

A REVIEW OF CASES OF CAESAREAN SECTION

at

(A. H. M. & Dufferin Hospital, Kanpur)

by

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In this paper there is an analysis of cases of caesarean section performed during the five years from 1957 to 1961, in the A. H. M. & Dufferin Hospital Kanpur.

The total number of deliveries during that period was 22,446. The number of caesarean sections performed during the same period was 713, giving an incidence of 3.17%.

Caesarean Section Incidence

Table No. I gives the number of caesarean sections year by year. The

TABLE I
Incidence of Caesarean Section during
5 years, 1957 to 1961

Year	Deliveries	Caesarean section	Incidence
1957	4372	113	2.58%
1958	4367	103	2.3%
1959	3962	137	3.47%
1960	4463	164	3.67%
1961	4579	196	4.3%
Total	21733	713	3.24%

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highest figure (4.31%), in 1961, was due to larger number of cases of contracted pelvis mostly, cases of osteomalacia admitted during that year. Relatively more caesarean sections were also performed primarily for the welfare of the foetus.

The figures in this series are almost equal to those reported at Bombay Hospital 3.16% (1957) and Queen Charlotte Hospital 3.31% (1945 to 1954); but are little higher than previous Indian reports, 1.49% Wadia Hospital, Bombay, 2.43% Lady Harding Medical College (1956).

The bulk of these caesarean sections were in the age groups ranging from 21 years to 29 years and 30 to 39 years, 370 being in the former and 233 in the latter.

There were 183 primiparae among a total of 713 cases subjected to caesarean section, which points to the fact that the primipara is more liable to get complications of labour like uterine inertia, cervical dystocia etc.

Lower segment caesarean sections were performed in 99.15% (707 out of 713 cases).

In a few instances classical caesarean section had to be done. Out of the six cases of classical caesarean

section, in two the pelvis was markedly contracted due to severe osteomalacia where lower segment could not be reached, and two others were admitted with constriction ring which had to be incised during the operation. Of the remaining two, one was a multipara with severe accidental haemorrhage and marked pelvic contraction and the other had a previous classical caesarean section at some other hospital and the scar was thin and had to be repaired.

to more patients seeking antenatal advice and admission to the hospital in time. There has been relative decrease in cases of osteomalacia as compared to the previous year. However, other varieties of contracted pelvis do not show much change.

Placenta Previa

A total of 139 (19.7%) caesarean sections was performed for placenta previa; 757 cases were admitted with placenta previa during this period.

TABLE II
Indications for Caesarean Section

Indications	1957	1958	1959	1960	1961	Grand Total of 5 years
1. Contracted Pelvis ..	35	31	50	53	83	252
2. Placenta Previa ..	22	18	32	35	32	139
3. Malpresentation ..	10	8	6	23	22	69
4. Uterine inertia ..	4	8	17	13	15	57
5. Foetal distress ..	20	8	15	6	9	58
6. Repeat Caesarean Section ..	8	11	3	11	6	39
7. Miscellaneous ..	12	20	13	25	29	99
Total ..	111	104	136	166	196	713

Classification has been done according to the main indications, although there were more than one indication in a few cases, as for example an elderly primigravida with cephalopelvic disproportion or toxæmia, post-maturity associated with toxæmia or mal-presentation etc.

Contracted pelvis

Contracted pelvis and cephalopelvic disproportion top the list in the present series, 35.06% (250 out of 713). Osteomalacia is more common in this state than in other parts of India. The increased incidence is due

Malpresentation

This is the third in the series, 9.6% (69 in 713) of caesarean sections being performed for malpresentation. Of the 69 cases of malpresentation 38 were transverse, 20 brow, 9 mento-posterior and 2 cases of breech with mild inlet contraction.

Uterine Inertia 8.1% (58 in 713)

This constitutes the next common indication in these cases. Varieties of uterine dysfunction observed were hypotonic uterine inertia in 24, cervical dystocia in 28 and constriction ring in 5.

Foetal Distress 7.9% (57 of 713)

In these 4 cases signs of foetal distress set in before the cervix was sufficiently dilated. This complication was more common in the primigravida and more often seen with toxæmia or post-maturity.

Repeat Caesarean Section 5.4% (39 of 713)

The incidence of repeat caesarean section in our hospital is lower than that reported by some authors. Satur, 1958, Edvin De Costa 50.7% (1959). We had only two cases of rupture of the scar with loss of one foetus. There has been no maternal death due to this complications in this hospital. Most cases were hospitalised about ten days before the expected date of delivery and vaginal delivery was allowed in favourable conditions, such as follows:

- (i) Previous lower segment caesarean section.
- (ii) Cervix soft and dilatable.
- (iii) Foetus and pelvis normal by X-rays.
- (iv) Afebrile puerperium in previous section.
- (v) Patient psychologically receptive.

One case developed tenderness of the scar and was operated immediately. Both mother and baby were alright.

Repeat caesarean section was only performed for recurrent causes.

As many a 73.8% successful vaginal deliveries achieved in such cases by R. L. Riva & John C. Teich (1961), supports our line of treatment.

Cord Prolapse (19 of 713) 2.6%

These were mostly with vertex presentation having mild cephalopoeitic disproportion when the os was not fully dilated; only a few were associated with transverse lie.

Bad obstetrical history Repeated Stillbirths (16 of 713) 2.2%

There were 16 such cases where no apparent cause for previous repeated stillbirths at term was found. In these cases caesarean section was performed at 36 weeks.

Elderly Primipara (14 of 713) 1.9%

Elderly primipara per se was not listed as specific indication for operation.

The need for caesarean section was only considered under adverse circumstances influencing the picture, which in themselves, had they occurred in a younger patient, would not have necessarily been an indication for caesarean section. Such conditions included abnormality of presentation, position and forces.

Other miscellaneous

- (i) toxæmia of pregnancy. (6).
- (ii) cancer cervix. I stage III).
- (iii) postmaturity. (5) cases — there was foetal distress.
- (iv) vaginal cicatrization, maternal distress, failed forceps.

Maternal Mortality

In this series of 713 caesarean operations four patients died within three days of the operation, giving the mortality rate of 0.56%; better results

have been quoted by others, Marshall and Cox 0.99% (1949) in elective caesarean sections, Haskin, Wissness and Allen, no death between 1948 to 1958, 0.3% J. H. Hamillan (1959). Our figures are high because these patients came from villages as cases of obstructed labour and had no antenatal care.

Of the four cases 3 died of obstetric shock. All the 3 were cases of obstructed labour admitted in poor condition with marked dehydration. They were all handled by untrained village midwives. One had severely

Perinatal Mortality

Among these cases perinatal mortality rate was 11.7% (84 out of 713) 42 were stillborn and 42 died during their stay in the hospital. (within 7 days).

As seen in table III, although there is no appreciable change, foetal mortality is slightly on the decrease during the last three years, with a minimum figure in 1959 (9.5%). In the same year maximum number of elective caesarean sections was performed. Perinatal mortality was higher among emergency cases.

TABLE III
Showing Foetal Mortality

Year	No. of caesarean section	Perinatal mortality		Still-births		Neonatal mortality	
		No.	%	No.	%	No.	%
1957	113	15	13.2%	7	6.2%	8	7.08%
1958	103	14	13.5%	5	4.75%	9	8.75%
1959	137	13	9.5%	8	5.8%	5	3.6%
1960	164	20	12.1%	10	6%	10	6%
1961	196	22	11.2%	12	6.1%	10	5.1%
Total	713	84	11.7%	42	5.85%	42	5.85%

contracted pelvis, second one had impacted shoulder presentation, and the third had a brow presentation with threatened rupture; the fourth case died of septicaemia which did not respond to even broad spectrum antibiotics.

Maternal Morbidity

Puerperal morbidity was observed in merely 50% of cases, highest being among emergency cases and cases of placenta previa. This was in the form of febrile reaction, mild wound sepsis and urinary infection. Due to lack of proper follow up the late morbidity could not be studied in these cases.

These figures are quite comparable with those reported from other centres in this country, 12.27% Apteker (1956), 13.04% Bombay Hospital (1956). Better results have been reported in the western countries. 3.06% R. Loch Joseph May (1957), 5.0% Carl 2. Ehrhardt & Edwin (1958), 4.9% Edward Hall (1958), 7.16% Joseph Klein (1960).

Out of the 42 still-births, 16 were premature. Maximum still-births occurred in cases of contracted pelvis with or without malpresentation. These were cases who were admitted as emergency late in labour. In the cases where elective caesarean

sections were performed for contracted pelvis, there were no still-births. An appreciable number of still-births was observed in cases of placenta previa (9) and foetal distress (13). Here babies could not be revived. Eight of the babies in cases of placenta previa were premature.

Out of 42 neonatal deaths 18 were premature; 6 out of these 18 weighed less than 3½ lbs in whom cause of death can be solely attributed to prematurity. Of the remaining 12 premature babies, maximum number of deaths occurred due to pulmonary infection. One died of diarrhoea and one with convulsions.

Of the 24 full-term babies asphyxia was the cause of death in 8 cases. Here signs of foetal distress were present prior to operation. Babies born had white asphyxia and were revived with difficulty. They either died within a few hours after birth or during the first thirty-six hours. Thus in 26 out of a total of 84 perinatal deaths, cause of death was asphyxia.

All the patients were given general *anaesthesia* (open ether) except 4 whose operations were performed under local anaesthesia; 4 of these full-term babies died of convulsions and in these exact cause of death could not be ascertained as permission for post-mortem could not be obtained; 4 babies died of cerebral haemorrhage and one died of diarrhoea.

Summary

In a series of 217533 deliveries in the A. H. M. Hospital caesarean section was done in 713 cases, giving an incidence of 3.24%.

Lower segment caesarean section technique was adopted in most of the cases.

Repeat caesarean section was not common in this hospital, the incidence being 5.4%.

Maternal mortality was 0.54%.

Perinatal mortality was 11.7%.

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