PART III.
HALF-YEARLY REPORTS.

REPORT ON
MIDWIFERY AND DISEASES OF WOMEN.

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1. CORRELATION BETWEEN OVULATION AND MENSTRUATION.¹

It is a curious circumstance of constant recurrence, and peculiar to no one branch of science in particular, that some of the commonest problems, upon which at first sight we might expect to be able easily to arrive at sound and enduring conclusions, are those very ones which longest escape solution. Thus, for example, the causes which govern so common and narrowly defined a phenomenon as that of labour at term, ample as our opportunities are for studying them, have so far received no satisfactory explanation. And thus too the nature of the relationship existing between ovulation and menstruation, which seemed so clear to our immediate predecessors, is a question concerning which, of late, there has been exhibited a growing diffidence and divergence of authoritative opinion. Here, as in other questions, doubts have grown despite, or more truly in consequence of, the much larger grounds for decision which have been opened up by recent advances in ovarian surgery.

Though a like view had previously been set forth by Themmen, of Leyden, in 1781, by Power; of London, in 1821, and by Gird-

wood in 1826, it was Négrier, of Angers, who, between 1830 and 1840, first systematically taught the necessary correlation of the maturation and dehiscence of Graafian follicles with the phenomena of menstruation. Négrier was followed and supported by Gendrin, Raciborski, Coste, Bischoff, and others, to whose combined advocacy the ovular theory of menstruation owed its general acceptance. According to this theory the menstrual flow is simply the outward manifestation of a widespread and intense congestion of all the generative organs, the *primum mobile* or essential antecedent of which congestion is to be sought for in the ovary, and more particularly in the periodic maturation of a Graafian follicle, culminating about the time of the flow in its rupture and the escape of an ovum. Menstruation is periodical, because its primary and essential element, ovulation, is periodical. This view at first rested upon considerations such as the following:—

(1.) *Post mortem* examinations made upon women who had died during, or shortly after, a menstrual period showed that a Graafian follicle was either projecting, and about to rupture, on the surface of the ovary, or that one had but recently so ruptured.

(2.) It was a matter of common experience that pregnancy occurred only between the time of puberty and that of the menopause; thus suggesting the inference that ovulation is in the main, at least, coeval with that period of a woman's life during which the menses appear. Hippocrates, to whom this fact was known, had likewise observed that sexual intercourse about the time of the menses was more fruitful than at other times. Anatomically also these facts were explained by the quiescence of the ovary before puberty, and by its atrophy after the menopause.

(3.) The effect of congenital defect or absence of the ovaries in causing amenorrhoea was noticed. Tradition had ascribed to the castration of young girls the subsequent entailment of amenorrhoea and assumption of a more virile type of physique. These results had followed upon the ablation of both ovaries of a young woman, aged twenty-three, by Percival Pott (1756) for double inguinal ovarian hernia. This woman previous to the operation had menstruated regularly; after its successful performance the menses ceased to appear, the breasts atrophied, and the entire muscular system increased so as to approximate in strength to that of a man.

(4.) Coste particularly studied the phenomena of "heat" or "rut" in other mammalia. He established the fact that in them the tumidity and congestion of the external sexual organs, usually