Inevitable, Incomplete and Septic Abortion

BY

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I AM writing this article to express my approval of the treatment of cases of incomplete abortion recently advocated by Corston and Stallworthy (1947); to support their dicta by an account of my own experience; and to make some criticisms. The treatment advocated is far from new. It has been the recognized method at the Rotunda Hospital to my personal knowledge for the past 50 years and it is the treatment described in every book written by a Master or Assistant of the Rotunda during this century.

During my 7 years of Mastership (1919–1926), 1,347 cases of abortion and early miscarriage were treated in the patients' homes; 502 cases were admitted and treated in the maternity wards; and during 5 years (figures for 2 are not available), 103 cases were treated in the gynaecological wards. These figures include only cases that ended with evacuation of the uterus and termination of the pregnancy, and all primarily applied or were admitted to the Hospital because of the active condition of some type of abortion. The cases treated in the maternity wards include a small number of miscarriages, chiefly early, that is, pregnancies with a history of 12 to 20 weeks' duration, in which the foetus had died but attained a size to be born first and followed by a placental third stage.

In the teaching of the Rotunda emphasis has always been laid on the importance of distinguishing between the abortion which comes away in a mass or in fragments and the miscarriage which has the definite 3 stages of labour and in which the third stage calls for management much as it does in labour at term. Cases with a development of pregnancy of from 18 to 24 weeks with the foetus born, the placenta retained, the patient bleeding, probably present as difficult a problem and as alarming an appearance when first seen as can be expected, and they offer little excuse for procrastination and postponement of active intervention, but such cases in the Rotunda district after they have been dealt with by hopeful but futile conservatism fall to the lot of the junior member of the staff "the Extern Assistant."

The relative number of the various types of case included in the above figures may be best estimated from the following statements in 2 early clinical reports. The nature of the cases applying to the Rotunda have not altered in any way since. "There were 64 cases of abortion treated in the hospital during the year and in no case was there any serious rise of temperature or other complication. In 9 cases the abortion was complete and needed no treatment. Severe haemorrhage occurred in only 5 cases. In the management of those cases which required treatment the flushing curette was generally used." "The cases of abortion and miscarriage were 64 in number, in 2 instances there was an insignificant rise of temperature, in 18 no treatment was needed, in 8 the bleeding

was severe." These figures suggest a very similar type of case to that dealt with by Stallworthy, who, of 600 cases, states "42 were frankly septic," whereas in the reports quoted above what is referred to as a serious rise of temperature is illustrated by the following: "One of these had a temperature rising on the fifth evening to 104.8°F." "One was admitted with a temperature of 101°F." "One had a roll of bandage in the vagina with a quantity of blood clot and a temperature of 102°F." "These 3 were the only cases of high temperature occurring." Again the conditions with regard to haemorrhage were probably also very similar. One of the above cases had been bleeding for 3 weeks, another had repeated haemorrhages for some weeks.

The line of treatment adopted in the Rotunda Hospital is well exemplified by the following quotations: "Some did not require any special treatment, only those in which the haemorrhage was severe, or in which any part of the ovum was still retained were interfered with. In all these cases the treatment adopted was the emptying of the uterus; if possible by expression of the contents. This failing, and the os being sufficiently dilated, the ovum was removed by the finger, or if the latter condition was not fulfilled, by Rheinstadter's Curette. In 1 case the cervix was cicatricial, it was dilated with Hegar's dilators and a 4 months' foetus extracted by means of Schultze's spoon-forceps. The patient's temperature rose on the evening of the 6th day to 104.6°F. and after a uterine douche fell to normal and remained so." "Another patient was admitted in the 4th month of pregnancy with a foetid discharge. The foetus could be felt in the dilated cervical canal. The external os was only the size of a threepenny-piece, it was divided bilaterally and the foetus extracted by Schultze's spoon-forceps. Free haemorrhage followed, the uterus was curetted and plugged with iodoform gauze. Convalescence normal."

In addition to the cases during my Mastership there were 777 cases treated in their homes, and 164 in the maternity wards during the 3 years that I was Assistant Master (1902–1905), making a total of 2,993; besides these there are the cases with which I have had to deal in private practice which have all been managed on the same lines as those in the Rotunda Hospital. All the cases referred to in the Rotunda were long before the advent of sulphonamides or blood transfusions, as were the great majority of my private cases. I have had no deaths in private practice and there were none in the early series (1902–1905) which were before even the adoption of intravenous saline, when reliance was placed on replacing fluid subcutaneously. There were 6 deaths; the following are the individual details.

CASE 1. Four months pregnant; bleeding for a week; refused to send to hospital. When first seen foetus born; patient bleeding severely. The placenta was retained but easily removed. The woman failed to respond to restoratives.

CASE 2. Three-and-a-half months pregnant; foetus born; placenta retained 3 days, easily removed. Temperature and pulse raised. Died on 26th day. Autopsy showed abscess of lung due to haemolytic streptococcal infection.

CASE 3. Admitted as incomplete septic abortion, uterus emptied with finger, uterine douche given. Signs of peritonitis developed. Vaginal hysterectomy done on 2nd day. Died on 3rd day.

CASE 4. Admitted as incomplete abortion, bleeding for a week; temperature raised. Uterus emptied with finger and douche given. Low morbidity, marked debility and anaemia. Went home against

advice 12th day, temperature 100°F. Died suddenly 2 days later.

CASES 5 and 6. Both miscarriages at 24th week; admitted with retained placentae. One died while being anaesthetized prior to manual removal. The other had rigors and temperature 103°-105°F. from first day and died on 11th day.

In my *Practical Midwifery* (1923) I say under "Threatened Abortion": "If any cause for the condition can be found it must be corrected at once if possible. Thus a retroverted uterus is replaced and supported by a pessary. It may not prevent the abortion. When the bleeding persists all discharge should be inspected for fragments of the ovum which would indicate the change to incomplete abortion. When the bleeding is moderately severe and persistent it may be an indication for emptying of the uterus and will nearly always be associated with a dead ovum. The bleeding is very seldom of sufficient severity to call for interference in the presence of a living ovum unless there is active uterine action which will undoubtedly terminate the pregnancy." Under "Incomplete Abortion" I say, "when a case is diagnosed as an Incomplete Abortion, either when first seen or after treatment as a threatened abortion, it is better to complete the emptying of the uterus at once." Under "Septic Abortion" I say, "there is only one rational treatment, and that is to clear out the cavity." I repeat these remarks in my *Obstetrics* (1937) but modify the first and say "the bleeding is never so severe as to *require* emptying of the uterus if the ovum is alive." This line of conduct implies the necessity of making a vaginal examination in the first instance: First, to establish the fact of pregnancy and to estimate its duration, which may not correspond to the history. Second, to define the condition and position of the uterus. Third, to ascertain the degree of dilatation of the cervix and the extent to which the uterus has evacuated its contents. Then if the condition is considered inevitable or incomplete, whether it is suspected of being septic or not, the uterus is evacuated in the patient's own home without delay or she is moved into hospital for evacuation. Stallworthy says "failure to make this preliminary examination can result in the soft wall of a pregnant retroverted uterus being perforated." How anyone could contemplate passing any instrument without first defining the position of the uterus is difficult to conceive, while the omission of this examination prevents a differential diagnosis. Further, he says, in connexion with septic cases: "If haemorrhage was severe the patient was taken to the theatre without further delay: if it was not severe operation was postponed for 12 to 24 hours to obtain concentration of sulphonamides." Such a line of treatment is inconsistent with the theme of his paper, nor are there any definite signs indicated by which the fact of sepsis being present is established. It would not be reasonable to claim that all cases with fever are septic and recover only by virtue of the sulphonamides, nor could such be held in face of the cases I have cited. In private practice I have followed the same line of treatment; either evacuating the uterus in the patient's own home without delay if the condition found on examination indicated that such treatment could be effected easily, or I have moved the patient into a nursing home, usually in my own car, and evacuated the uterus without delay. If the patient has bled severely or was continuing to bleed severely I have not infrequently given an anaesthetic (chloroform) myself rather than delay when I have had difficulty in finding an anaesthetist.

I have never regretted immediate action as an alternative to permitting further loss of blood. In such a case the cervix will

usually admit the finger but if not is always easily dilated to 14 to 16 mm., which will admit a finger, while less will admit the only form of curette that should be used, a Rheinstadter's blunt flushing curette or spoon, carrying a free flow of fluid with a pressure not greater than that produced by a 12-inch head. A Rheinstadter's curette has no cutting properties, it scrapes the surface and hooks and flushes loose material out of a cavity. The majority of patients, when the uterus has been emptied and rubbed up bimanually, cease to bleed, just as after manual removal of the placenta, and the uterus does not require to be plugged. In my books I say plugging should be removed within 6 hours and septic abortions should not be plugged. The patient is better for being allowed out of bed for all necessities afterwards, allowed to sit up next day and go home on the third or fourth day. Iron and ammonium citrate, gr. iii thrice daily, will restore the blood loss in the next few weeks as rapidly as can be and is the maximum dose of iron that can be absorbed; it is better continued for a couple of months and in such doses will not cause gastric disturbance.

Stallworthy refers to venous spasm as evidence of extreme blood-loss or shock. In my opinion such spasm is evidence of full compensation for the loss incurred and maintenance of same by vasoconstriction and therefore there is no anaemia of the brain centres. The essential in treatment is to stop further loss and if this is effected before the vasomotor centre suffers from anoxaemia balance will be fully maintained. On the other hand if delay allows anaemia of the centre to develop vasoconstriction will fail and the resulting fall in pressure, although it will probably stop the bleeding, leaves the patient in a precarious state from failure of the autonomic system. Blood transfusion may maintain a balance, it may also restart the bleeding and the blood be lost as rapidly as it is introduced; little is gained until the bleeding is stopped. In the same way oxytocic drugs produce a forced activity of the vasomotor centre but their local action is by contracting the bleeding site and this is ineffective if the site is not clean or the cavity is not empty; therefore when their action passes off the subsequent collapse is the greater. The one essential is to stop the bleeding before the vital centres are affected and then they will maintain full compensation. In the *British Medical Journal* (2.8.47), in the answer under the heading "Removal of Placenta", the advisability of giving ergometrine is queried and it is stated: "Usually it produces immediate separation of the placenta which can then be expressed. If, however, the placenta does not come away at once manual removal has to be carried out without delay." Obviously the reason for this is that the drug has promoted bleeding by separating the placenta, and delay risks the imprisonment of the placenta by hour-glass contraction, while the drug does not control the loss. The same applies to the action of this drug in the treatment of abortion, except that the forced uterine action may complete the emptying of the cavity and so the bleeding will cease. This paper is largely composed of quotations but I will close with one more from Purefoy's Clinical Report for the year 1902-1903. "It is not a little surprising how uncertain and timid most modern obstetric writers are in giving instructions as to the treatment of inevitable abortion and miscarriage. Masterly inactivity on the part of the physician cannot be too strongly condemned in these cases."