

mucosa of the uterus remains the same between two menstruations. Indeed only the interval, and to some extent the postmenstrual period also, had hitherto been recognised; the whole cyclic change remained absolutely unknown. The conditions applicable to only one phase,—i.e. the longest—were defined as normal and were described by the standard authors on the subject as though they were quite fixed. Everything which did not fit in with the limits thus drawn was declared to be pathological; thus, for example, *endometritis glandularis* was postulated.

It was not only the premenstrual changes that were overlooked but the whole fundamental cyclic change of the mucous membrane, the regular transition of the one form of gland into the other, and the cause and significance of such changes all remained unknown. The authors have now shown that the mucous membrane of the uterus of woman at puberty is in a constant state of transformation from the cessation of one hæmorrhage to the cessation of the next. The cycle falls into various phases, in which the mucous membrane behaves so characteristically that its temporal relation to the menstruation can be accurately defined from the microscopic appearance presented. The secretory activity of the glands of the uterus is restricted to a definite phase—the premenstrual. All the elements of the mucous membrane participate in its cyclic movement.

It is thus clear that it is impossible to obtain successful results from a study either of the non-menstruating mucous membrane by itself or of menstruating uteri by themselves, though this is the course which has so frequently been followed by investigations even in recent times. The hæmorrhage has to be considered in its relation to the whole cycle; it merely signifies the last phase of the cyclic development of the mucosa of the uterus, the retrogressive metamorphosis of the mucous membrane which has become almost decidual in its character, the introduction to a new cycle—to the new preparation for the admittance of an impregnated ovule.

It is natural to assume that the most important changes take place before the commencement of hæmorrhage. The conditions of the blood-pressure are in agreement with this assumption. The blood-pressure rises premenstrually until it attains its greatest height immediately before menstruation, and then falls pretty suddenly with the commencement of the hæmorrhage; and with the sinking of the blood-pressure the mucous membrane also decreases.

This cyclic transformation of the mucosa of the uterus is of fundamental importance for our comprehension of the physiological processes, and it is of great diagnostic value, for it allows us to determine