

of natural causes and the death of the ovum has occurred several days before its expulsion, it usually comes away entire. If the ovum is alive, or if the abortion be induced by mechanical means, the fœtus usually escapes, leaving the whole or a part of the chorion behind.

Bimanual examination shows the uterus enlarged, soft, except during a contraction, the cervix softened and more or less dilated, and often with a portion of the ovum plugging the os. After the expulsion of the entire ovum the pains and bleeding cease and the uterus contracts. If a portion of chorion or placental tissue be retained, the bleeding, pain, and dilatation may continue until it is expelled, or the cervix may contract, the pains become slight or cease, the bleeding stop, and the mass be retained either to disintegrate and come away in the discharge, to become septic, or, exceptionally, to develop into a fleshy mole. Rarely there may be death and infection of the ovum without producing either pain, hæmorrhage, dilatation, or foul discharge, the only symptoms being cessation of uterine growth, followed by irregular slight chills and septic fever.

After the third month the symptoms approach more nearly to those of a premature labor. We have the rhythmic pains, the hæmorrhage, which is apt to be more profuse, the dilatation of the os, and, more often, the spontaneous evacuation of the entire contents of the uterus.

Abortion may be considered inevitable when the result of a cause that cannot be removed, when the pains are severe or rhythmical, the hæmorrhage profuse, the os widely dilated, or when any portion of the ovum has been expelled.

Threatened abortion may sometimes be averted when the cause is a remediable one, and the pains, bleeding, and dilatation are only moderate. When abortion becomes inevitable one of two things happens, either the uterus empties itself entirely, or a portion of the ovum is retained. In the first case the uterus contracts, the pain and hæmorrhage cease, there is a pinkish flow for a few days, involution proceeds normally, and the condition remains practically the same as before conception. If, however, portions of placenta or chorion remain in the uterus the clinical picture is changed. The symptoms noted diminish at first, but do not entirely disappear; the pain may cease for a time and then reappear, and the fragments be expelled, or the os may contract and the fragment be retained until it gradually breaks down and passes away with the discharges. In this latter case the bleeding continues, as a persistent leakage, often for from three to six weeks, and may reduce the patient to an extreme degree of anæmia, though it in itself rarely kills. Very often, and almost certainly, if this incomplete abortion be the result of criminal interference

with the ovum, the retained tissues become infected and we have a septic process begun which may induce serious and persistent pelvic disease or directly destroy life. Sepsis is the condition most to be dreaded, the condition to be most carefully watched for, the condition to be most vigorously fought against. We must always be on the watch for its first symptom, and when we recognize it, whether it be as an elevation of temperature, a chill, or a fœtid discharge, we must remember its probable source and explore the cavity of the uterus. Septic material may be there even though the cervix be perfectly contracted and hard, though there be no hæmorrhage, no discharge, and possibly no other local symptom. I have seen several instances to which this description would apply, one of which ended in death. But the sepsis is not usually of a virulent type, the case runs on, the woman recovers from the immediate danger, but the fever, the hæmorrhage, the infection, have interfered with involution; the uterus remains large, heavy, and soft, and is apt to become retro-displaced; the infected mucosa, thickened, soft, and friable, becomes the seat of a chronic endometritis which may at any time lead to tubal and ovarian trouble, and the woman suffers indefinitely from the metrorrhagias, the pelvic pains, and the systemic depreciation which accompany these conditions.

*Treatment.*—A local examination is always imperatively necessary when any of the signs of impending abortion appear. Then, if the symptoms are not marked, if the pains are slight and irregular, the bleeding moderate, the os not much dilated, and the cause one that can be remedied, as, for instance, retroversion, we may hope by absolute rest in the recumbent position, by the administration of full doses of opium, and viburnum by suppository, or morphia hypodermically and by the re-position of the displaced uterus, to carry the patient through her period of danger and allow the gestation to continue. If the cramps are regular and well marked, the hæmorrhage considerable, and, particularly, if the os be dilated, these hopes will not be realized, the loss of the ovum becomes inevitable, and it is our duty to hasten its expulsion. As the method of procedure now varies according to the period of gestation, we may draw a line of division at the end of the third month, and consider the case as either "abortion" or "miscarriage."

*Abortion.*—As the uterus before the end of the third month is still comparatively small, and will not allow the accumulation of any considerable amount of blood in its cavity, the use of the tampon is sometimes permissible before the expulsion of the fœtus, not so much to check bleeding as to excite more vigorous expulsive contractions. When expelled, the patient is to be put in the dorsal position on a Kelly pad, the vagina and cervix