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Abstract

I awoke and it was a dream. This has encouraged me to share with you the joys of a peripatetic obstetrician who spent more than 40 years practising obstetrics when obstetrics, particularly operative obstetrics, truly was an Art. Sadly this is no longer the case, although one could, if one had the necessary experience, still practise this kind of obstetrics in a developing country where the patient would bless you for having saved her child and for having preserved her from a feared Caesarean section. It is almost impossible to convey the sense of achievement, joy and wonder when, bathed in sweat, after a difficult rotational forceps or breach delivery, one stands gazing at a new creation and shares with the parents their varying emotions.

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The Rise and Decline of Operative Obstetrics Or, The Joys of a Peripatetic Obstetrician

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My wife was giving birth to twins in one of the most prestigious London teaching hospitals. The first had been safely delivered and we awaited the birth of her second. "Hadn't you better get on with the other?" I said after about 5 minutes. "Check the lie and rupture the membranes or something". "Certainly not", was the reply. "Your consultant is one of the most famous in the country. He has had 102 publications and the meta-analysis convincingly shows that awaiting the resumption of labour is by far the safer plan". I sat on disconsolate. Finally after about an hour there was sudden activity. A trolley arrived and the labour ward sister informed me that it had been decided that my wife should have her second twin delivered by Caesarean section. "Fools, vagabonds, swine," I yelled as I was dragged away, protesting, by two burly porters.

I awoke and it was a dream. This has encouraged me to share with you the joys of a peripatetic obstetrician who spent more than 40 years practising obstetrics when obstetrics, particularly operative obstetrics, truly was an Art. Sadly this is no longer the case, although one could, if one had the necessary experience, still practise this kind of obstetrics in a developing country where the patient would bless you for having saved her child and for having preserved her from a feared Caesarean section. It is almost impossible to convey the sense of achievement, joy and wonder when, bathed in sweat, after a difficult rotational forceps or breach delivery, one stands gazing at a new creation and shares with the parents their varying emotions.

I entered the Edinburgh Medical School in 1948, in the last of a batch of ex-service men, when the new National Health Service was just beginning. The obstetric lectures in those days concentrated very largely on the mechanisms of normal and abnormal labour and the convolutions which the foetus went through during its passage to the outside world. These struck me as entirely rational, unlike much of medicine which we were then taught. It endeared the subject to me, so much so indeed that I wrote

my Dissertation to the Royal Medical Society on an obstetric topic.

My appetite was further whetted when I did my normal deliveries (20 required in those days) in the Rotunda Hospital, Dublin. The teaching was good, but, after two deliveries in the hospital, all others were carried out on 'District' in the slums of Dublin. One experienced student would be sent out with one just starting his apprenticeship and, once there, they had to remain with the patient until she was safely delivered, the placenta was examined and risk of post-partum haemorrhage negligible. In those days the teaching was strictly "hands off the cord," and one waited until one thought that the cord had lengthened and the uterus had contracted and risen before using the uterus itself as a plunger to push the placenta out of the vagina. Now, as students, we found this waiting for completion of the third stage particularly irksome, especially as by this time we were usually tired and hungry. I had never heard of Brandt1 or Andrews2 who had written earlier about a method which, several years later, was to be developed into the system now used today and known as 'controlled cord traction.' I reasoned, however, that if the uterus were well contracted and I pulled on the cord, it would usually deliver the placenta, with less pain for the patient and with greater speed and satisfaction for myself. I found that it worked well and, when my final obstetric viva came round, and I happened to be asked about 'conduct of the third stage of labour,' I had great pleasure in telling my Professor how I thought the third stage of labour should be managed. Sadly he did not agree with me and suggested that I should return in a few months to "resit the Final Examination!"

I finally passed and, after general medical and surgical house appointments, I proceeded to Bangour General Hospital in West Lothian. There, under the able tutelage of the late Dr Janet Worling, who, at that time, was Senior Registrar, I began my apprenticeship in Obstetrics in earnest. We are talking about operative obstetrics so I shall confine my discussion to this aspect of the subject, but will not describe the destructive operations which were still required from time to time in those days in cases of gross foetal abnormality, before ultrasound, amniocentesis and specialised laboratory investigations were available.

I learnt to determine head position by digitally examining the sutures. I became adept at giving chloroform anaesthesia with rag and bottle but, best of all, Janet Worling was magnanimous in allowing her Housemen to perform all the abnormal deliveries. This, for me, included at least twenty manual rotations and Haig Ferguson forceps deliveries. I learnt to grip the head by the narrower bitemporal diameter, to use the right hand for right occipito-lateral positions and the left for left occipito-lateral positions. I learnt to use the spare hand abdominally to assist the rotation by exerting pressure on the anterior shoulder, and to prevent the foetus from rotating back to its original position until ready to apply the first forceps blade, which is done with the rotating hand still in situ.

Assisted breach deliveries by the Housemen under Janet Worling's supervision also took place from time to time. Although I modified her method of allowing the breach plenty of time to descend before commencing the delivery at a

later date, in that I subsequently considered a very slow descent of the breach in the second stage of labour as indicative of borderline disproportion and, therefore, unsuitable for vaginal delivery. Nevertheless, after a year with her I had successfully delivered some eight or nine singleton breaches by myself without loss. She also introduced me to the art of internal version and, during my time at Bangour, I carried out three internal versions for prolapsed cord, also without foetal loss. This gave me tremendous confidence with any intra-uterine manipulation, for I learnt to identify the foetal spine and to distinguish the foot from the hand by feeling the heel. Obviously such manipulations required the presence of liquor amnii, although uterine relaxation could be achieved with chloroform.

After a further year spent at the Samaritan Hospital in London engaged in gynaecology I proceeded to Queen Charlotte's Hospital where I shall forever be indebted to Mr Joe Holmes, the Resident Obstetrician, who taught me to use Kielland's forceps. Although I could use manual rotation confidently, nevertheless I could not guarantee a perfect application of the forceps blades every time, particularly if I was rotating a persistent occipito-posterior, for there was always an urge for the head to rotate backwards when the forceps blades were being applied. Much has been written about the risk of Kielland's forceps producing horrific tears. I have never had any, which I attribute to the fact that I have always paid strict attention to the way the blades are applied:

- After catheterization first assemble the blades with the indicator buttons and pelvic curves facing the occiput.
- Then take the anterior blade and insert it into the vagina below the brow until the fenestration has disappeared from view whilst, all the time, keeping the handle pressed against the patient's opposite buttock.
- Thirdly, while keeping the leading edge of the blade tilted slightly towards the foetal skull, wander the blade over the brow (while still keeping the handle of the forceps pushed as far laterally as possible) until it sits snugly over the temporal bone of the foetus. Although many

student obstetricians find the application of the anterior blade difficult, in fact, if done properly, it is very easy.

- The posterior blade is the difficult one to apply. To achieve this insert the left hand and fingers in the hollow of the sacrum, and move them slightly to the left and upwards until the finger tips are above the sacral brim in front of the patient's right sacro-iliac joint. Next insert the posterior blade over the hand and fingers, which protect the maternal soft tissue from trauma, and then jiggle the posterior blade to the midline until it locks with the anterior blade. There may be some apparent asynclitism but, since it is a sliding lock, this can easily be corrected.
- Next depress the forceps handles until they are at an angle of 60° to the floor and slowly rotate the forceps by gripping the forceps handles at their proximal shoulders. The rotation can be made easier by grasping the whole handle between the proximal and distal shoulders with the other hand provided you insert the middle finger between the two handles to avoid compressing them.
- All these manoeuvres should have been performed between contractions.
- Check that the leading edges of the forceps blades are below and parallel to the lambdoidal sutures and you are ready to deliver the patient. You can now perform your episiotomy which needs to be a generous one.
- With the next contraction, or sooner if there is foetal distress, while keeping the handles initially at 60° to the floor you can exert traction on the proximal shoulders of the forceps, and I stress again, do not compress the handles between the proximal and distal shoulders.
- As descent occurs the hands will rise and, just before crowning, the blades can be removed and one hand used to deliver the head by grasping it in the bitemporal diameter while the other hand guards the perineum.

My Registrar appointment at the Whittington Hospital allowed me to become expert in all types of delivery without the need for supervision which I had had as a Houseman and Senior Houseman. Thus I became as adept at bringing down a posterior arm as in performing Lovset's

Manoeuvre for delivering extended arms in breach deliveries and in using the Mauriceau-Smellie-Veit Method as an alternative to forceps for delivery of the after-coming head. In both of the latter cases however I prevented the head from popping out too quickly by using an assistant to exert pressure on the brow if the former method were employed or, if I was delivering with forceps, I would complete the delivery by grasping the forceps where they locked with one hand while exerting pressure on the foetal brow with the thumb of my free hand. In this way I was able to deliver breaches sufficiently expeditiously to prevent asphyxia but sufficiently gently to avoid tentorial tears and intracranial haemorrhage.

Delivery of the second twin also engaged my attention and I found that if it presented by the breach it was best and most safely delivered by immediate breach extraction, if transverse by internal version and breach extraction, and if presenting by the vertex, rupture of the membranes alone would sometimes suffice. If however contractions did not speedily resume syntocinon could be given or, alternately, internal version and breach extraction could be employed, although in these cases if most of the liquor had drained away, general anaesthesia and uterine relaxation obtained with halothane was advisable. Unlike cases where chloroform used to be used, some degree of post-partum haemorrhage often occurred, but this usually ceased once the halothane had been discontinued. As noted previously this type of intra-uterine manipulation intrigued me and I wrote a paper on its utilisation at Queen Charlotte's Hospital over the preceding 25 years³. I also dealt with no less than three cases of monoamniotic twin pregnancy during my time at the Whittington Hospital4.

The Ventouse was beginning to be used during my sojourn at the Whittington and, although it never endeared itself to me, I found it useful to augment contractions in cases of foetal distress in the first stage of labour to rapidly obtain full cervical dilatation. On one occasion, when I thought the membranes were ruptured, I employed this method and achieved rapid

dilatation of the cervix and delivery of an unmarked infant. The membranes, as a matter of fact, were intact and I had used the membranes of the forewaters as a metreurynter. The Senior Registrar considered that it warranted further research⁵ and it gained us the Whittington Hospital Research Prize for that year.

Finally, I also taught myself to apply the anterior blade of Kielland's forceps by the classical method so that I had this in my armamentarium should I ever come across a case where I could not apply the blade by the wandering method.

I am also grateful to the Consultants, the late Mr John Marshall Scott and Mr Richard Law, for encouraging me, when there was a real emergency, such as a ruptured uterus with the tear extending into the broad ligament, to immediately perform Caesarean hysterectomy without wasting precious minutes in trying to obtain their permission, something which nowadays, sadly, would not be acceptable. This reminds me of a telephone call I had two or three years ago from a Registrar in a famous London teaching hospital when I was still engaged in private obstetric practice. He had read a case report I had written about a patient with placenta praevia percreta whom I had managed safely a few years before where, besides Caesarean hysterectomy and repair of the bladder, I was forced to ligate both internal iliac arteries because of continuous heavy bleeding6. "And how did you get on?" I asked eagerly after I had answered many of his questions about a similar case of his. "Oh, the woman died," he replied ruefully. These tragic events are likely to become more common, even if the labour wards of our country are manned by inexperienced Consultants.

This then was the type of training and experience which one was likely to obtain in good obstetric departments in the United Kingdom in the 1950's and 1960's when operative obstetrics had reached its zenith. There were, of course, many where the training and teaching left much to be desired and, unfortunately, the quality of obstetric care is judged by the lowest common denominator. The result is that, in this litigious age in which we now live, the only 'safe'

abnormal delivery, apart from simple 'lift-out' forceps, is Caesarean section. Even in the best obstetric departments, of course, one can see in hind-sight that, in certain circumstances, Caesarean section would have been the better option. One remembers particularly cases where women with occipito-posterior positions were allowed to labour for 48, or even 72, hours before being delivered by rotation and forceps extraction, sometimes still with a rim of cervix persisting. Such women were often so mentally traumatised that they never embarked upon a further pregnancy. The elderly primigravida was another case in point where Caesarean section was often the better option, while delivery of the breach with borderline disproportion was fraught with risk. For the latter scenario I subsequently developed a 'trial of breach' where I considered a prolonged first stage or delayed descent in the second stage of labour as indicative of disproportion.

When I moved to Iran I had full scope to practise the type of obstetrics which I loved. In the University of Isfahan one frequently had to deal with cases of ruptured uterus where the foetus was dead, and where the woman might have travelled on the back of a donkey for two or three days from a remote village after the local 'handy'



Figure 1. Lateral radiograph. Reproduction poor but showing characteristic osteomalacic sacral deformity.



Figure 2. Radiograph showing anthropoid brim of woman who had an engaged brow in the second stage of labour.

woman had failed to deliver her. Such women, sadly, nearly always required Caesarean hysterectomy and it amazed me that I never lost such a patient, for blood was not usually available, unless supplied by a relative. These Iranian peasant women tolerated shock and degrees of anaemia which would have killed their European or American neighbours.

Osteomalacia, too, was common in those children and young women who had spent their developing years in dark, dusty factories making Persian carpets. Such women nearly always required Caesarean section, which was usually rendered difficult because the shape of the pelvis caused extreme dextro- or laevo-rotation and obliquity of the uterus ⁷(figure 1).

The ancient art of Braxton-Hicks⁸ bipolar version was also used by me on three or four occasions in the second trimester where patients were bleeding heavily on account of major degrees of placenta praevia. Blood being unavailable and hysterotomy not wanted, I inserted two fingers through the cervix and placenta, and by careful manipulation with these, aided by external manipulation of the foetus with the free abdominal hand, I succeeded in grasping a foetal foot and pulling it out through the placenta, cervix and vagina. To this I would then attach a 0.5 kg weight. The half breach thus sat on the placenta and compressed it, bleeding ceased, labour commenced and three or four hours later the foetus and placenta would be

delivered. The baby was usually dead or succumbed shortly after birth for in those days it was pre-viable. However, the woman's life was preserved and she had retained an intact, healthy uterus⁹.

In Iran, too, my wife, Dr Roxana Chapman and I came across the first cases of Asherman's Syndrome or uterine synechiae which we had seen, caused, usually, by over-vigorous post-partum or post-abortal curettage, and presenting as secondary amenorrhoea. Diagnosis in those days was confirmed by hysterography; but division of the adhesions with sound or curette was less successful¹⁰.

Moving later to New Zealand to establish an obstetric department in the hospital of a new town I had plenty of scope to practise good operative obstetrics and to save the patient, either from the hands of an inexperienced general practitioner, or from an eighty mile drive to the nearest obstetric department in a large city.

It was there too that my wife and I saw some cases which later stimulated us to write a paper on 'Premonition of foetal death', for we were able to show that a few women whose waking and sleeping hours centred around what they thought would be the death of their developing foetus actually did loose their unborn child. We were able to show that, in a very few carefully selected cases, the promise of elective Caesarean section just before term resolved the situation and provided them with a live baby¹¹.

Three years later we moved across the Tasman Sea to Sydney where we remained practising obstetrics (as well as gynaecology), privately, until the end of 1986. I was very busy performing about 250 deliveries a year and it was a joy to see many of the same patients year after year for their second, third or even fourth deliveries. The litigation plague had not reached Australia when we were there and I was able to show that secondary brows could be safely delivered by Kielland's forceps rotation and extraction and, by obtaining post-partum X-Ray pelvimetries with antero-posterior, brim, lateral, and outlet views, I demonstrated that they all had long oval

or anthropoid brims and that labour had commenced with the foetus presenting in the occipito-posterior position¹² (figure 2). One also saw abnormal cases from time to time in Australia, as well as New Zealand, which taxed one's ingenuity, and which were of sufficient interest to report^{3,13-15} (figures 3 & 4).

We also collected many more cases of Asherman's syndrome in New Zealand and Australia, and had our first successes in treating such patients, in that they not only resumed normal periods but that some subsequently became pregnant. Thus we were able to show that it was of world-wide distribution and not confined to developing countries, as had been previously taught¹⁶ (figure 5).

We returned to the United Kingdom in 1986 where I still maintained a private obstetric practice until about three years ago. Due to the fact that medical insurance refused to pay for obstetric confinements unless there were definite complications, most British patients preferred to use the National Health Service so most of my patients came from overseas. My greatest success was in presenting an Indian Minister's wife with a live child after she had had four pregnancies, no living children and a ruptured uterus on two occasions. I kept her at rest in bed from the 18th week onwards and had weekly and, later, twice weekly oblique ultrasounds to show the width of the lower segment at its junction with the bladder. It is likely that slight dehiscence occurred at the 20th week, but thereafter nothing



Figure 4. Monoamniotic twin placentae with cord entanglement and true knot in one of them.



Figure 3. Triplet placentae with papyraceous twins attached.

untoward happened until the 31st week when a very large deficiency became obvious. I carried out immediate Caesarean section and delivered a live child who was lying in an intact amniotic sac which bulged through a hole in the uterus the size of a foetal head. I had taken the precaution of giving the mother weekly injections of dexamethasone from the 25th week onwards and I was happy to see that no respiratory complications occurred in the neonatal period¹⁷. Three years later the mother came to England for a holiday and brought her daughter to show me

We had several more cases of Asherman's syndrome after returning to England and were able to show that two-stage hysteroscopic laser treatment of severe cases, where three- quarters, or more, of the uterine cavity had been obliterated by adhesions, allowed such patients once again to conceive and have live children¹⁸. My wife,

Dr Roxana Chapman, is the laser surgeon and bears the credit, I merely subsequently delivered them.

I continued to practise obstetrics, as I had always done, until I retired two years ago, not listening to purveyors of doom and, fortunately, was not involved in litigation. One interesting case which I remember was an abdominal pregnancy which masqueraded as an ovarian malignancy¹⁹ (figure.6). My last



Figure 5. Opened uterus exhibiting a very thick fundal synechia.

Kielland's forceps rotation and extraction was performed on a westernised Arabian Princess who was highly delighted with the outcome. I should add that, for the last 30 years, I have performed all my Kielland's rotations and deliveries under pudendal nerve block, unless the patient happened to be under epidural anaesthesia at the time, and no patients have ever complained to me of pain in association with this type of anaesthesia.

The only vaginal complication which the modern obstetrician is likely to come across, and

where advances have been made, is in the management of shoulder dystocia. Those interested should read the excellent monograph on this by O'Leary²⁰.

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Figure 6. A 7cm diameter haemorrhagic mass containing placenta, gestational sac and a 3cm embryo unidentified by preoperative ultrasound.