operation was performed in a proper manner and the immediate convalescence was normal, and there can be no question, therefore, of the introduction of infection from without at the time of operation. The fact remains, however, that sepsis did subsequently develop in the region of a cleanly closed appendix stump. The following explanation suggests itself to me:

The patient was a well-built muscular man, and the appendix was removed through a minute pararectal incision made some distance from the site of that organ. Now if this had been a difficult retrocaecal appendix—and that seems likely from the previous history—its removal through such a small incision, even under the most excellent anaesthesia, must have presented very considerable mechanical difficulties, and I think it more than probable that a certain amount of pulling about, which would not have been necessary through a more extended approach, occurred, with the result that the tissues in the region of the appendix stump were bruised and their vitality lowered, so that infection from the lumen of the bowel gained entrance through the damaged caecal wall, with the subsequent development of an abscess cavity and erosion of a caecal vessel.

While admitting that great reputations are not infrequently constructed around small incisions, I would submit that the cosmetic result in such cases in no way justifies the turning of what ought to be a comparatively easy operation into a surgical hazard.

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IS IT EVER NECESSARY TO KILL A LIVE BABY? *

BY

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In bringing this subject before you the first question to be asked is, What is a live baby? Do we mean by this a child before viability—that is, before the twenty-eighth week? I do not believe that a child is viable until then, in spite of the stories of infants of 2 lb. living and thriving. I mean to deal in this paper with the destruction of the fertilized ovum at any stage of the pregnancy. The title of the paper may be questioned, and it may be suggested that it should be: "Is it ever necessary to perform craniotomy on a live baby?" I prefer to retain the title chosen, for it emphasizes better the points to be considered.

Before delving into the absolute medical aspects we must consider the ethical question as raised by Aleck Bourne in July, 1938. At the time Mr. Justice Humphreys stated that the law has never been concerned with the ethics of abortion, but only with what is commonly called criminal abortion, and he explained that if a reputable doctor operated with a desire to save a patient's

life, and after consultation with one or more colleagues, the law would never be so stupid as to suggest that he had committed a criminal offence. This fact has been well known for some time. The question as to the safeguarding of a patient's health or life is a difficult one, and in my opinion a wrong argument was raised when it was suggested by one of the lawyers that rheumatism was only dangerous to health, and cancer to life: surely there are many forms of rheumatism which, although not immediately dangerous to life, are sooner or later remotely so. The whole thing depends on the honesty of the doctors.

To come now to really obstetrical problems, it would seem unnecessary at the present stage of scientific knowledge to bring forward a paper with such a title as that chosen, but my excuse for its publication is that the public is apparently ignorant of the advances which have been made.

The First Twenty-eight Weeks of Pregnancy

During this period the problem may arise in various ways. First, I will deal with the toxæmias. Preventive obstetrics has done much to stamp out most of the severe cases, but one still encounters instances, especially those of hyperemesis gravidarum, which test the diagnostic skill of the obstetrician to the greatest extent. Pregnant patients should be seen as soon as possible, and they will not vomit if they are treated in the correct psychological manner; but if the friends of the patient tell her she should surely vomit when pregnant she will do so, and hyperemesis and death may result. Often we encounter the dreadful cases where constant vomiting and collapse are the prominent symptoms. In these cases of hyperemesis jaundice may be present, and a positive Fouchet test and van den Bergh reaction emphasize the dangers, while abundant albuminuria and a high blood pressure point still more to the enemy we are fighting—death. I do not intend to dwell much on the treatment of this condition when it is serious: prevention is the keynote; but when we *do* meet it what must we do? Starvation, glucose, insulin, hormone therapy, gastric lavage, jejunostomy are some of the treatments which can be studied in the textbooks. Termination of the pregnancy is indicated sometimes, but death will supervene in these cases if the induction is left too late. When, if ever, should the pregnancy be terminated? If in spite of thorough and careful treatment for three or four days the Fouchet or van den Bergh reaction is positive, if there is marked albuminuria, if the pulse rate is increasing and its volume is getting weaker, if the patient is getting jaundice, a timely removal will save life if not left too late, and it is my belief that if the patient is so ill that termination of the pregnancy is required and the necessity for it is decided on by a competent obstetrician the ovum is dead. The best way to terminate the pregnancy in a critical case is by either vaginal or abdominal hysterotomy, but if the patient is so located that the doctor does not feel justified in performing this operation he can curette in the first three months, but in the second three months the patient should be transferred to a maternity hospital.

Other toxæmias of pregnancy scarcely ever arise in the early months, but if a renal toxæmia occurs from the twenty-fourth to the twenty-eighth week the patient should be brought to hospital, where with ordinary care it will be possible to carry her on until the child is viable. I believe that it is easy at this period to mistake a toxæmia for a pyelitis, or at least a pyelonephritis, and the greatest care must be taken to make this diagnosis, which can easily be done by clinical and laboratory methods.

* Read before Lincoln Medical Society, February 23, 1939.

If a pseudo-accidental haemorrhage occurs before viability the ovum will be dead and the ordinary measures for dealing with this complication should be carried out. I use the term "pseudo-accidental" because I hold that the term "accidental" should not be used until after the twenty-eighth week. Students still write of it before this date.

Cardiac Disease

With compensation the question of induction does not arise, for the patient carries on with ordinary medical treatment. When not compensated the patient should not become pregnant; but if she does, induction during the first three months is occasionally necessary after consultation with a reliable physician, and with the written sanction of husband and wife. If this is not forthcoming the patient should be treated on general lines by a physician; many of these cases progress satisfactorily to full term, though a fatal result may ensue soon afterwards. The general opinion is that after the third month treatment of the heart condition is indicated. The labour is conducted on academic lines. The first stage is made as easy as possible by the use of hypnotics, and forceps are applied as soon as the operation can be done without shock to the patient.

Phthisis and renal disease are best treated on medical lines during pregnancy, and the labour conducted as for cardiac disease. It used to be thought that Caesarean section was indicated for heart disease and tuberculosis in pregnancy, but in my experience, and in that of many others, this operation is attended by a fatal issue within a few weeks in the large majority of cases. Severe Graves's disease may occur in the early months of pregnancy. This should be treated; when in nearly every case the patient will be carried on to full term. There are rare instances where the patient is rapidly going downhill after treatment for a month. The doctors must then decide if the pregnancy should be terminated, and if this is necessary it should be done after permission has been granted; this step, however, is seldom essential.

The Last Three Months of Pregnancy

We must now consider the question when the child is viable. Hyperemesis may occur in these months, but the situation is different, for there is no bar to termination of the pregnancy after appropriate treatment. Such conditions as cardiac disease and phthisis must be treated on medical lines, but if improvement is not taking place induction, not Caesarean section, should be done. The two main conditions which concern us now are disproportion and inertia. We begin by stating emphatically that under no circumstances is it justifiable to perform craniotomy on the live child: this procedure has never been suggested or allowed at the Rotunda Hospital. The ancient fear of killing the patient who had been in labour for some time by the performance of a classical section has gone, and the protagonists of such a dastardly step as craniotomy on the live child have no excuse now; for the lower segment section operation is safer than craniotomy for the mother in most potentially septic cases, and will nearly always end in the survival of the child. I believe I was the first to introduce drainage as part of the technique of this operation in septic cases; this drainage is best carried out by a large tube in Douglas's pouch, brought through either the lower end of the wound or a stab wound in the flank. The greatest care must be taken in walling off the intestines, in changing the gloves after the uterus has been sewn up, and in following other

points in technique. In my opinion there is no excuse whatever for performing a classical section in this type of case, nor is Portes's operation indicated.

With regard to statistics of the lower segment section, there were 122 cases during my Mastership of the Rotunda. Among these there were four dead mothers and three dead babies. The indications were numerous. Some were for potentially infected women, others were for disproportion, fibroids, etc. I do not intend to give an account of the 118 successful cases, but I shall tell of the four failures.

The earliest of these four cases was complicated by fibroids, and occurred in my first year. A mistake was made in technique whereby the whole advantage of the lower segment operation was lost by the removal of fibroids from the back of the uterus. This should never be done. In an infected case the baby should be removed through the lower segment, and the fibroids be left for a future occasion. The two deaths in 1929-30 and 1931-2 happened in cases which were very septic on admission; these patients would probably have died despite any treatment. The babies were alive. The death in 1930-1 was due to sepsis, which was caused by an infective glove powder. I have already reported this occurrence, and, as stated in my reports, I have advised steeping the gloved hands in a spirituous solution of biniodide of mercury before operating. In 1927-8, 1928-9, and 1932-3 there were no deaths following this operation.

Uterine Inertia

Inertia is the bane of the general practitioner and the specialist. I have, for the sake of clearness, divided inertia into primary and secondary, with subdivisions of early and late. By early I mean in the first twenty-four hours, and by late after the first twenty-four hours. It is essential that this point should be emphasized, for the longer inertia lasts the more danger there is for mother and child: this subject is extensively dealt with in Tweedy's *Practical Obstetrics*, which for some time has been under my jurisdiction. Textbooks even confound the terms "primary" and "secondary." The simplest definition is that primary inertia is due to weakness in the muscle from some internal cause—that is, some undiscoverable cause; while secondary inertia has some definite cause, such as mechanical obstruction from disproportion of some kind. The cause of the onset of labour is not known, and until this is discovered the worry of inertia will still exist. I do not intend to dwell much longer on this all-important subject. It is raised because of the title of my paper; for doctors kill live babies more often when inertia is present than in any other condition. The baby is killed by too early or too late intervention. The doctor who thinks he can dilate a half-opened cervix and extract a live baby who will remain alive and healthy will not often get away with it. The doctor who is not able to recognize when to intervene so that the baby can be saved should acquire more experience. In other words, when inertia is encountered the variety must be determined: if there is no obstruction the condition is primary. Psychological treatment, plenty of rest by means of morphine, scopolamine, etc., long hot vaginal douches, absence of intervention, and careful watching for increase of temperature, pulse, and variation of the foetal heart rate must be carried out. The vexed question must be asked, When should there be intervention? When the labour has lasted from two to five or six days, when the temperature especially and the pulse steadily rise, when the foetus shows signs of definite danger, then the lower

segment section with drainage must be considered. Unless the cervix is three-quarters dilated and the head is well through the pelvis, vaginal delivery should not be done; even when carried out in this type of case the cervix will be torn.

Caesarean Section

From what I have said about Caesarean section it might be thought I was a keen believer in the operation. On the contrary, I believe it has done more harm than good. There are many inexperienced practitioners—and among these I include gynaecologists and surgeons who dabble in obstetrics—who know only one way out of a difficult case of midwifery, and that is section. The classical operation is unfortunately a simple one to perform, it allows the consulting specialist to get back to his work in a hurry, it is usually well paid, and if all goes well the patient and her relations are delighted! But a study of large statistical records will show that the death rate from Caesarean section is much higher than that obtained from vaginal delivery. In other words, the man or woman who advises Caesarean section should have a sound knowledge of the mechanism of labour, especially in regard to the action of the uterus. With this knowledge he will often find that a large dose of morphine combined with a thorough rest will to a large extent lower the incidence of the Caesarean operation.

The Use of Drugs

One important point I want to raise now is the use of oxytocic drugs. I have seen more harm than good result from the use of pituitary extract, but in the absence of disproportion, and when the obstetrician has got the necessary knowledge, he may give two to three units of pituitary extract every hour until ten or twelve units have been given, or until the patient is in labour. I would like to state that my teaching in the Rotunda was not to give the pituitary extract until after the placenta was delivered, and this is the safest advice. But, bearing this advice in mind, the experienced general practitioner may have exceptional instances in which he may prescribe as advised, but never in large doses. I have seen seven cases of ruptured uterus admitted to hospital following the injection of large doses of pituitary extract given under wrong conditions.

Even the use of quinine must be mentioned: this drug is not without a modicum of danger, and a foetal heart audible before has been found inaudible after 10 grains of quinine. Such cases are few and far between, but the danger must be mentioned.

The foetal mortality in connexion with placenta praevia is so great that a warning must be uttered. When the child is really viable and there are no contraindications Caesarean section should be done if a live child is not to be destroyed.

If monsters are diagnosed (and this can often be done by means of radiology), should they be destroyed? Luckily, most monsters are not capable of living, and each case must be dealt with on its merits. The ventricle in hydrocephalus is often tapped to allow delivery, and the baby is usually born dead. Further details in the management of these conditions will be found in textbooks.

I hope the title of my paper has not been misleading, for I have used it as a vehicle to discuss some knotty problems, but if I have brought home the fact that the foetus should practically never be destroyed my object has been fulfilled.

A BULLOUS ERUPTION DUE TO SULPHANILAMIDE

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The following is a case report of a bullous eruption occurring after the administration of sulphanilamide.

Case Report

A man aged 49 attended the Pontypridd Venereal Diseases Clinic for the first time on February 8, 1939, with a urethral discharge that began on January 18, following exposure to infection on the 15th. He had treated himself with ol. santali from January 25 to February 2 without apparent effect. He was found to have anterior urethritis, with a whitish mucopurulent discharge; a smear was examined on one occasion but gonococci were not found. Treatment with sulphanilamide, 1 gramme four times daily, was started on February 8. On the 10th he complained of malaise and nausea, and the dosage was reduced to 1 gramme three times daily. The urethral discharge ceased on February 16 and has not reappeared. When seen on February 22 there was slight oedema of the hands and forearms, with a faint morbilliform rash on their extensor surfaces. Treatment was continued, and two days later the condition was unaltered. The patient then defaulted and was not seen again until March 21, when he gave the following further history. On March 1 he stopped work on account of severe swelling and blueness of the face, forearms, and hands, and photophobia and malaise. He took no more tablets after this. On the 3rd blisters appeared on the face, forearms, and hands. These gradually formed crusts, but on the 15th a fresh attack of swelling and blister formation occurred.

On March 21 he was seen to have a profuse bullous eruption on the face, neck, forearms, hands, and trunk. The bullae were round or oval in shape, with clear serous contents, mostly about 1 cm. in diameter; some, however, were 2.5 cm. The lower half of the face was more affected than the upper half, the forehead being nearly clear. The rash was severe on the back and sides of the neck, but did not extend into the scalp or below the collar level. On the forearms the dorsal surfaces were more affected. The backs of the hands were in the same state as the forearms, while the palms showed no bullae but desquamated in large flakes. The rash on the trunk was limited to about a dozen papulo-bullous elements scattered over the lumbar and gluteal regions. The bullae tended to rupture spontaneously and reveal eroded or ulcerated surfaces, which healed quickly, leaving pitted scars. There was no suppuration, and by April 6 only scarring remained. The patient refused admission to hospital for investigation. He works as a gardener in the open air with his sleeves rolled up and wearing a cap. The parts on which the rash occurred were exactly those which are exposed to light, with the exception of the few lesions on the trunk.

Comments

Bullous eruptions due to sulphanilamide are rare, though vesicular rashes have often been seen. A case was reported by Hallam (1939) after the administration of M & B 693, in which the patient had previously received ultra-violet-light treatment, and the rash was more widespread. Tedder (1939) classifies rashes due to sulphanilamide and its congeners into three groups: (1) Eruptions due to sensitization. These are allergic reactions and can be reproduced by administration of a single small dose of the drug (Tedder, Case 1; Schonberg, 1937). (2) Eruptions due to a toxic effect of the drug. These disappear if the