

PRIMARY CAESAREAN SECTION IN MULTIPARA

by

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Progress in obstetrics has been associated with an increased number of caesarean sections, even in multiparas. Since most of the multiparas have easy vaginal deliveries they do not pay much attention to the antenatal care they deserve. Moreover, the socioeconomic conditions of these patients do not permit them to have adequate balanced diet which the pregnant state demands. The relative ease with which some multiparas are delivered in the presence of faulty positions and presentations may account for the false sense of security. This invites laxity on the part of the patients as well as the inexperienced and junior obstetricians.

Due to these factors the multiparous women pass through the stage of pregnancy and labour in a subnormal state of health with a potential risk when caesarean section has to be performed.

It is for these reasons that our attention has been directed to the indications for caesarean section in women who have previously been delivered vaginally of one or more full term infant.

This study presents an analysis of 150 primary caesarean sections in multiparas with previous normal full term vaginal

deliveries. The cases were collected from January 1968 to July 1971.

Incidence

There were 7,262 deliveries and caesarean sections were performed in 305 cases, the incidence in our series comes to 4.19% in comparison to 3.3% in Klein *et al* (1963), in Sen's (1967) 1.15%. Of the total 305 operations, 209 or 68.1% were performed in multiparous women which is in correlation with Klein's (1963) series 61%. Of these 209 cases, 59 were repeat operations and 150 were primary caesarean sections. The latter compared 71.7% of the caesarean sections performed on multigravidas which is in contrast with Klein *et al* in whose series it was 25% (i.e. out of 741 caesarean sections in multipara, 555 were repeat and 186 were primary).

In total deliveries, the incidence of primary caesarean section in multiparas comes to 2.06% which is in contrast to Klein *et al* (1963) in whose series it was 0.51%, in Sen's (1967) series it was 0.89% as shown in Table I. In O'Sullivan series the incidence was 12.56%, but he took only grand multiparas.

Amongst 150 cases of primary caesarean section, only 42 i.e. 28% had antenatal care before admission.

Indications

The different indications for caesarean

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TABLE I
Incidence of Primary Section in Multipara by Different Authors

Authors	Total deliveries	Number of primary caesarean section	Percentage
Klein et al (1963)	18749	186	0.51
O'Sullivan (1963)	611	97	15.8
Sen (1967)	10546	94	0.8
Present series	7262	150	2.06

section are shown Table II and is compared with other authors.

Foetopelvic Disproportion

It was present in 39 i.e. 26% of the cases in our series. In Klein *et al* series it was 14.5%, and in Sen's series, 23.4%.

In parity group 6 and above the rate was as high as 18.9% as compared to O'Sullivan 23.3%, Sen 35.3%, amongst multiparas of the same parity group.

Of the 39 cases, only 15 had antenatal care (38.4%). Table III shows that in 31 cases there was acquired foetopelvic disproportion. In other 8 cases probably pelvic contraction was the cause as evidenced by previous difficult forceps and still birth.

The cause of acquired foetopelvic disproportion as judged clinically is shown in table IV.

In 14 cases the pelvis was found to be normal and the babies weighed between 3550 to 4460 gms. at birth. The birth weight of the previous babies could not be obtained. In these cases vertex failed to engage even with good uterine contractions, with rupture of the membranes and full dilatation of the cervix. In 5 cases of contracted pelvis with threatening rupture of uterus caesarean section was done even when there were no foetal heart sounds on admission.

In 8 cases there was osteomalacic pelvis and all were para 4 and above. In 12

cases the disproportion was due to forward advancement of the sacrum and the true conjugate was less than 10.5 cms. In 2 cases there was generally contracted pelvis and in 2 obliquely contracted pelvis.

The two main causes of acquired disproportion are either increased inclination of the pelvic brim or increased birth weight of the foetus. In Klein *et al* series, large baby rather than a contracted pelvis was responsible for disproportion. In Sen's series there were 15 cases of acquired disproportion, normal pelvis in 6 cases in which disproportion was due to a big baby, osteomalacia was present in one case and increased inclination of pelvic brim was present in 8 cases. In O'Sullivan's series, increased inclination of the pelvic brim was found to be the main cause of acquired disproportion. In our series the increased inclination of the pelvic brim and disproportion due to a big baby was nearly in equal numbers. This discrepancy with O'Sullivan and Sen series is due to the fact that the percentage of grandmultipara in their series was higher as compared to Klein *et al* and present series. The forward subluxation of the sacrum is found mainly in the grandmultipara.

According to Adam's (1957) increasing inclination of the pelvic brim is due to lumbar lordosis and occasionally forward subluxation of the sacrum upon the sac-

TABLE II
Shows the Indications of Caesarean Section & Compared with Other Authors

Indications	Sen		Klein et al		Present series		O'Sullivan, parity 6 & above		Sen series, parity 6 & above		Present series, parity 6 & above	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Placenta praevia	44	46.5	70	37.6	26	17.3	20	25.9	11	32.4	10	27
Abruptio placentae	1	1.0	13	7.0	Nil	Nil	2	2.6	1	2.9	Nil	Nil
Foetopelvic disproportion	22	23.4	27	14.5	39	26.0	18	23.3	12	35.3	7	18.9
Malpositions & presentations	11	11.7	19	10.2	36	24.0	8	10.3	5	14.7	10	27
Foetal distress	1	1.1	14	7.5	12	8.0	8	10.3	Nil	Nil	3	8.1
Bad obstetric history	6	6.38	4	2.2	8	5.3	1	1.3	2	5.9	Nil	Nil
Previous pelvic operation	4	4.26	13	7.0	5	3.3	Nil	—	2	5.9	1	2.7
Failed surgical induction	2	2.13	—	—	Nil	Nil	3	4.3	1	2.9	Nil	Nil
Cord prolapse	2	2.13	9	4.8	9	6.0	8	10.4	Nil	Nil	3	8.1
Inco-ordinate uterine action	1	1.1	1	0.5	6	4.0	2	2.6	Nil	Nil	2	5.4
Pre-eclamptic toxæmia	Nil	—	6	3.2	Nil	Nil	6	7.8	Nil	Nil	Nil	Nil
Others	Nil	—	10	5.5	9	6.0	1	1.3	Nil	Nil	1	2.7

roiliac joints due to laxity of the ligaments. These changes result in the advance of the sacrum towards the symphysis and consequently the anteroposterior diameter of the cavity is reduced.

Malpositions and Presentations

There were 36 cases of malpresentations and malpositions for which caesarean section was done, giving an incidence of 24%, in Klein *et al* series it was 10.2%, Sen's series, 11.7% and in O'Sullivan series 10.3%. The incidence is high in our series because most of the cases were emergency cases admitted late in labour.

There were 21 cases of transverse lie of which 9 cases came late in labour with impacted shoulder and absent foetal heart. In 10 cases the foetal heart sounds were absent and caesarean section was done in the interest of the mother as they came with threatening rupture.

The other malpositions were

Brow	—	10 cases
Face	—	2 cases
Breech with a big baby	—	1 case
Compound presentation	—	2 cases

In one case caesarean section was done for mentoposterior presentation with threatened rupture and absent foetal heart.

In one case the indication was breech presentation, the baby weight was 3640 gms.

Previous Vaginal and Pelvic Operations

In 5, i.e. 3.3% of cases caesarean section was done for previous vaginal operations. Two patients had repair of vesicovaginal fistulae, two rectovaginal fistulae and one had Manchester repair in whom the cervix failed to dilate with good uterine

TABLE III

Previous Obstetric History of 39 Cases Sectioned for Foetopelvic Disproportion

Parity	Normal deliveries	Difficult forceps deliveries		Perinatal death due to prolonged labour	
		Living	Still birth	Still birth	Neonatal death
2	3	1		5	
3	3		2		
4	7				
5	10				
6 & above	8				

contractions. In Klein *et al* series the incidence was 2.2%, Sen series 5.9%.

Inco-ordinate Uterine Action

In 6 cases, i.e. 4% of cases caesarean section was done for this indication. In Klein *et al* series it was 0.5%, Sen's 1.1% and O'Sullivan's 2.6%.

In two cases there was hypotonic uterine inertia in whom syntocinon drip failed to augment uterine contractions.

In 4 cases there was constriction ring dystocia. Of these, in 3 cases foetal heart sounds were absent, of which two cases were of transverse lie and one of normal vertex presentation. Vaginal manipulations were not possible in these cases.

Placenta Praevia

In the present series, in 26 or 17.3% of placenta praevia caesarean section was performed, in Klein *et al* (1963) series it was 37.6%, in Sen's series (1967) it was 46.8% and in O'Sullivan (1963) series, 25.9%.

These multiparous patients usually neglect the first haemorrhage. Moreover, it was not possible for them to come to the hospital due to household duties, even when they were admitted for first bout of bleeding and treated expectantly they wanted to go home as soon as the bleed-

ing had stopped. The average Hb. level of the patients was between 50-55%. In one case it was 25%.

Sixteen patients had bleeding on one occasion only. In seven patients bleeding occurred between 32-36 weeks of pregnancy and was severe enough to require immediate termination of the pregnancy. Ten patients had multiple episodes of bleeding. Out of these, the pregnancy was terminated before 36 weeks in 2 cases. Out of 26 cases, in 15 cases bleeding occurred prior to 36 weeks and in 9 cases the pregnancy had to be terminated before 36 weeks. Thus, a total of nine pregnancies or 34.6% complicated by placenta praevia required caesarean section before the 36 weeks.

Foetal Distress

In the present series, in 12 cases caesarean section was performed for foetal distress giving an incidence of 8% which is in correlation with Klein *et al* in whose series it was 7.5%, O'Sullivan's series 10.3 and in Sen's series it was 1.1%. The low rate in Sen's series was due to obstetricians and patients indifferent attitude regarding caesarean section for a living baby in multipara with living children. But the ideal obstetrics is to have a living baby and should not deter to do caesarean

TABLE IV
 Showing the Previous Obstetrical History and the Unfavourable Current Factors
 Requiring Elective Caesarean Section

S. No.	Age	B or E	Previous obstetrical history	Unfavourable current factors	Birth weight in gms.	Condition of baby
1.	26	B	4 abortions 5th full term still born	Precious baby	2730	Living
2.	30	E	First full term still born; 2nd transverse lie, still born	Transverse lie	2730	Living
3.	30	E	1st F.T.N.D. living female 2nd & 3rd full term still born	Breech with a big baby	3550	Living
4.	30	B	3 full term normal deliveries; babies died immediately after birth	Unstable lie	2640	Living
5.	37	B	One full term stillbirth	Elderly patient	3200	Living
6.	25	B	One F.T.N.D. living 2nd & 3rd stillbirth	Bad obstetrical history	2730	Living
7.	30	B	1st abortion 2nd & 3rd full term stillbirths 4th abortion	Breech	2500	Living
8.	22	B	One full term stillbirth	Breech with premature rupture of membranes	2280	Living

section even in a multipara with living children. The foetal distress was associated with leaking membranes for 12 hours in 3 cases, cord round the neck in two and in one there was pre-eclamptic toxæmia. In the remaining 6 cases no cause could be determined. There was no foetal mortality in these cases.

Cord Prolapse

The rate of primary caesarean section in multipara for this indication depends on the interval between the prolapse of cord and admission and on the promptness of the staff for immediate delivery, either caesarean section or vaginal delivery depending on the dilatation of the cervix and the presence of foetal heart. In our series, in 6% of the cases caesarean section was performed for this indication. In Klein *et al* series it was 4.8%, Sen's series 2.13% and O'Sullivan's 10.4%. In 7 of the 9 cases the membranes had ruptured at home and were admitted with cord prolapse. In 2 cases membranes were intact and there was cord presentation. In all these 9 cases the babies were living. In none of the cases cervix was fully dilated when the diagnosis was made. The complication was associated with breech presentation in 2 cases, transverse lie in one and in 6 cases it was vertex which was floating.

Bad Obstetrical History

Table IV summarises the unfavourable obstetrical factors of previous as well as those of current pregnancies which resulted in caesarean section. In 8, 5.3% cases caesarean section was done for this indication. In Klein *et al* series it was 2.2% in Sen's series 6.38%. In 6 cases elective caesarean section was done. Two cases were emergency admissions. Of these, one case, No. 2, in

Table VII was admitted with transverse lie in early labour and caesarean section was done immediately on admission. The other case, No. 3, was of breech presentation with a big baby (Weight 3410 gms.), with 2 finger dilatation. In all the cases either there was previous history of abortion or stillbirth or neonatal deaths.

Others

In 9 cases i.e. 6% caesarean sections were done for cervical dystocia. One case was of cancer cervix who was a 6th. para, in two cases there was fibrosis of the internal os, in three there was uterovaginal prolapse and the cervix failed to dilate. In three cases of nondilatation of the cervix, the cause was not known.

Maternal Mortality & Morbidity

In the present series there were 9 i.e. 6% maternal deaths in contrast to Klein *et al* series in which it was 0.5% and in Sen's series 2 deaths out of 94 were the cases of placenta praevia. In O'Sullivan's series there was no maternal death.

Two deaths were in cases of placenta praevia of whom one was severely anaemic (Hb. 3 gms%). The caesarean section was undertaken after arranging for blood transfusion and both of them died within 24 hours after operation.

Two deaths were due to severe septicaemia and one due to peritonitis. Four deaths were in cases of transverse lie who came late in labour handled by dai and they died of obstetrical shock. One of the cases was severely anaemic (Hb. 4 gms%) and had postpartum haemorrhage also.

Analysis of morbidity is shown in table V. In 28 patients i.e. 18.6% had some sort of post operative complications but majority of the cases were anaemic and emergency admissions. In Sen's series the morbidity was 20.2%.

TABLE V
Morbidity

1. Wound sepsis	11
2. Puerperal sepsis	3
3. Injection abscess	3
4. Paralytic ileus	2
5. Hyperpyrexia	2
6. Pyometra	2
7. Thrombophlebitis	1
8. Urinary infection	2
9. Uretero vaginal fistula	1
10. Tetanus	1

Foetal Mortality & Morbidity

There were 28 perinatal deaths. Out of these, 21 were stillbirths and 7 neonatal deaths. This gives the perinatal mortality of 18%, in comparison to 11.6% in Klein *et al* and 22.3% in Sen's series (uncorrected).

Table VI shows the analysis of perinatal

counted for maximum foetal deaths (15 out of 21 cases). In Klein *et al* series abruption placenta accounted for maximum foetal deaths.

In the present series maximum foetal loss was in cases of malpresentations. Amongst 36 infants, 12 were lost 33.3%. In Klein *et al* series it was 10.7%. There were 11 stillborn infants dead on admission and one neonatal death due to aspiration pneumonia.

In foetopelvic disproportion, 6 babies were lost. Five were already dead on admission and one died due to prematurity.

One neonatal death was in a Rh. positive baby during exchange transfusion.

Perinatal mortality mainly reflects the foetal risk inherent in the indication for caesarean section rather than in the pro-

TABLE VI
Showing Perinatal Mortality (Stillbirths & 1st Week Deaths.)

Indication	No. of cases	Survived	Foetal loss		
			Still birth	Neonatal death	Percentage
Placenta praevia	26	20	2	4	23.0
Malpositions and malpresentations	36	24	11	1	33.3
Foetopelvic disproportion	37	31	5	1	16.2
Inco-ordinate uterine action	5	2	3	-	60.0
Others	8	7	-	1	12.5

mortality in the present series and table VII shows comparative perinatal mortality of Klein *et al* and Sen series.

Patients with placenta praevia sustained a foetal loss of 23%. There were 2 stillborn infants and 4 neonatal deaths. Three were due to prematurity weighing 1500, 1360 & 1140 gms. One baby weighing 3640 gms. was asphyxiated at birth due to central placenta praevia.

In Sen's series placenta praevia ac-

cedure itself. The 3 deaths which were due to prematurity were associated with placenta praevia. The caesarean section was performed in the interest of the mother, though the infants were premature.

By excluding patients admitted with absent foetal heart our foetal mortality can be corrected to 5.4%. Klein *et al* series corrected foetal mortality was 6.8%.

TABLE VII
Comparative Analysis of Foetal Deaths of Different Authors

Indications	No. of cases			Foetal loss			Percentage		
	Present series	Klein series	Sen series	Present series	Klein series	Sen series	Present series	Klein series	Sen series
Placenta praevia	26	70	44	6	8	15	23.0	11.4	34.0
Prolapse cord	-	10	2	-	2	1	-	20.0	50.0
Malpresentations & positions	36	19	11	12	2	2	33.3	10.5	18.2
Foetopelvic disproportion	39	28	22	6	3	3	15.3	10.7	13.6
Abruptio placentae	-	14	1	-	7	-	-	50.0	-
Others	9	48	-	1	-	-	11.1	-	-
Inco-ordinate uterine action	5	-	1	3	-	-	60.0	-	-

Comments

Our study presents a true picture of the manner in which primary caesarean section have been utilised in multiparous women. The most common indication in our study was foetopelvic disproportion, next came malpositions and placenta praevia came as the third frequent indication. In Klein *et al*, Sen and O'Sullivan's series placenta praevia was the commonest indication.

Ordinarily in a multipara with a history of normal delivery, cephalopelvic disproportion is not suspected unless searched for. This often tends to a longer labour with the development of excessive moulding and caput formation which lulls the observer into believing that progress is being made and many a times delivery by forceps application fails which did not happen in our series. This error can be avoided by careful clinical assessment and if possible X-ray studies.

Although every woman deserves a chance to be delivered vaginally, the obstetrician must not unknowingly deny her the chance of a living baby by allowing her to labour indefinitely. The timing of caesarean section is therefore of utmost importance. A multigravida in labour with a floating head should receive the same investigation as the primigravida to reduce foetal and maternal mortality and morbidity.

The value of proper antenatal care is of as much importance to all multipara as in a primipara and this should be impressed to all concerned.

Summary

1. Primary caesarean section were performed on 150 multiparous women between 1968 January to July 1971.

2. The general incidence of caesarean

section was 4.19% and the incidence in multipara was 2.06%.

3. Foetopelvic disproportion was the most frequent indication and next was malpositions and the third most frequent indication was placenta praevia.

4. The maternal mortality was 6%.

5. The maternal morbidity was in 28 patients.

6. The gross perinatal mortality was 18% and the corrected mortality was 5.4%.

7. Majority of the operations were done in the interest of the mother, rather than for the baby.

8. Only 42 patients had antenatal care.

9. Most of the patients were admitted late in labour due to indifferent attitude of the multipara and ignorance about malpresentation and foetopelvic disproportion.

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