THE OBSTETRICS OF A GENERAL PRACTICE IN THE LAST DECADE*

BY

A. F. MARTIN, M.D.

In all the recent talk in the medical and in the public press about unreduced maternal mortality and morbidity there smoulders very near the surface a fire which could easily be fanned to a flame of spurious indignation against our profession. It is being laid to our door that this blot upon the nation's life has not been effaced in our time. I am convinced that, wherever the blame is to rest, it does not cloak the shoulders of any general practitioner who is worth his salt. If any man brings an enlightened enthusiasm into his work, his results will stand investigation and comparison with those obtained in any institution, or by any system in which the general practitioner is not used, and it may be well, therefore, to examine the practice of the obstetric art as it obtains for most of us in a practitioner's life in the year 1931.

Of 330 consecutive maternity cases (190 primiparae and 140 multiparae) 201 were normal—103 primiparae and 98 multiparae—a two-thirds normality. By *normality* I mean: (1) that these women delivered themselves with no more help than that obtained from anaesthetics or uterine muscle stimulants; (2) that they developed no sustained rise of temperature; and (3) that they displayed no complications before, during, or after confinement. There have been two deaths—one due to embolism and the other to perforated gastric ulcer. It might be thought that one outlet of escape for fatal cases was by way of hospital admission. Two patients in this series were admitted to hospital—one for Caesarean section, and one for uncontrolled diarrhoea in the third week. It has always to be borne in mind also, when looking at his statistics, that the practitioner is the casualty clearing station for the midwives of his district.

USE OF FORCEPS

The forceps rate was 19 per cent., forceps being used sixty-three times. I have taken as the main indication for their use a failure to make progress during half an hour of strong or medium "second-stage" pains. The analysis of these forceps cases is as follows: there were twenty-one cases of occipito-posterior presentation, two unreduced and nineteen after manual rotation to the anterior position had been obtained; fifteen cases where delay occurred with the head in the vagina, past the brim, due to a relatively small pelvis. Pelvic measurements have not revealed disproportion. One is conscious of pulling the head past an obstruction on to the perineum, when the forceps have been taken off, and the labour completed naturally. In one instance the coccyx was hooked forwards, and I fractured it during the forceps operation. There were twelve high forceps deliveries through genuinely contracted pelvis; five cases of delay in pains, and six cases of rigidity of the parts in elderly primiparae. There was one case of failed forceps in contracted pelvis where delivery of a dead child was obtained by internal version. As regards the twelve cases of pelvic contraction, a malign fate overhangs these women in travail, since the infants are often extraordinarily large. These cases all tell the same story—"head high, forceps slipping, and delivery after a tremendous struggle." Seven out of eight babies at full term were lost, whereas five cases induced at the eighth month were satisfactory.

It is natural to meditate over this series, small though it is. I am much impressed by the results of induction at the eighth month. Where the woman is healthy and of average intelligence, and the child is vigorous and of moderate size, we can look forward to a labour free from anxiety, and to a puerperium with a thriving child. It is increasing the risk to postpone the induction; the size

of the passage may be guaranteed, but not that of the passenger. In two cases, on examination with a view to induction at the eighth month, I was tempted to let the case go on for another fourteen days, because I thought I could press the head into the brim. Here I was mistaken; both babies were large, and both were lost at eight and a half months. My feeling is strongly that for a safe induction there should be no delay beyond the end of the eighth month. In all the five cases induced at the eighth month the children have lived, but those left later have given trouble.

As to the value of external pelvimetry, I have been disappointed. Where the intra-spinous and intra-cristal diameters approximate, the information is very useful, because one is forewarned. This was so in two of these cases, but in two others I was definitely led into a state of false security by finding no disproportion. Dr. Blair-Bell, lecturing once under the auspices of the British Medical Association, gave a very informing account of minor pelvic deformities. Most difficult forceps cases, he maintained, were due to relatively small pelvic disproportion. I have since carried out external mensuration in every primipara. I cannot detect these cases of minor degrees of small pelvis by pelvimetry; they have been diagnosed by the feeling, during extraction, that the head had to be dragged past an obstruction when below the brim.

Even in these enlightened days one meets, alas! every now and then, a case of full-time confinement with obstruction at the brim, necessitating a high forceps operation. I know no more anxious situation, calling for all the judgement, grit, determination, willingness to take risks, and the use of all available physical strength. One cannot launch one's barque on the seas of operative surgery without taking risks, but one cannot launch out on to the sea of high forceps midwifery without getting on to the rocks! The feeling of anxiety is to me more acute during a high forceps operation than when I am doing a major surgical operation. The contrast in the fee recognized as adequate in both cases is nothing short of ludicrous! I have lost only one mother from embolism, as related; this favourable result I attribute to careful chloroform dosage. These obstructed cases require much deeper anaesthesia than the unobstructed cases, but the dosage can be regulated so beautifully by using a Junker inhaler that the collapse consequent upon long, deep chloroform anaesthesia is not so severe. During the later years my practice has changed. Whereas in my earlier cases I set my teeth, and tried to make the best of a bad job, later I have inclined towards induction at the eighth month. I have set myself resolutely against the practice which formerly held of trying to bring off at term doubtful cases with a reduced conjugate diameter. But even where forceps have failed, when a surgeon knows the character of his general practitioner, and can vouch for forceps having been applied with due antiseptic and aseptic precautions, he should not shut the door of escape from this terrible impasse by means of surgery. Antiseptic practice has improved out of all knowledge, and the surgeon should remember that in refusing to operate in a failed forceps case he is condemning an unborn child to death, and calling the mother to submit to risks far greater than those of Caesarean section as we know them nowadays.

OCCIPITO-POSTERIOR PRESENTATIONS

This event is so common, and the results of bad treatment and wrong diagnosis are so disastrous, that all our obstetric acumen should be in use when we are dealing with an occipito-posterior case.

In the first place we know little about the cause. Why should one baby lie one way round, and the next the other? I feel that some slight degree of pelvic disproportion is present much more frequently in occipito-posterior than in occipito-anterior presentations. I have notes of forty-eight occipito-posterior cases; of these seven showed some greater or lesser degree of pelvic deformity, and I suspect that there were others in my earlier cases.

* Abstract of a presidential address to the Bradford Medico-Chirurgical Society, October, 1931.

As regards the diagnosis, I have found as a rule the easy palpation of the large rhomboidal anterior fontanelle an authoritative guide. When the case has been left too long, help from sutures is not present. When the sutures fail, abdominal palpation is usually negative, because the uterus has by then attained a state of tonic spasm which obscures the feel of the knees and elbows. To make the diagnosis certain at this stage, one must give an anaesthetic, introduce the hand into the vagina, feel the nearest ear, and thus get the lie of the occiput. Then, of course, treatment is begun immediately. Full surgical anaesthesia is required, and the impacted head is pushed up until it is freely movable. Then, being well held by the fingers, it is definitely rotated until the occiput lies anteriorly, the body of the child being rolled round by the shoulders with the other hand. The occiput will not maintain its anterior position unless the rotation of the body has been very efficiently managed. I am never quite certain of this, and so I hold the head in its new position for as long a time as it takes for a full cubic centimetre of pituitary extract to exert a good contracting influence on the uterus. When the pains begin, and the head is forced down, it will stay anteriorly. Thus quite a good proportion of occipito-posterior presentations are treated without loss of time, and without the application of forceps. I have notes of twelve such deliveries, one of them being particularly interesting in that the brow was presenting with the occiput posterior. The whole presentation was changed by hand, flexion being obtained, and delivery secured without forceps.

In fourteen cases the head rotated naturally; when there is free movement of the head, the obstetric anaesthesia used is that form described later, and it is interesting to watch the natural rotation taking place with the patient asleep. I think the absence of nervous apprehension and of consequent spasm has a good deal to do with this happy result. Forceps were used immediately after rotation in fifteen cases. In two of these, early in the series, rotation had not been maintained, and they were delivered unreduced; in six others forceps were applied after the head had been held with the inserted hand without pains coming on effectually.

To sum up, in 330 cases there were forty-eight occipito-posterior presentations: fourteen rotated naturally; twelve were rotated manually, and were delivered without forceps; and nineteen cases had a forceps delivery after rotation (two unreduced). In seven there was definite pelvic contraction. In one of these I could not hold the rotated head either by hand or forceps, and a dead baby was born by internal version; this is the only case for many years where I failed to secure delivery after rotation, and the presence of a deformed pelvis here does not negative my conclusions.

LESS FREQUENT ABNORMALITIES

There were nine breech presentations in this series, with seven live babies and two dead ones. In three cases there was marginal placenta praevia, with one smart haemorrhage. Even then it is always safest to put the patient deeply under an anaesthetic, to insert the hand into the vagina, and to feel for the placental edge. In treatment, I am partial to the use of a de Ribes bag. There is no need for great alarm at a single violent bleeding. In the case of a member of my own family, who lived in a small country town, the doctor diagnosed partial placenta praevia, plugged the vagina, and sent twelve miles for a surgeon, who performed Caesarean section in the patient's bedroom. I think she was too heroically treated, for her morale was shaken, and she never indulged in another pregnancy. It is easy for surgeons and practitioners to overlook this aspect of the situation. Very early in practice, before I began to take systematic notes, I saw two cases of central placenta praevia; both patients died, one too quickly for any help to be given her. Perhaps Caesarean section would be helpful here, but in a marginal placenta praevia it is poor practice. Either the quick application of forceps or the bringing down of a leg should meet the case after sufficient dilatation.

MATERNAL MORTALITY

The question of maternal mortality and morbidity is in all our minds. In this series of cases the death of the mother has occurred twice, and in neither case could I blame myself. One death was in a case of contracted pelvis, due to embolism, due in its turn to wounding the placenta with a bougie. Another was in the case of a deformed pelvis, where the midwife had called me in late, in the third day of labour. The woman was in severe abdominal pain. I put it down to uterine clonus, and immediately gave her chloroform. The presentation was of the impacted occipito-posterior kind. The difficulties were eventually overcome by rotating the child, and applying forceps again. The next day the woman was vomiting, and had a distended abdomen. She died on the fourth day, and I thought there might have been a ruptured uterus. I obtained leave to open the abdomen, and found general peritonitis due to a perforated gastric ulcer. The uterus had a black, bruised appearance, but was not more septic than the remaining abdominal contents. One patient ran a temperature of 104° for four days, and no signs of infection developed. There is no doubt that some women are capable of infecting themselves.

MORBIDITY

In 330 confinements there have been those two deaths (one unavoidable) and six cases of puerperal fever; four of these occurred in nursing homes, and I do not hold myself responsible for them. Three cases of pyrexia were definitely due to auto-intoxication from faecal accumulation; four other various unimportant cases occurred. In many cases on the tenth to the fourteenth day a vaginal examination has been made to ensure that the uterus is left in a condition suitable for as perfect involution as possible. In my last 130 cases, which have been carefully examined, I have found seven instances of retroversion, and in six replacement was successful; in the seventh the provision of support in position by a watch-spring pessary was required to remedy the defect. My explanation of this rather common event in first labours is that it is an early symptom of want of tone in the uterine muscle, showing that subinvolution is liable to be present, and is an indication for a course of ergot. An estimation of the relative closure of the os should be made at this examination.

OBSTETRIC ANAESTHESIA

There have been 156 cases in this series where I have employed an obstetric anaesthesia. This has helped to obtain a low interference rate, and a high proportion of normality. In 148 cases the result obtained has been good, a more or less complete forgetfulness of the pains ensuing. In eight cases only did a partial amnesia follow. The technique I employ is that detailed by me at the Glasgow meeting of the British Medical Association in 1922.

For some reason which is not explained yet, the pregnant woman is peculiarly tolerant of, and responsive to, chloroform, and he must be a clumsy artist indeed who succeeds in administering an overdose. Particularly is this the case if a Junker inhaler is always used in obstetric practice. Most women are kept sufficiently under with a surprisingly small dose of chloroform given in this way; the average amount is 1 drachm each half-hour. The mask is tied with an elastic band round the face, and the chloroform is pumped with the left hand, leaving the right hand free for examination and other work. The chloroform administration is stopped between the pains, but begins again as soon as the uterus is felt beginning to harden. In this way, if the pains are kept going with fractional doses of post-pituitary extract (never more than 0.5 c.cm. being advisable at a time), the patient has passed in about twenty minutes into a state where she is subsequently forgetful of the pain, but is still able to bear down partially to her pains, and to keep reasonably quiet on the bed. She should never lose her reflex, nor breathe stertorously, but she often does lose some control of her own efforts. This is more than made up for by the increased involuntary effort of the pituitarized uterine muscle, and the relief from spasm which is

such an obstruction in the early stages of many confinements. No mothers have died in this series; three babies died, and in every case there has been sufficient cause to explain their death without blaming the anaesthesia. The period of anaesthesia has ranged from half an hour to six hours, but this is, of course, exceptional; it has often lasted three to four hours. Anaesthesia is induced late in the first stage; the chloroform will often relax the spasm of the os, and makes digital dilatation of the cervix a possible and frequent procedure. The chloroform also prevents, by its inhibitory action on the uterine muscle, the bad splitting of the cervix, which might be expected from the use of the pituitary preparation earlier in labour than is usually given.

In this series of 156 anaesthetized cases forceps were applied twelve times: once for restlessness; twice for delay on the perineum in elderly primiparae; three times for delay in the vagina, probably due to small pelvic outlet; and six times for occipito-posterior presentations. The anaesthetic has been used in all cases indiscriminately, and without any regrets. Very rarely, the baby has been apnoeic for a little while after birth. This method has given me far better results than the scopolamine-morphine method, which I used before, and for a little while after, the war. The disadvantages of the latter in private practice are many; the most serious is that unless begun at the right time it is not effective, whereas the chloroform and pituitary method can be started at any time after some dilatation has occurred. I have notes of twenty of my latest scopolamine cases; thirteen were successful and seven were not successful in obtaining good amnesia. The time entailed in attending a primipara under scopolamine precludes its systematic use outside an institution.

As regards the pituitary dosage, the first dose is given (0.3 to 0.5 c.cm.) as soon as the chloroform has begun to exert its effect, and is repeated every half an hour or so, when the pains are judged to be slackening again in intensity. It is safe to give as much as 3 c.cm. of pituitary extract in consecutive doses to one patient; Dr. Blair-Bell kindly wrote to me advising me of this fact. When a longer anaesthesia is necessary I use femergen after the 3 c.cm. total has been reached; it is slower in action, but lasts longer, and I have found no increase in the blood pressure after its use.

POST-PARTUM HAEMORRHAGE

I have seen very little of such haemorrhage; one patient lost three quarts of blood in a twin confinement, with double forceps operation, there being delay due to a hooked coccyx. The real absence of haemorrhage is all the more remarkable in that most of the opponents to obstetric anaesthesia use the argument that tendency to it is engendered sufficiently to cause increased danger. I can only say that in 156 cases, some of extreme difficulty and duration, I have not experienced it.

STILLBIRTHS AND NEO-NATAL MORTALITY

I have lost seven babies in eight high forceps cases; in the case of one born dead at term the loss could be attributed to fright of the mother. As the result of albuminuria I had three dead babies among ten gross albuminuric cases. Two infants perished owing to abnormalities of the cord; in both they were white and pulseless. Both were anaesthesia cases, and so had had rather more deliberate delivery than otherwise. One child had so short a cord that the nurse had to hold it close to the vulva while I was applying the ligature, in order to ensure that there was no traction on the placenta. We calculated that the cord was only 8 inches long. In the other case the cord was wound three times round the child's neck. In both these cases the uterine contractions were very inadequate, and but for pituitary medication, the labour would have been exceedingly long. I am of opinion that unsatisfactory pains—so-called uterine inertia—often indicate the presence of some serious abnormality; the uterus is reflexly on its guard, and I have seen the same phenomenon in occipito-posterior cases. I would say: Always be on the look out in cases of unsatisfactory contraction. A third case of short cord very much

misled me. I induced labour at the end of the eighth month because I could feel the head on the left side of the abdomen, and could not get it to enter the pelvis. The child was born unexpectedly early the next day, much to my surprise, although I had known the measurements were normal. The cord was again, in this case, wound three times round the child's neck, and this had prevented the head from entering the pelvis.

I have had a total of fifteen neo-natal deaths or stillbirths in 330 unselected maternity cases. The causes of death within the first few weeks have included convulsions (one case) at the third day, and prematurity with a 50 per cent. death rate. Cases of prematurity have been due to a "nervy" uterus; breech presentation; a case where myomectomy had been done; pneumonia; inanition in the dwarf. In nine cases of twin confinements, two babies were born dead, and seven others died within a week. Three women have borne deformed children, two on more than one occasion; both these have had endometritis. Abnormalities in the development of the foetus must often depend on the unhealthy state of the uterus in which they lie. Athleticism and motoring are of no advantage to our present-day mothers.

THE DISEASES OF PREGNANCY

I have had ten cases of gross albuminuria, in which treatment seemed to be ineffectual. Degeneration of the placenta was found in most of these cases, and on two occasions a degenerate amnion was seen. Three times heredity figured in the history of the mother. Eclampsia I have not encountered in the last twenty years, and have not heard of it in my neighbourhood for a long time. I had one case of severe chorea in a twin pregnancy; both babies lived. In one case of jaundice, lasting seven months, treatment was useless; the patient had an obstetric anaesthesia, and was asleep for six hours, taking 14 drachms only of chloroform, and requiring 4 c.cm. of pituitary extract. She passed coloured stools for the first time for seven months on the fourth day, and has had a normal pregnancy since. I can also recall one case of mania; after returning home, this woman committed suicide. Six patients were subject to mitral disease; three showed no sign of upset, and three did, but all did well. As regards surgery during pregnancy, one patient had two laparotomies performed, the first for an impacted retroverted uterus which I could not release, and the second for a small intestinal obstruction owing to adhesions of the bowel to the abdominal scar. She proceeded to term and did well. In another patient, I had performed a ventrifixation for a retroflexion three years before; she had a normal confinement.

A case of previous myomectomy has been mentioned, as has also a case of perforated gastric ulcer which I did not diagnose.

The report of the St. John Ophthalmic Hospital, Jerusalem, for 1931 shows that the number of in-patients was 1,169 and of new out-patients 18,984. The total attendances were 75,423 and the number of operations 2,911. The incidence of trachoma among out-patients was 89 per cent., and the number of patients who were blind in one or both eyes was 2,363, or 12.4 per cent. Nearly 70 per cent. of this blindness can be traced directly or indirectly to acute conjunctivitis, and the new annexe, which was built for the care and treatment of this disease, has more than justified its cost. During the ophthalmia season (July to December) there were 20,000 consultations. At times over 200 patients, many of them with their families, slept there, and the nightly average of inmates for the season was over one hundred. The subway which now connects the annexe with the hospital will permit of the accommodation of the hundreds of trichiasis cases which flock to the hospital from March to June. After operation in the hospital they can be sent safely into the cloisters of the annexe by way of the underground passage. The six clinics under the supervision of the hospital surgeons—at Acre, Beersheba, Gaza, Nablus, Ramleh, and Tul Karem—show substantial increase in their work over 1930.