

The *irritability* of the uterus is frequently markedly increased as the result of pregnancy. This fact is well known even to the laity, who not infrequently make use of their knowledge to induce abortion by introducing foreign bodies into the vagina to set up powerful uterine contractions.

The *contractility* of the uterus is its most important property. Tarnier and Chantreuil³ state that the uterus possesses the power of contracting even in a state of vacuity, citing by way of example that it may be noted in certain women at the period of menstruation, especially in cases of dysmenorrhœa. It favors the expulsion of clots and débris and is probably the origin of the severe cramp-like pains so often complained of by women at these periods. They state very strongly that these contractions of the uterus occur at regular intervals throughout the whole period of pregnancy.

Hirst⁴, Davis and others also draw attention to the fact that uterine contractions occur regularly throughout the whole period of pregnancy, and Hirst states that during pregnancy the contractility is always most marked at the menstrual epoch, hence the frequency of abortion at these times. After the fourth month these uterine contractions are manifest in placing the hand upon the abdomen over the fundus. The uterus can be felt hardening under the hand. In the earlier months these contractions can easily be made out by the bimanual method, and are frequently made use of in diagnosing the fact of pregnancy when the uterus is found to be enlarged.

Contractility is more markedly developed in the muscle cells of the body of the uterus, particularly towards the fundus, while it is less pronounced in the cervix. The cervix seems to be in a state of tonic spasm, while the contractions of the uterus are clonic. That this contractility of the uterus is independent of the will and yet capable of being affected by the emotions, all are aware. Uterine contractions may be set up reflexly by irritation of the breasts, and particularly of the nipples. It is probable that any powerful cutaneous irritation, as the application of heat and cold, may act in the same way.

The nerve-supply of the uterus is derived chiefly from the hypogastric and ovarian plexuses of the sympathetic system. Cohnstein* has shown that the uterine ganglia have to a certain extent an independent action, like the cardiac ganglia. There exists, as has been proven repeatedly, a center in the medulla oblongata which presides over the uterine contraction. Thus the uterus is provided with a nerve apparatus to preside over contraction, very similar to that of the heart.

That uterine contractions occur at more or less regular intervals throughout gestation may then be taken as proven. The question then arises; What is the purpose of these painless rhythmical contractions of the uterus.

It is very probable that by these contractions the uterine circulation is accelerated, and thus the uterus supplements to a certain extent the action of the heart throughout pregnancy. In considering the circulation of the blood in the gravid uterus the thing that probably attracts particular attention is the arrangement of the venous system. The