

in fetal life. There is no proof at all that pelvic congestion takes place, either coincident with or secondary to these processes, at any time in a woman's life.

Ovulation may also occur without menstruation in the dodging-period of puberty and of the menopause; for several years after the menopause as Hegar has pointed out; during lactation; in certain diseased conditions, *e.g.*, anaemia, phthisis, lead-poisoning. Pregnancy may take place at any of these times. DeSincéy describes an interesting case which he examined, of a woman, 38 years of age, who had never menstruated. In the ovaries there was the normal condition of Graafian follicles, and *corpora lutea* indicating that ovulation had taken place. The body of the uterus was undeveloped.

Then, in abdominal and *post-mortem* sections made at all times between menstrual periods, Graafian follicles may be found on the point of rupture or recently ruptured; and in examinations made during menstruation, no sign of ovulation may be visible.

(In this connection it is interesting to note that Heape examined the pelvis of forty-two monkeys (*Semnopithecus entellus*) during their menstrual periods and found evidences of ovulation being in progress in only two cases.)

It is a common observation that extensive disease of both ovaries, *e.g.*, cystoma, suppuration, malignant growth, may not affect the menstrual function to any appreciable extent in many cases.

These various facts are sufficient, it seems to me, to overthrow the view that menstruation is a necessary accompaniment or sequel of ovulation.

Yet it can scarcely be denied that there is some relationship between the processes.

Removal of the ovaries is followed by cessation of menstruation though in a certain number of cases this does not happen. As an interesting instance of this, may be mentioned Lawson Tait's patient from whom both ovaries and tubes along with a part of the uterus were removed, menstruation still continuing.

These exceptions have been carefully considered by several authorities, lately by Bland Sutton. He states that the reported cases have been mostly those in which chronic inflammation in and around the appendages has been present, or those in which operation has been performed for myoma uteri. His explanation of the persistent menstruation is that either small bits of the ovary have been left behind or that in the cases of myoma a submucous tumour may exist leading to hemorrhages. Many cases have undoubtedly been recorded in