

the children. The theatre is very good; old French comedies and comic operas are presented, and occasionally some really good actors make their appearance. So the visitor can fill up the day not unpleasantly.

The season opens about the middle of June, and closes on the 15th of September. The period is thus short, because the weather at the extremes of the season is unreliable. The snow often falls before the actual day fixed for the close, but sometimes patients can stay until October with advantage. But the arrivals begin to cease about the second week in August, the hotels are practically empty towards the middle of September, the doctors take their departure, and Mont Dore soon goes into its winter sleep.

ART. XII.—*Abortion: its Ætiology and Treatment.*^a By ALEX. DEMPSEY, M.D., Q.U.I.; L.R.C.S.I.; Physician and Gynæcologist to the Mater Infirmorum Hospital, Belfast; Vice-President, Ulster Medical Society, &c.

IN the treatment of abortion, as in every other pathological condition, a correct knowledge of its ætiology is necessary. The adoption of a general routine plan of treatment for all cases will often result in failure and disappointment. The usual practice, when called upon to see a case of threatened abortion, is to ascertain whether there is much hæmorrhage or pain, and to examine the condition of the os. If only slight hæmorrhage is present, and little or no pain, and if the os is not dilated, an effort is made to arrest the abortion. On the other hand, when hæmorrhage is profuse, and has been going on for some days, and when this is accompanied with pains and dilatation, treatment directed to the speedy emptying of the uterus is adopted.

I look upon this plan of procedure as a rather rough and ready way of dealing with these cases, and not in keeping with our knowledge of the causation of abortion.

In a practical discussion like the present it would be out of place to do more than briefly refer to a few of the principal features in the ætiology and pathology of abortion, and I will only do so to exemplify the treatment adopted for different conditions. Abortion is the dissolution of the partnership between the ovum or foetus and the mother. It is a visible evidence of their inability to agree. The initiative in the process of severance may be (1) on

^a Read before the Ulster Medical Society, 1887.

the part of the ovum, or (2) on the part of the mother, or (3) it may be due to an abnormality of relationship between the two for which neither is responsible.

The causes of abortion on the part of the ovum are all diseases of the fœtus which occasion its death, and all diseases of the appendages which tend to a similar result. Among these may be mentioned the various zymotic diseases communicated by the mother to the fœtus—syphilitic disease of the ovum, cystic degeneration of the chorion, imperfect development of the decidua reflexa, fatty degeneration of the placenta, knots in the cord, and extravasations between the appendages. On the maternal side, abortion may be induced by all causes leading to ill health on the part of the mother, such as the abuse of alcohol, unsanitary surroundings, over-fatigue and excesses of every kind; also during the course of zymotic fevers and in acute attacks of the respiratory or other important organs; poisons in the blood, as of syphilis, of lead, and of the excrementitious products present in albuminuria; causes acting through the nervous system, such as shock, fright, and anxiety, and reflex nervous irritation communicated from other organs to the uterus, and other disturbances accompanying the pregnant state; direct injuries to the uterus, as blows or falls; flexions and displacements of the uterus, with or without adhesions; fibroid tumours, or other interference with the enlargement of the uterus; malignant disease and the existence of endometritis at the time of conception.

Under the head of abnormal position of the ovum, placenta prævia occupies the principal place.

Cases of extra-uterine gestation, while necessarily giving rise in the vast majority of instances to an early and abrupt termination of pregnancy, come under a special class, and need not be further referred to.

After enumerating all these various causes of abortion, the practical question arises—Are we able, when called upon to treat a case of threatened abortion, to tell from what particular cause it arises, and, if so, is there a special treatment for each variety? I think the answer to this question should, after careful inquiry and examination, be in the affirmative.

The history of cases of hydatid disease of the chorion is suggestive of the condition. The rapid enlargement of the uterus, the severe general disturbance of the health, the presence of a peculiar sanguineous discharge and the absence after the fourth month of

the foetal cardiac sounds, furnish strong presumptive evidence; but when these are associated with the discharge of portions of the cysts the diagnosis is complete. The treatment here is obvious. The sooner the uterus is completely emptied of its contents the better.

In November, 1885, I saw the following typical case:—Mrs. M'C., multipara, between three and four months pregnant; very bad health all the time; for two weeks had sanguineous discharge of prune juice character; had been taking medicine to arrest it. I found the abdomen as large as it would be at the sixth month of pregnancy—quite out of proportion to the period of gestation. She had felt no foetal movements, and there were no foetal heart-sounds discoverable. The os was patulous, but no pains had set in. I diagnosed cystic degeneration of the chorion and gave a few large doses of powdered ergot for the purpose of emptying the uterus. Next day I found almost a basinful of hydatids had been expelled, attended by severe hæmorrhage. The patient afterwards did well. There was no use in this case endeavouring to prolong pregnancy; on the contrary, the proper course was to terminate it as soon as possible.

In a syphilitic patient with hæmorrhage, however slight, no hope should be entertained, nor time lost in preventive treatment, provided we are able to satisfactorily exclude the operation of other causes. The ovum is already dead, and its casting off should be expedited. The existence of fatty degeneration of the placenta can be surmised only from a history of previous abortions or premature confinements in which syphilis can be excluded. Abortion from this cause generally takes place late on in the pregnancy when the child is viable. I have a patient under treatment at present who aborted three times in succession before the end of the sixth month. She is now pregnant, and under the use of iron and chlorate of potassium, she is into the seventh month, and may go on to term. But in these cases, also, I doubt if, when signs of abortion set in, there is any hope of arresting it. In this disease, according to Goodell, abortion is an anticipation of the natural termination of the existence of the placenta.

I never knew abortion occurring during fevers or acute diseases to be arrested. In albuminuria during pregnancy, abortion appears to be the best effort nature can put forth to relieve itself. It is questionable practice to attempt to prevent it, and is not likely to be attended with success. The poison has been slowly accumu-

lating, and if this safety valve for escape were denied the patient a greater danger might arise. In this condition, too, other causes must be excluded. The use of the catheter, and the examination of the urine, furnish strong evidence of the cause. Of course there are some cases in which the albumen is scanty that the process of abortion might, if possible, be safely and advantageously arrested. The presence of malignant disease of the cervix, I think, should be also a reason for non-interference in the early termination of pregnancy.

Tumours in the neighbourhood of the uterus, and adhesions preventing its growth, will, in most cases, precipitate abortion in spite of all our efforts to prevent it. But an attempt should be made in the hope that stretching and accommodation may take place, and the uterus, if retroflexed or retroversed, should be gently raised. There is usually not much difficulty in restoring a gravid retroversed uterus if no adhesions exist. I have in my mind one case with a retroverted uterus in which signs of abortion had set in; in it, by the administration of opium and replacement of the uterus in the genu-pectoral position, abortion was prevented. The diagnosis of this cause of abortion is generally easy. Fortunately an opportunity of treating misplacements of the gravid uterus is afforded before active symptoms of abortion set in.

The constant back-ache, the rectal and bladder trouble, the weight and sinking complained of, make the majority of patients, if not decidedly careless about their condition, apply for advice. A vaginal examination will at once discover the cause of suffering. The treatment here is rest in bed in the face position or inclining towards the face. If there are no adhesions, a few days' rest will rectify the displacement. Gentle steady pressure in Douglas' pouch above and behind the retroverted uterus, while the patient is placed on the knees and face, will expedite the restoration, but if force be used, there is danger of either precipitating abortion or of rupturing adhesions, if they exist, and thus causing cellulitis or an hæmatocele.

If the pregnancy is not far advanced, and there is difficulty in restoring the uterus to its normal position, or if there is a tendency for it to return to its old position after being restored, or an inability on the part of the patient to rest in bed, under such circumstances I am in the habit of introducing an easy-fitting Hodges' pessary with beneficial effect. At the same time opium or some other sedative medicine should be given to allay irritation.

The diagnosis of cases of abortion in which endometritis existed

at the time of conception, may be arrived at from the history and by a vaginal examination. The cervix is hard and indurated, the os patulous, rough, and abraded. In such a condition the nutrition of the decidua is likely to be so much interfered with that a continuation of the pregnancy is impossible, and no steps should be taken in that direction if hæmorrhage is present.

In fibroid tumours of the uterus and abnormal position of the ovum, as in placenta prævia, the occurrence of early hæmorrhage almost invariably terminates in abortion. I know no means of diagnosing these cases of fibroids in the pregnant state, except they be large or one has a previous knowledge of the patient. The occurrence of repeated hæmorrhages should excite suspicion of the existence of placenta prævia. I think that often a tumour of the body or fundus is the cause of placenta prævia in pregnancy. A suitable nidus for the ovum is not found until it drops so low down in the uterus as to come into dangerous proximity to the unexpanding cervix. The first fatal case of placenta prævia I attended was in a patient suffering from a pretty large mural fibroid. Hæmorrhages recurred from time to time until abortion occurred at the sixth month of pregnancy, followed by septicæmia, from which she died.

In all cases of threatened abortion from nervous shock, direct injury, reflex irritation, or from any other cause unassociated with pathological change, an attempt ought first be made, even after the appearance of hæmorrhage and pain, to arrest it. These are about the only cases that give much hope for successful preventive treatment. An opportunity is frequently given in these cases for treatment before the onset of active symptoms. A feeling of uneasiness or anxiety, and what is frequently described by patients as "a feeling of confusion in the womb," is complained of, and advice is sought in apprehension of consequences. Of course with these, as with others, if flooding is profuse, pains regular, and the os dilated, there would be no use in attempting preventive treatment.

The first essential in the preventive treatment of abortion is absolute rest, from the onset of the very first symptom until all uneasiness has for several days disappeared. Until some time ago I was in the habit of giving, at the same time, opium in combination with an astringent. Latterly, at the outset, I give a hypodermic injection of either morphin or nepenthe, and then a mixture containing either nepenthe or morphin every third hour until the

symptoms pass away, or their urgency demands a different course of treatment.

I have tried the liquid extract of *viburnum prunifolium* in some cases, but not sufficiently to enable me to say much for or against it. I gave it to a lady last June who was threatened with abortion at the second month. She was a multipara, and was under treatment before becoming pregnant for subinvolution and endometritis. There was an abrasion of the cervix, and I thought that the hæmorrhage, which was slight, might in part be due to it. I prescribed 40 minims of the liquid extract every third hour, with what I considered good effect. The discharge on the third day had almost quite ceased, but owing to the sickness of stomach it produced I was obliged to discontinue the drug. The hæmorrhage, however, did not return. After keeping her some days longer in bed I allowed her up. In a few days more she went to the seaside, and was there all July and August. On the day after she returned home hæmorrhage again occurred, and I was sent for. I was surprised to find on examination that the uterus was just the same size as it was two months previously. As the bleeding was smart and the os dilating, I plugged and gave ergot, and on my visit next day I found a small fleshy mole had come away. The ovum had perished in June, but had been retained for two months. The drug had evidently made the uterus tolerant of its presence, and probably prevented its complete separation. The case was, however, not a suitable one, owing to the previously diseased condition of the womb, and I intend giving this medicine a further trial.

The treatment of actual abortion, when expectancy is over, is frequently troublesome and perplexing. If the liquor amnii escapes and the foetus comes away, the placenta and membranes are often retained for days and give rise to troublesome hæmorrhage. When this latter is arrested and the uterus unemptied, the danger of septicæmia sets in. All such cases give any amount of trouble and anxiety to the medical attendant, and not infrequently blame if any bad result should occur, either immediate or remote. If the ovum remains entire, as is usually the case in early abortion, the difficulty is not so great. I think it is bad practice to hasten its removal too much. Time should be given for the proper dilatation of the os before any attempts are made at removal by the finger introduced into the uterus. Such attempts rupture the membranes and occasion irregular contractions, which terminate by shutting in instead of expelling the ovum. A similar

effect is produced by the improper administration of ergot. This drug should be given in large doses in quick succession for three or four hours and then stopped. It should not be commenced too soon or continued too long. I have no faith whatever in the liquid extract in abortion. If the administration of ergot is commenced too soon there is a greater danger, to my mind, of retention of the secundines, than if it had not been given at all.

If when called to a case I find abortion inevitable, but the os not much dilated, I prescribe opium and dilute sulphuric acid, and plug the vagina. In ten or twelve hours I remove the plugs, and generally find pretty fair dilatation present.

I introduce fresh plugs, and order ℥ii. (two drachms) of freshly powdered ergot, in four powders. The first two to be given after infusion within half an hour of each other; the other two with two hours' interval between them—that is, in four and a half hours two drachms of powdered ergot have been taken in infusion. When the tampon is removed again the entire secundines are generally found behind it, or so near to the os that they can be removed by the finger. If the os is open, but the placenta high up, I endeavour, by pressure above, to drive it within reach, and I introduce as much of my hand as possible into the vagina, so as to get my finger well into the uterus. By this means I can generally scrape away the whole of it. I have tried ovum forceps and ordinary uterine forceps when I have failed with the finger, but I never got any assistance from them. If, after all, some portion of the placenta remains, I give the ergot a second time and go through the same process. Should failure again result, I use antiseptic injections and give a purgative early. I have found this latter sometimes dislodge the broken up portions of placenta by, I presume, reflex action. I remember one case where a whole placenta, at the fourth month of pregnancy, which I was unable to get away, was dislodged during a purged motion from castor-oil.

I have no experience of the use of the sponge or tangle tent for dilating the cervix in abortion, and I do not think it is a very safe practice. I remember one case where, owing to some obstruction to the exit of blood at the cervix, the uterus enlarged in one night to nearly double its size, and the pain was most intense. I feared in this case either rupture of the uterus or regurgitation through the Fallopian tubes, and effusion of blood into the sac of the peritoneum. I had one case of abortion where this actually did occur, producing an immense pelvic hæmatocele.

Plugging the vagina with cotton wool does not absolutely prevent bleeding, but it controls it so well as to render the amount harmless. Besides, its presence in the vagina excites uterine contractions, and is, therefore, of assistance in the case. The offensive smell can be prevented by saturation with glycerine. For plugging I always use a duck-bill speculum, and again when removing the plugs. In this way very little pain is occasioned. There is no necessity to fill the vagina very tight; moderate distension is sufficient. I have no doubt chloroform would be of valuable assistance in these operations, but I have never used it. Indeed, latterly, with the plan of treatment I have sketched out, the ovum either comes away without operative interference, or requires so little as to occasion scarcely any pain.

I regard the curette as a very valuable instrument when small portions of the placenta are retained, and I have latterly used it with satisfactory results. With due antiseptic precautions there is no danger in its use.

I have purposely omitted all reference to the treatment of diseases consequent upon abortion, as falling outside the scope of this discussion.

In conclusion, I desire to express my strong belief in the value of antiseptics in all examinations and operations required in the treatment of abortion.

ART. XIII.—*The Evil Effects of Imperfect Sanitary Laws.*^a By
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ALTHOUGH sanitary legislation is comparatively recent, being practically of the last forty years, and although the Public Health Acts did much to codify Acts and clauses dealing with sanitary matters, sanitary law is still not all that might fairly be desired, either in clearness or completeness. Acts have to be “read together,” and judicial “decisions” are needed to explain how they are to be interpreted. The Dogs Act of 1871 affords a ludicrous example of this; the first section enacts that any “police officer may take possession of any dog, that he has reason to suppose savage or dangerous, straying on any highway, and not under the control of any person.” The question at once arose whether a dog unchained, but “at heel,” was in “control,” and that question,

^a Read before the British Medical Association in the Section of Public Medicine, Friday, August 5, 1887.