PRIMARY CAESAREAN SECTION IN MULTIPARA

by

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This paper presents an analysis of a series of cases where caesarean sections had been done for the first time in multiparous patients who had previous vaginal deliveries.

As most of the multiparae have easy vaginal deliveries they do not pay much attention to the antenatal care they deserve. Moreover, the socio-economic condition of these patients does not permit them to have adequate balanced diet which the pregnant state demands.

In a busy maternity unit these patients get expert supervision only when unforeseen emergency arises either during pregnancy or labour.

Due to the above factors the multiparous women pass through the stage of pregnancy and labour in a subnormal state of health and there remains a potential operative risk when caesarean sections have to be performed.

Material

This series consists of ninety-four cases of primary caesarean sections done in multiparous patients. The cases have been collected from the records of the obstetric unit of Howrah General Hospital, a district hospital in West Bengal. The record covers a period of four and half years from January 1962 to July 1966. During this period there had been 14,183 deliveries of viable babies of which 10,546 deliveries were amongst multiparous women. For the sake of comparison with other series, the multiparous women are divided into two groups, the first one being those who had two to five deliveries, consisting of 7,232 patients, and the second one of those who had six or more deliveries, a total of 3,314 patients.

Twenty-one cases who had repeated caesarean section are excluded from this series. Ten cases of caesarean hysterectomies done for ruptured uterus have also not been included.

Incidence

There were 164 caesarean sections amongst the 14,183 deliveries, the percentage being 1.15; 49 caesarean sections were done for primiparae among a total of 3,637 deliveries, an incidence of 1.34 per cent.

Regarding the incidence of primary caesarean section in multiparae, the factors which were found to be of importance are discussed.

Antenatal attendance

During the period of four and half years, 12,004 new patients attended the antenatal clinics. There were 9,245 multiparae of which

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TABLE I

Primary Caesarean Sections in Multiparae

Parity	Total No. of deliveries	No. of primary caesarean sections	Percentage		
			Present series	Klein et al	O'Sullivan
2-5	7232	60	.81		
6 and above	3314	34	1.02		12.56
Total	10,546	94	0.89	0.51	

patients came for delivery in the hospital.

It is quite apparent that out of 10,546 deliveries in multiparae 3,523 patients had no antenatal supervision.

Amongst ninety-four patients who had caesarean section, eighty-three patients had no antenatal care before admission, the other patients were [illegible]egular regarding attendance at the [illegible]l clinic.

Obstetrician's attitude towards the primary caesarean section in multigravidae

A section of medical staff is inclined to avoid caesarean sections in multiparae as far as possible. According to the group, the patients who are delivered by abdominal route will not attend the antenatal clinic when they conceive again; as a result a potential risk of uterine rupture in subsequent pregnancy and labour remains. With this view, quite a number of caesarean sections had been avoided even when timely sections could have saved the babies.

The author in this paper has tried to analyse the cases when alternatives to caesarean sections had been tried.

Analysing these sixty-six cases (Table 2), according to the author, at least in twelve cases caesarean section would have yielded better results regarding foetal mortality and maternal morbidity.

Two cases in the parity group six and above, had difficult mid-forceps delivery with stillbirth, the babies weighing between 7½ and 8 pounds. These cases should have had caesarean section done.

Amongst eight patients where operative deliveries by craniotomy had been done, in four cases craniotomy

TABLE II

Operative deliveries amongst the multiparous women other than caesarean section

[illegible]	Forceps	Destructive operation	Internal podalic version	Total
[illegible]	25	12	8	45
[illegible]	11	9	1	21
[illegible]	36	21	9	66

was done in non-engaged heads. Three of the patients developed vesico-vaginal fistulae and one had occlusion of the vagina due to adhesions.

As for the patients where decapitation had been done, in one case there was rupture of the uterus and two had severe obstetric shock. In these three cases instead of the difficult procedure caesarean section should have been prefered.

In three cases where labour had been allowed to continue till suitable dilatation of cervix for internal podalic version as a means of delivery in transverse presentation, there had been still-births of babies weighing more than 7½ lbs. Caesarean section could have saved these babies.

Caesarean section had been avoided in seven cases where destructive operations were prefered because the cases were thought to be grossly infected. These patients had spontaneous rupture of membranes for more than seventy-two hours. In a similar type of cases the author prefers caesarean section with the use of antibiotics and he has found it less hazardous than craniotomy and embryotomy.

Stabler has analysed cases of craniotomy and embryotomy and according to him caesarean section is a much safer procedure.

Regarding the attendance at antenatal clinic in future pregnancy, according to the author's opinion, the patients who had caesarean section attend the clinics regularly if they are advised regarding the dangers of not attending. There had been no rupture of scar from previous caesarean sections in this hospital dur[illegible] the period of four and half yea[illegible]

TABLE III

Indications

Indication	Present Series		Klein et al		O'Sullivan parity 5 and above		Present Series parity 6 and above	
	No.	%	No.	%	No.	%	No.	%
Placenta praevia	44	46.8	70	37.6	20	25.9	11	32.4
Abruptio placentae	1	1	13	7	2	2.6	1	2.9
Foetopelvic dispro-portion	22	23.4	27	14.5	18	23.3	12	35.3
Tranverse lie.	11	11.7	19	10.2	8	10.3	5	14.7
Foetal distress.	1	1.1	14	7.5	8	10.3	Nil	Nil
Bad obstetric history.	6	6.38	4	2,2	1	1.3	2	5.9
Previous pelvic operation.	4	4.26	13	7	Nil	Nil	2	5.9
Failed surgical induction.	2	2.13	-	-	3	4.3	1	[illegible]
Cord prolapse.	2	2.13	9	4.8	8	10.4	[illegible]	[illegible]
In-cordinate ut. action	1	1.1	1	0.5	2	2.6	[illegible]	[illegible]
Pre-eclamptic toxaemia.	Nil	Nil	6	3.2	6	7.8	[illegible]	[illegible]
Others.	Nil	Nil	10	5.5	1	[illegible]	[illegible]	[illegible]
Total:	94	100.0	186	100	7[illegible]	[illegible]	[illegible]	[illegible]

Placenta praevia

It will be realised from Table 3 that out of 94 caesarean sections, in 44 cases the indication was placenta praevia. This represents 46.8 per cent of the primary caesarean sections. During the same period, 73 proved cases of placenta praevia had been admitted amongst the multiparae, the caesarean section rate being 60.2 per cent. In a recent series of 200 cases of placenta praevia, Macafee, as quoted by Ian Donald, reported a caesarean section rate of 57.7 per cent, the foetal mortality being 10 per cent. There was no maternal death in Macafee's reported cases. The high percentage rate of caesarean section in his series was to get live babies near term after 38th week, the treatment before 38th week being expectant.

In the present series, the high percentage of caesarean section is due to different reasons.

It will be realised that 37 cases had caesarean sections before 36 weeks. Thirty-six cases had multiple bleeding episodes before admission. The reason for early termination of pregnancy by abdominal route is analysed below.

There is acute scarcity of blood supply from the Medical College Blood Bank from where this hospital gets blood for the patients. This hospital has no blood bank of its own. The maximum amount of whole blood available per patient was 560 c.c., the average being 250 c.c. per patient. This amount of blood was thought to be too insufficient for expectant treatment with history of multiple bleeding episodes. A separate blood bank within the hospital campus has been found to be extremely essential and necessary. Steps have been taken to organize a blood bank in the near future.

The average haemoglobin level of the patients was between 55-50 per cent. In ten cases the haemoglobin level was as low as 40 per cent.

These multiparous patients usually neglected first warning haemorrhage as trivial. Moreover, it was not always possible for them to come to the hospital due to household duties, even if they contemplated, for a check up for the warning haemorrhage.

When these patients were admitted and treated expectantly, they liked to go home as soon as the bleeding had stopped because there was no one to look after the children.

Due to the above factors, these patients were usually admitted as emergency, when they had an alarmingly large bout of bleeding. Seventy per cent of them had been found to be in a state of shock due to haemorrhage.

TABLE IV

No. of bleeding episodes	No. of cases	C.S. between 28-34 weeks	C.S. between 34-36 weeks	C.S. after 36 weeks
Single	8	nil	2	6
Multiple	36	7	28	1
Total	44	7	30	7

From Table 4 it is quite apparent that 37 cases out of 44 patients had caesarean section before thirty-six weeks, only to avoid the risk of maternal death, without any attempt to save the baby.

Foeto-pelvic disproportion

Twenty-two patients had primary caesarean sections for this indication, the rate being 23.4 per cent. In the parity group six and above the rate was as high as 35.3 per cent whereas in O'Sulivan's series it was 23.3 per cent amongst multiparae of the same parity group. In Klein's series the rate was 14.5 per cent.

Out of twenty-two cases, nineteen patients had no antenatal care and all of them were admitted as emergencies late in labour.

TABLE V

Previous obstetric history of twenty-two cases sectioned for foetopelvic disproportion

Parity	Normal deliveries	Difficult forceps delivery	Perinatal death due to prolonged labour
2	-	5	
3	-	2	
4	-	-	
5	3	-	
6 and above	11	-	1
Total	14	7	1

From Table 5 it is evident that in 15 cases there was acquired pelvic contraction and all the cases were from fifth parity and above.

In the other seven cases pelvic contraction had always been present because these patients had mid-pelvic contraction which led to previous difficult mid-forceps deliveries with perinatal mortality in all cases.

The cause of acquired foeto-pelvic disproportion on clinical or radiological evidence is given in Table 6.

TABLE VI

Normal pelvis	.. 6 cases
Osteomalacia	.. 1 case
Increased inclination of pelvic brim	.. 8 cases

In six cases the pelvis was found to be normal on clinical assessment and the babies weighed between eight and nine pounds at birth. In previous deliveries the birth weights varied from six to seven pounds. In these cases the vertex failed to engage even with good uterine contractions. The disproportion was due to larger babies. There was only one case of pelvic contraction due to osteomalacia and she was a fifth para.

In eight cases the disproportion was due to forward advance of the sacrum and the true conjugate was less than 10.5 cm. The diagnosis was confirmed by radiography.

The two main causes of acquired disproportion are either increased inclination of the pelvic brim or increased birth weight of the foetus. In Klein's series large baby rather than a contracted pelvis was responsible for the disproportion. In O'Sullivan's series the increased inclination of the pelvic brim was found to be the main cause of acquired disproportion. This discrepancy with Klein's series may be due to the fact that the percentage of grand multiparae in this series and O'Sullivan's series is higher. The forward subluxation of the sacrum is

in- antenata

found mainly amongst the grand multiparae.

According to Adams (1957) increasing inclination of the pelvic brim is due to lumbar lordosis and occasionally forward subluxation of the sacrum upon the sacro-iliac joints occurring due to laxity of the joint ligaments. These changes result in the advance of the sacrum towards the symphysis and consequently the antero-posterior diameter of the cavity is reduced.

Malpresentations

The incidence of primary caesarean section is 11.7 per cent. There was one case of persistent brow presentation, the other cases being of transverse lie. Of the eleven cases in this series in ten cases the pelvis was normal in shape and size, in one case there was acquired deformity of pelvis due to tuberculosis. These cases had been admitted after onset of labour and version was not possible.

Foetal distress

In this series only in one case primary caesarean section was done for foetal distress.. In O'Sullivan's series, the rate of primary caesarean section for foetal distress was 10.3 per cent and in Klein's series it was 7.5 per cent.

The low rate in this series is due to obstetricians' and patients' indifferent attitude regarding caesarean section for a living baby.

Analysing the perinatal deaths amongst the multigravid patients, at least twelve babies could have been saved by timely caesarean sections. Abdominal delivery had been avoided in these cases as it was considered to be a major operation for patients having more than four children. The author does not agree with this view, as caesarean section would offer not only an opportunity for live babies but also for permanent sterilization if the patients were willing.

Prolapse of cord

In only two cases caesarean section was done for this indication. Due to difficulties in transport facilities pulsation of cord was seldom found after the admission of patients with prolapse of cord.

In both the cases in this series, the presentation was shoulder and the membranes had ruptured before admission. The rate of primary caesarean section for this complication depends on the interval between the prolapse of the cord and admission, and on the promptness of the staff for prompt operation.

Pre-eclamptic toxaemia and abrupto placentae

In this series no caesarean section was done for pre-eclamptic toxaemia and only one case was operated for abruptio placentae.

As an alternative to caesarean section, artificial rupture of membranes had been preferred to hasten the delivery of the foetus with or without the help of pitocin drip.

Previous vaginal and pelvic operations

Four patients with previous vaginal operations had caesarean sections. One patient had repair of vesico-vaginal fistula. In three cases, a high amputation of cervix had been done and

the cervix failed to dilate with uterine contractions. In contrast, ten patients, who had previous amputation of cervix, delivered normally.

Bad obstetric history

Six caesarean sections were performed for bad obstetric history covering 6.38 per cent of all indications. In these cases the patients had repeated neonatal deaths with one or no living child. The ages of the patients varied from 30 to 35 years.

Perinatal death

There had been twenty-one perinatal deaths, none being stillbirths. This represents 22.3 per cent perinatal mortality in comparison to 11.6 per cent (uncorrected) in Klein's series.

There were 13 premature births, weighing less than four and half pounds, prematurity accounting for 62 per cent of foetal deaths.

All these thirteen cases were associated with placenta praevia and caesarean section had been done in the interests of the mother.

Out of 21 foetal deaths, placenta praevia accounts for 15, of which again there had been 13 premature births. Due to shortage of stored blood, caesarean section had been entertained too early in pregnancy. In these cases if expectant treatment was possible at least seven babies could have been saved; want of separate premature units is another factor. Delay in admission was found to be the next main cause of foetal deaths.

In Klein's series, abruptio placentae accounts for maximum foetal deaths.

The foetal deaths were due to the conditions for which caesarean section had been done and not due to the operation itself. The uncorrected foetal deaths amongst multiparae were 10.57 per cent.

Maternal deaths

There were two maternal deaths. The two deaths were due to postoperative shock within 24 hours after operation, the indications in both cases being central placenta praevia, only 560 c.c. blood was available in each case though the patients had lost about one and half litres of blood. Moreover, there was delay in start-

TABLE VII

Analysis of Foetal Deaths

Indications	No. of cases		Foetal loss		Per cent	
	Present series	Klein's series	Present series	Klein's series	Present series	Klein's series
Placenta praevia	44	70	15	8	34	11.4
Foeto-pelvic disproportion	22	28	3	3	13.3	10.7
Abrupto placentae	1	14	-	7	-	50
Malposition	11	19	2	2	18.2	10.5
Prolapse cord	2	10	1	2	50	20
Total	94	189	21	22	22.3	11.6

ing blood transfusion. The anaesthetists and surgeons in these cases were quite competent to deal with emergency cases.

Morbidity

Nineteen patients had some sort of post-operative complications.

Analysis of morbidity:

Wound sepsis	—	10 cases
Burst abdomen	—	2 cases
Paralytic ileus	—	3 cases
Lung complication		4 cases

As a majority of the cases are anaemic and admitted as emergency, the morbidity of 20.2 per cent is not very high.

Summary

(1) Ninety-four cases of primary caesarean sections in multiparae have been analysed.

(2) Majority of the operations were done in the interests of the mothers, rather than for the sake of living babies.

(3) Placenta praevia, acquired foeto-pelvic disproportion and malpresentation were the main indications for primary caesarean sections in multiparae.

(4) Due to indifferent attitude of the multiparae and laxity in obstetrician's outlook, most of the patients had been admitted too late.

(5) Due to lack of supply of blood for transfusion and anaemic condition of the patients, caesarean section had been performed too early, for certain indications with a heavy foetal loss.

(6) Caesarean section should have been the choice of treatment in 12 cases where vaginal operative deliveries had been preferred as alternatives.

(7) Adequate antenatal care and booking system for the multigravida, and organization of adequate supply of blood for transfusion should offer better results concerning primary caesarean section in multigravidae.

(8) Multigravid patients should have equal attention as the primigravidae to reduce foetal loss and maternal mortality as a result of caesarean section.

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