

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.

By C. PHILIP MILLER, Jr.

[*From the Hospital of the Rockefeller Institute for Medical Research, New York City.*]

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).

were kept under careful observation for periods varying from a few days to 4 months. None has been included which manifested any clinical sign of disease, such as snuffles, diarrhea, ear canker, loss in weight, cutaneous or subcutaneous infections. They were killed by a blow on the back of the head. A complete autopsy was performed, but only the hearts were prepared for microscopic examination. A number of sections of each heart were examined.

The lesions were somewhat more common in old than in young rabbits. They varied in size from small groups of 6 or 8 cells to large areas the size of a high power field. They consisted of infiltrations between the muscle fibers of lymphocytes and endothelial leucocytes. Some of the lesions, particularly the smaller ones, contained only cells of one type. In others they were mixed in varying proportions, to which were occasionally added small numbers of polymorphonuclear eosinophiles, fibroblasts and plasma cells. The lesions occurred most frequently between the muscle fibers of the papillary muscles and ventricular walls, but occasionally beneath the endocardium and epicardium. None was ever found in the valves or at the bases of the valves. The muscle fibers passing through the lesions occasionally showed loss of striation, but rarely evidence of marked degenerative changes.

Careful search has revealed no bacterial or protozoan micro-organisms or cell inclusion bodies. The incidence of the myocardial lesions bore no relation to the occurrence of coccidiosis.

The examination of the hearts of 34 apparently healthy adult rabbits has disclosed the presence of a spontaneous focal interstitial myocarditis in 60 per cent of the animals. This observation assumes considerable interest when it is recalled that several workers have considered the production of experimental myocarditis as one of the important criteria of successful transmission of rheumatic fever to this species of laboratory animal.