, as well as the physiological activity of the tube made it seem very probable that the specimen was from the period of midinterval, shortly after ovulation. Moreover, the clinical history placed the specimen as 14 days after the onset of menstruation.

The detailed observations upon which this summary is based are to appear later.

259 (2491)

Spontaneous interstitial myocarditis in rabbits.

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This study began with the observation of myocardial lesions in the hearts of normal rabbits and guinea pigs which served as controls in a series of experiments in which attempts were made to transmit rheumatic fever to laboratory animals.

The rabbits which form the basis of this report were obtained from a variety of sources over a period of 3½ years. They

[3] Snyder, F. F., *Johns Hopkins Hosp. Bull.*, 1924 (in press).