

MANAGEMENT OF OBLIQUE LIE IN LABOUR A PLEA FOR LIBERALISATION OF INDICATIONS FOR CAESAREAN SECTION

by

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Shoulder presentation or oblique lie is always a timely subject despite the rarity of its occurrence, because of the changing concepts and improvement in the management of this form of dystocia. The stratagem, a generation or more ago, was to plan upon an internal podalic version and extraction. The adjuvant procedures like Vourhees bag etc. were intended to prevent the premature rupture of membranes so that the cervix could dilate sufficiently enough, thus providing the optimum conditions for a version. However, the foetal loss was considerable, ranging between 30% to 40%. It is true that caesarean section, in those days, was such a dangerous procedure that it could be performed only in cases of gross foetopelvic disproportion, and, if performed after prolonged rupture of membranes, the uterus was prophylactically removed so as to avoid fatal post-operative sepsis.

At present, caesarean section has become a safe operative procedure, and so in the case of a persistent

transverse lie, with a normal full-term live foetus, a timely caesarean section offers the best alternative to improve foetal salvage.

The purpose of the present paper is to analyse the cases conducted at K.E.M. hospital, with comparative statistics from N. W. Maternity Hospital and make a strong plea for liberalisation of indications for caesarean in this form of dystocia.

Material and Methods

The survey includes cases delivered at King Edward Memorial Hospital between 1959-1961 over a 2-year period, and are compared with those at Nowrosjee Wadia Hospital between 1954 and 1958.

Incidence

There were 25 cases of oblique lie out of a total of 11556 confinements, including those at the two Municipal Maternity Homes attached to K.E.M. Hospital. This gives an incidence of 1:466 deliveries as against 1:202 deliveries at Wadia Hospital. The lower incidence is due to better antenatal care at the Municipal Maternity Homes, which are visited by honorary staff. The incidence quoted from literature varies from 1:150 to 1:600.

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Age and Parity

Six out of the 25 cases were primi-gravidae. At Wadia Hospital 11.5% were primigravidae, while 88.5% were multigravidae. This is due to a much higher number of multigravidae among the general population, wherein the uterus is flaccid. Most of the patients were in the age group 20 to 30 years. This is because the number of deliveries occurring in this age is higher than in other age groups.

Maturity

Fifteen babies weighed $4\frac{1}{2}$ pounds or more. Hence 60% of the foetuses were mature and 40% were premature in terms of birth weight.

Out of these, 20 were alive on admission (80%), while in 5 cases (20%) foetal heart sounds could not be heard. Comparative figures from Wadia Hospital reveal that foetal heart sounds were present in 91 and absent in 126, making a total of 217 cases. This again reflects upon the poor care taken outside and delay in hospitalisation.

The diagnosis of foetal position and presentation was missed on admission

in 4 cases out of 25 and this strengthens the plea for vaginal examination in a late case or in a case where abdominal findings are equivocal and inconclusive.

Course and Complications

Table I enumerates the various complications met with and their deleterious effect as regards foetal salvage. The mortality with premature foetus was 50% and with mature group 33%.

Table II indicates the relation between rupture of membranes and cervical dilatation, with their combined role in perinatal mortality. Premature rupture of membranes with inadequately dilated cervix results in high foetal loss.

Table III emphasizes the rapidly mounting foetal mortality with prolonged rupture of membranes.

TABLE IV
(A) Foetal Mortality

	No. of cases	Deaths	% mortality
Mature	15	5	33%
Premature	10	5	50%

TABLE I
Complicating Factors

Complication	Deadborn	Liveborn	Total	Uncorrected mortality %
Prematurity (less than $4\frac{1}{2}$ pounds)	5	5	10	50%
Prolapse of hand	4	4	8	50%
Prolapse of hand and cord	4	4	8	50%
Prolapse of cord	1	(Occult prolapse)	1	
Placenta praevia		1	1	
Congenital malformation	1		1	
Miscellaneous		Face presentation after external version: Liveborn		

TABLE II
Relation between Rupture of Membranes and Cervical Dilatation

Cervical dilatation at time of rupture	Foetal Maturity			Perinatal mortality		Corrected % mortality	
	Premature	Mature	Total	Premature	Mature	Pre- mature	Mature
Less than half	2	5	7	1 FHS present	3 FHS pre- sent in 1	50%	40%
More than half	4	4	8	3 FHS absent	1 FHS present	10%	25%
Unknown	2	1	3	2	—	100%	0%

TABLE III
Interval Between Rupture of Membranes and Delivery

Number of hours	Foetal maturity			Perinatal mortality			Corrected % mortality
	Premature	Mature	Total	Premature	Mature	Total	
0-4	3	5	8	3	1	4	12%
5-8	2	5	7	1	2	3	26%
9-12	—	1	1	—	1	1	100%
Unknown ..	2	—	2	1	1	2	50%

TABLE IV
*Relative of Mode of Delivery to
Foetal Death*

Mode of delivery	No. of cases	Foetal deaths
Caesarean section	6	Nil
Internal podalic version	13	9
External version	3	1
Destructive operations	2	2
Spontaneous evolution	2	1

Table IV summarises the various factors involved in foetal loss.

Foetal heart sounds were present in 20 cases, out of which 14 delivered vaginally with 5 corrected mortality; and 6 were delivered by caesarean section, with not a single foetal death. It is obvious that prematurity and vaginal delivery after manipulations are attended with highest foetal loss and especially so in the presence of inadequate cervical dilatation with prolonged rupture of membranes. At

Wadia Hospital there were 31 deaths among 72 internal versions with viable foetuses. Even after excluding premature foetuses, this gives a foetal mortality of 34%. The Wadia Hospital series reveals an enormous foetal loss, recording 162 deaths among 217 cases of oblique lie. Excluding 126 cases, where foetal heart sounds were absent or condition of foetus was unsatisfactory as regards prospects of survival, 36 cases remain whose death can be accounted for as due to improper treatment; undoubtedly, too frequent employment of internal podalic version is the cause of high foetal loss.

The higher mortality in primigravida is doubtless due to slower dilatation of cervix and prolonged rupture of membranes.

TABLE V
Effect of Parity on Foetal Prognosis

Parity	Foetal condition on admission			Result		Corrected mortality %
	FHS absent	FHS present	?	Liveborn	Dead	
Primi-gravida	1	5		2	4	60%
Multi-gravida	4	13	2	11	8	24%
				FHS ? in 1	FHS ? in 1	

Hence in the case of a persistent transverse or oblique lie, with a normal full-term foetus, unless one is willing to resign to a perinatal loss of 35%-50%, a timely caesarean section is the only alternative for improving salvage. However, there are a few exceptions peculiar to backward countries like ours. Thus in our hospitals, many patients are admitted to the hospital with the baby 'dead on arrival'. Also in the case of a multipara, the patient is often much farther advanced in labour, and the condition of the baby rendered poorer by the early rupture of membranes, or prolapse of umbilical cord before the obstetrician can take the patient up for delivery. Under these circumstances, vaginal delivery is regrettably the only procedure available. Lastly, there are few cases of malformations not compatible with post-natal survival where an abdominal operation is not desirable.

But it is wrong to presume that a premature baby or a multiparous patient signifies contraindication to caesarean section. Eastman correctly points out that in a baby weighing more than 2500 grammes, the perinatal mortality is 6% in caesarean section. With internal podalic version, the mortality rises to 39%.

When the baby weighed between 1500 and 2500 grammes, the respective figures are practically identical, viz. 9% with caesarean section, and 40% with internal podalic version. Complete cervical dilatation is rare in these cases, and although the incompletely dilated cervix may allow the small shoulder girdle to be drawn through, it often prohibits extraction of the larger and harder head, unless a traumatic degree of force is employed. Thus the birth is arrested after the shoulders have been delivered, and the foetus dies with the cervix gripping the neck. It is only in extremely small babies weighing around 1000 grammes, that one expects a spontaneous delivery in oblique lie, and this occurs either by conduplicate corpore, or more rarely by spontaneous evolution.

Secondly, death of the foetus is not an invariable exception to the recommendation for caesarean section. It is true, that in a good many cases, vaginal delivery is possible with safety, especially if the baby is small. However, if the dead foetus is of average size or larger, and if decapitation promises to be extremely difficult, it is safer to shed one's ego, and also the conventional condemnation of caesarean section. In a neglected

transverse lie, the choice of route of delivery may well be deferred until one conducts an examination under general anaesthesia. A tetanic uterus, with immobile foetal impaction, and the foetal neck beyond reach would then make caesarean section the safest method of delivery, while vaginal manipulation would be attended with danger of ruptured uterus. This is not to outcast the operation of decapitation, but to emphasize its dangers in view of the fact that very few of the obstetricians, who have graduated in the last decade, have ever done a decapitation. Certainly, one need not be averse to bringing forth a mutilated foetus, if one can do so with complete safety to mother—which is highly unlikely in the presence of a tight uterus, a constriction ring, or an average sized foetus in a neglected impacted oblique lie. Hence the obstetrician likewise should not be liable to drastic censure, merely because the caesarean section produced a dead baby or a *teratic* foetus; for in such a case the operation is undertaken solely in maternal interest, and not for foetal salvage. At Wadia Hospital there were 12 destructive operations performed on a dead foetus with transverse lie, between the years 1954-1958. Two out of these 12 operations ended with ruptured uterus, resulting in death of one of the patients. In mofussil obstetrics, such traumatic rupture would mean certain death, even with expert attendance, for there is no facility for blood transfusion and major surgery etc. One is then apt to wonder whether a caesarean section under local anaesthesia would offer a safer delivery; for an expert may find it easier

to perform caesarean section, rather than an elaborate laparotomy subsequently for ruptured uterus with a sinking patient requiring multiple blood transfusions, resuscitation etc.

Thirdly, in the case of a placenta praevia associated with transverse lie, there is an ever present possibility of rupture of uterus. The extreme passive congestion of the lower uterine segment results in a tear like a wet blotting paper, and the tear may well extend upwards. The danger is all the more aggravated in late cases with paper-thin lower uterine segment, and tumultuous uncontrollable uterine contractions.

I would make a fervent plea that, if the indications for caesarean section are to be broadened, this is the right place to start. In the West caesarean section is the operation of choice with four possible exceptions, provided there is absence of major placenta praevia or of extreme pelvic contraction. These exceptions are:

- (1) Complete or almost complete dilatation of cervix, when the patient is first seen in labour.
- (2) Monsters and malformations not compatible with future survival.
- (3) Absence of foetal heart sounds signifying foetal death.
- (4) Pre-viable foetus.

The second of twins, if lying transversely, is an ideal case which satisfies most of these requisites for vaginal delivery.

While recognising the benefits of caesarean section, one should be careful in undertaking the operation when foetal survival is doubtful. A very high incidence would transgress

its maximum benefit. On the other hand, it would bring into prominence the deleterious effects on foetus viz. unexplained still-births, anoxia, hyaline membrane and unexpected malformations. Also with such liberalisation, the mother is bound to be subjected to repeat section. In fact, too frequent caesarean section would vitiate the foetal salvage, owing to loss in the form of antepartum deaths or malformations.

Internal podalic version has a definite place as a means of delivery under exceptional circumstances. To ensure safety, version should not be attempted unless

1. Cervix is effaced or dilatable.
2. Presenting part is displaceable with sufficient liquor and relaxed uterus.
3. Absence of foeto-pelvic disproportion is established.
4. Adequate deep anaesthesia is attained.
5. Experienced operator is available.

It must be emphasized that internal podalic version, especially in late transverse lie, and with placenta praevia is responsible for the largest number of traumatic deaths in labour. The Wadia Hospital series reveals that, out of 160 internal versions performed, there was ruptured uterus in 2 cases requiring laparotomy. There was traumatic post-partum haemorrhage in 10 cases; some of them might have followed incomplete rupture, and in 3 cases cervical tear was visualised. In many cases, a version is followed by extraction even though the cervix is not sufficiently dilated, the resulting rupture being

more due to extraction than to version. This danger together with enormous foetal loss of 30-40% has relegated version to an almost obsolete procedure in those cases where the foetus is living, mature and apparently normal. It should be reserved only for the odd case of a multipara with cervix fully dilated, a relaxed uterus, with a baby not too large—one with sufficient experience would certainly perform a version if there be no foeto-pelvic disproportion and the uterus relaxes sufficiently under proper anaesthesia. As already stated, the second of the twins lying transversely is an ideal case, and to this one might add a case of sudden cord prolapse with living foetus and cervix fully dilated. I want to emphasize its futility in cases which are border-line and with half dilatation, and in these cases with a normal sized live foetus, one should carefully assess the condition of uterus, amount of liquor, the condition of the foetus and of the patient as well as the experience of the operator and the anaesthetist. There is a rapidly mounting foetal mortality in prolonged labour, and after prolonged rupture of membranes. This militates against expectant treatment till version is possible, for dry labour is the inevitable picture by the time cervix is sufficiently dilated to allow version.

Before undertaking a version, the obstetrician must ask oneself not only whether vaginal delivery is possible, but whether it would be as safe for the mother and the child as would a caesarean section. Often the latter question is not heeded to, and moreover the obstetrician is not proficient enough in vaginal manipulations,

thus leading to greater foetal loss. One should not hesitate, whenever a foetus is average-sized and normal, to subject the patient to a caesarean section, unless a trained obstetrician can carry out version with safety, and optimum conditions for version are present.

In late neglected cases one tends to be guided by the general condition of the patient. In rare cases where baby is alive and of average size, caesarean section offers the best solution and may be combined with sterilisation in the case of a multipara. There are many who do not favour caesarean section in a primigravida, arguing that it is not a recurrent indication, and that with caesarean section, there is chance of a repeat section. But this argument does not hold good in the present day when we readily perform caesarean section in placenta praevia even in a primigravida, and still attempt a vaginal delivery at subsequent labour. One should remember the disastrous implications of ruptured uterus following internal version in a primigravida. The death of the foetus may, by some, be considered as negligible, but in the majority of the cases the mother, if she survives, does so with a uterus so irreparably damaged that it has to be removed. In those institutions, which do not have ready access to a well-equipped hospital, death is the inevitable outcome.

There still remains a big group of neglected late cases with a dead foetus. Caesarean section should be reserved for the majority of doubtful and difficult cases. Destructive operations should be employed only after ensuring safety for the mother,

and after vaginal delivery the uterus must be explored to rule out rupture of uterus. In the Wadia Hospital series, rupture uterus was recorded in 6 cases out of total of 217 cases of oblique lie. This included 2 ruptures among 160 internal podalic versions, 2 ruptures after embryotomy, while remaining two occurred late in labour. Besides these, postpartum haemorrhage was met with in 10 cases, and in 3 cases a vaginal examination revealed big cervical tears following delivery through the undilated cervix.

There is a controversy as to the type of caesarean section. In the present series, classical section was employed in only one, with previous repair of vesicovaginal fistula. According to Eastman, classical section is the best, and he advises its employment in the majority who are multigravidae requiring sterilisation. This is because oblique lie with prolapsed arm presages a back presenting at the incision, and under the circumstances, extraction is easier through a classical section. Lower segment section is advised only in those cases where the arm is not prolapsed; otherwise there are chances of a ragged extension, or it may be necessary to convert it into an inverted T incision, and thus cause more bleeding and poor healing. We have not come across any such complications. One could limit the possibility of ragged lateral extension by curving the lateral ends of lower segment incision upwards, and further reinforcing the angles by taking anchoring sutures prior to extraction of foetus.

Finally, there still remain a number of patients with oblique lie, who

arrive at the hospital sufficiently early for caesarean section, which is not done because of mistaken diagnosis of presentation. I would therefore stress the necessity of vaginal examination in all cases where abdominal palpation is doubtful or inconclusive. The commonest mistake is to diagnose a breech presentation, whereas a timely vaginal examination will easily reveal a hand instead of the foot that one might expect. Successful management of oblique lie doubtless depends upon an early and accurate diagnosis, and in many cases an external version might be consummated with surprising ease in early labour.

Summary and Conclusion

While one may revert back in memory with some degree of nostalgia to the era of blood and thunder obstetrics, one must confess that after resorting to all the past procedures, most of them must be considered obsolete, as regards foetal salvage, save in the exceptional case. In modern obstetrics one has to resort to a caesarean section entirely in maternal interest, especially in a late neglected case with possibility of ruptured uterus. In those cases coming with premature rupture of membranes, caesarean section offers the best prospect for improving foetal salvage, especially with a live viable foetus and thick undilated cervix.

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