TREATMENT OF ABORTION*

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THE term abortion is applied to all cases of pregnancy terminating before viability of the fetus, i.e., up to the twenty-eighth week. They are classified as threatened, inevitable, incomplete, septic, complete, or missed abortion. We will consider the history, the findings, and the treatment of each type separately.

THREATENED ABORTION

History. One can usually elicit a history of amenorrhea with the associated symptoms of pregnancy referable to that period; such as nausea, vomiting, fullness and tenderness of the breasts, and frequency of urination. Bleeding is slight and often mixed with mucus. Pain is usually absent or the patient may complain of vague intermittent backache.

Findings. Vaginal examination should be limited to those cases in which the presence of an intrauterine pregnancy is doubtful. This should be performed with gentleness and under rigid asepsis. The findings are slight vaginal bleeding, the cervix is soft, and the external os is closed. The uterocervical angle is present. The size of the uterus corresponds with the period of amenorrhea, and is soft in consistency.

Treatment. Treatment is aimed at eliminating or preventing uterine contractions and controlling the bleeding. This is done by putting the patient to bed, eliminating enemas and cathartics, and administering intramuscularly morphine sulphate grain ¼ every six hours, and one rabbit unit of progestin daily until the bleeding and pain have ceased. Following this, the patient is kept in bed for seventy-two hours and on discharge is cautioned against vigorous activities. If the uterus was found retroverted, the patient is advised to assume the knee-chest position for ten minutes three times a day.

INEVITABLE ABORTION

History. The initial symptom may be premature rupture of the membranes with the escape of amniotic fluid. In other cases the onset is similar to threatened abortion, but with time, bleeding becomes more profuse and mixed with clots. Pain is a constant symptom and is described by the patient as being intermittent, cramp-like, and localized to the lower part of the back and abdomen.

Findings. The vagina is filled with blood. The cervix is soft, and the external os is patulous. Through the dilated cervix part of the ovum frequently protrudes. The uterocervical angle is absent. The uterus is soft and enlarged to correspond with the period of amenorrhea.

Treatment. Since the pregnancy can no longer continue our aim is to hasten its termination. Where bleeding is slight, expulsion of the products of conception can be quickened by stimulating uterine contraction. To do this a warm enema, a hypodermic injection of an ampule of obstetrical pituitrin, plus the oral administration of quinine grains 5, at two hour intervals are given for two doses.

Interference becomes imperative if the patient is hemorrhaging. Careful aseptic technique must be followed with every surgical procedure. In the afebrile case, the method of choice depends upon two factors: i.e., the dilatation of the cervix, and the duration of the pregnancy.

Up to the third month, if dilatation is not adequate, graduated Hegar dilators are used to open the cervix. Up to the eighth week the ovum is removed with a dull

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curette or a small ovum forceps. After this period, one finger in the uterus, alone, or in combination with an ovum forceps, is employed to remove the retained products.

Following the third month, cervical dilatation is facilitated by the use of a tight vaginal pack soaked in 4 per cent mercurochrome. This is removed at the end of twenty-four hours. Then one of two things will usually be noted; either the uterus will have completely emptied itself, or the cervix will be found sufficiently dilated to permit the insertion of one finger into the uterine cavity with which the placenta can be separated off the uterus and then easily removed with a placental forceps.

INCOMPLETE ABORTION

History. If part of the ovum is left behind, bleeding occurs in varying amounts. This type of abortion is most apt to take place before the ovum becomes firmly attached to the uterus, i.e., after the eighth week. The fetus is usually expelled, and part or the whole of the placenta remains behind in the uterus.

Findings. On vaginal examination slight or profuse bleeding is noted. The cervix is soft in consistency and the external os is patulous. The uterus is enlarged. Its size depends partially on the duration of the pregnancy, but mainly on the amount of tissue left in the uterus.

Treatment. In the aseptic case, prompt evacuation of these products is advocated to minimize the blood loss and the possibility of infection. The methods employed are similar to those described under the treatment of inevitable abortion.

SEPTIC ABORTION

History. All criminally induced abortions are potentially septic. A history of chills and fever points to infection. Sepsis is substantiated by temperature elevation, high leucocyte count, and low sedimentation time. Uterine cultures afford some aid in determining the virulence of the infecting agent. A gentle bimanual examination will inform the physician whether the infection has extended beyond the uterus. The presence of pelvic tenderness, induration, or a mass in either or both fornices are evidences of such extension.

Treatment. In the presence of infection, active treatment is limited to those cases which are bleeding profusely. If the cervix is sufficiently dilated, the retained products are gently removed with an ovum forceps. This procedure usually controls the bleeding and institutes adequate drainage. On the other hand if the cervix is closed, bleeding can be controlled and cervical dilatation obtained by packing the vagina tightly with a mercurochrome soaked pack. The pack is removed at the end of twenty-four hours when sufficient cervical dilatation will be present to permit the removal of the retained products with an ovum forceps, or occasionally the products will have been spontaneously discharged from the uterus. Curettage is contraindicated in septic abortion because such manipulation tends to spread the infection beyond the uterus.

Where bleeding is negligible conservative treatment is advocated. This consists in placing the patient's bed in high Fowler's position, and stimulating uterine contractions by placing an ice bag to the lower abdomen, and administering ergotrate, pituitrin, and quinine. Fresh air, sunshine, highly nutritious foods, and frequent small blood transfusions of 300 c.c. every four days are important aids in building up the patient's resistance against the infection. This expectant treatment is followed until the temperature falls to normal and remains so for five days. If at that time, secundines still remain in the uterus they should be gently removed to hasten the patient's convalescence. In most instances the cervix will be adequately dilated to permit the removal of these fragments with a large dull curette or an ovum forceps.

COMPLETE ABORTION

History. This term is restricted to those cases in which all of the products of conception are expelled. It is most apt to occur before the placenta has become fully de-

veloped; i.e., before the twelfth week. A history of vaginal bleeding and intermittent lower abdominal pains preceding the abortion is usually obtained. After the expulsion of the ovum, pain ceases and is followed by a slight bloody vaginal discharge which persists for a few days.

Findings. The cervix is closed and a slight amount of blood issues from it. The uterus is moderately soft in consistency, and smaller than expected for the period of amenorrhea which preceded the abortion.

Treatment. The after care of all completed abortions is most important. The patient should be kept in bed until the dangers from complications have subsided and the bleeding has ceased for a week. During this period, uterine involution should be aided by the judicious use of oxytocics, and having the patient assume the knee-chest position. Mammary engorgement, appearing on the third or fourth day, is relieved by a tight breast binder and ice bags.

MISSED ABORTION

The term is applied to a pregnancy in which the fetus dies and is retained in the uterus for some time. Litzenberg places an arbitrary limit of two months after fetal death between abortion and missed abortion.

History. At the time of fetal death, the patient experiences slight vaginal bleeding in conjunction with vague intermittent uterine contractions. A diagnosis of threatened abortion is made and the patient apparently responds to treatment. As the weeks go by the patient senses that something is wrong. The symptoms of pregnancy cease. The breasts become smaller, the abdomen fails to enlarge, and fetal movements fail to appear. If death of the fetus occurs after the fourth month of pregnancy the patient notes a cessation of fetal activity.

Findings. The expected signs of pregnancy for the period of amenorrhea are lacking. Thus there is an absence of fetal life, and the breasts are smaller. Vaginal examination, in some cases, reveals a slight brownish discharge. The cervix is soft and the uterus is not as large as it should be. The Friedman test often becomes negative and is of inestimable value in those cases which previously yielded a positive result. After the fourth month, roentgenogram will show overlapping of the flat bones of the skull, a positive finding of fetal death. If the diagnosis is still doubtful, re-examinations will demonstrate a failure of the uterus to enlarge, and with time a diminution in its size is demonstrable by actual measurement.

Treatment. Spontaneous expulsion of the ovum takes place in the majority of cases with no untoward effects. Occasionally active treatment is necessary. In the early months of pregnancy the cervix should be dilated with graduated Hegar dilators and the ovum removed with a large dull curette or an ovum forceps. In the later months, anterior vaginal hysterotomy may be necessary before the products of conception can be removed.

PROPHYLAXIS OF ABORTION

The treatment of a spontaneous abortion is never completed until all possible factors which led to it are ascertained and appropriate methods employed to prevent its recurrence with subsequent pregnancies. With this thought in mind, the fetus and placenta should be carefully examined macroscopically and microscopically for a possible cause. Constitutional disturbances as anemia, syphilis, hypothyroidism, the presence of foci of infection, and nephritis should be ruled out and corrected by a thorough physical examination and a complete laboratory work up. If an altered carbohydrate metabolism or a diet deficient in calcium, or vitamins such as B and E, is the cause for the abortion, the proper steps must be taken to rectify such defects. The knee-chest position and the pessary should be employed to correct a retroverted uterus before and during subsequent pregnancies. A deeply lacerated cervix, or a uterine prolapse may occasionally demand

operative correction before allowing another pregnancy to occur. If the determined cause for frequent abortions lies in an adherent retroverted uterus, operative interference may be necessary to free the uterus and correct the displacement.

The husband must also be thoroughly examined, bearing in mind that many abortions are due to a defective germ plasm. Local evidences of infection, endocrine disturbances, or dietary deficiencies should be corrected. Antuitrin s, and theelin has produced favorable results in increasing the virility of the spermatozoa where a diminished activity existed.

When pregnancy occurs in a patient who habitually aborts, she should avoid strenuous exercises as dancing, swimming, horseback riding, automobiling, etc. Coitus should be eliminated especially during the first trimester of pregnancy. It is advisable to keep her in bed during those periods which would correspond to her menstrual flow had she not been pregnant, since it is found that abortion is more likely to occur at these times than at others. Progestin in one-half rabbit unit doses twice a week in the first trimester of the pregnancy is advocated, especially in those cases where the cause for the abortion points to an "irritable uterus."

SUMMARY

1. The history, the findings and the treatment of the various types of abortion are reviewed.

2. In the diagnosis and the treatment of abortions, all vaginal manipulations must be performed gently and aseptically.

3. In septic abortion, curettage is contraindicated.

4. The treatment of a spontaneous abortion includes a careful search for the factors responsible for this complication. If found they should be corrected or removed, if possible, so that subsequent pregnancies will go to term.

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