

## CAESAREAN SECTION

(At Sree Avittam Thirunal Hospital)

by

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Sree Avittam Thirunal Hospital is the Women and Children Hospital, attached to the Medical College, Trivandrum. The Department of Obstetrics and Gynaecology is still in its infancy and it would be interesting and advantageous to make a study of its past with a view to shaping its future. The following is an attempt to study the caesarean sections done in the Department, from 1-1-1955. Unfortunately no obstetric records prior to 1-1-1955 could be traced.

### *Incidence*

From January 1955 to December 1962, during a period of eight years, there were 26,210 deliveries of which 1452 were delivered per abdomen—an incidence of 5.54 per cent of caesareans.

The average number of deliveries was 3229 per year. There was a progressive increase in the number of caesarean sections from year to year, except a slight drop in 1960. This drop was only to gain greater momentum and is followed by a sudden and steep rise in 1961 and 1962. Graph I represents the percentage incidence of caesarean sections during the period under study. It was fluctuating between 3.2 and 5.1 per cent with a tendency to increase from year to year from 1955 to 1960. In 1961 and 1962 it has gone up to 6.2 and 9.0 per cent respectively.

### *Type of Caesarean Sections*

Of the total 1452 cases 84.4 per cent were lower segment and 15.6 per cent classical sections. Table I shows the

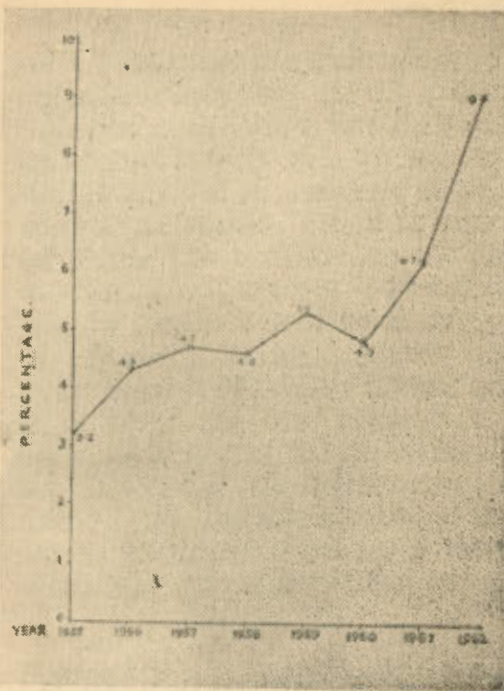
TABLE I  
*Incidence of Classical and Lower Segment Sections*

Year	1955	1956	1957	1958	1959	1960	1961	1962
Lower Segment	34	57	109	128	158	152	249	330
Percentage	67%	68%	70%	73%	85%	91%	91%	92%
Classical	17	27	47	48	27	15	25	29
Percentage	33%	32%	30%	27%	15%	9%	9%	8%

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year by year incidence of the lower segment and classical sections. Here it is quite gratifying to note that there had been a progressive reduction in the incidence of classical sections from 33.3 per cent in 1955 to 8 per cent in 1962.



Graph 1

Table II shows the distribution of the caesarean cases according to age.

TABLE II  
Distribution of Caesarean Cases according to Age

Age Groups	No. of cases	Percent
16-20 years	219	15
21-30 years	772	53.1
31 and above	434	31.4

TABLE III  
The general pattern of incidence (in percentage) of child birth in the different age groups drawn from an analysis of 20,000 consecutive deliveries in the institution

Age group	Percentage
16-20 years	13.1
21-30 years	58.9
31 and above	27.9

Table III is drawn from an analysis of 20,000 consecutive cases of child-birth in the institution and represents more or less the general pattern of incidence of child-birth in the different age groups.

TABLE IV  
Comparison between the Percentage Distribution of Caesarean Sections and that of Child Birth in the Different Age Groups.

Age group	Percentage in caesarean	Percentage in total child birth	Difference
16-20 years	15.0	13.1	plus 1.9
21-30 years	53.1	58.9	minus 5.8
Above 31 years	31.4	27.9	plus 3.5

Table IV shows a comparison between the percentage distribution of caesarean and that of total child-birth in different age groups. This reveals that the incidence of caesarean section is on the positive side in the age group 15 to 20 and 30 to 40 by plus 1.9 per cent and plus 3.5 per cent respectively, whereas it is on the negative side by minus 5.8 per cent in the age group 21 to 30. This shows that the incidence of caesarean section is higher in the age group 16 to 20 and 31 to 40 and less in women between 21 and 30. Therefore, if age alone is taken as the influencing factor to assess the prognosis for vaginal or abdominal delivery it may be stated that the ages below 20 years and above 30 years are more likely to result in caesarean and ages 21 to 30 are less prone to caesarean.

A comparison between the percentage distribution of caesarean cases according to parity with that of general distribution of child-birth in

the hospital was made, and it was noticed that the incidence of caesarean is on the positive side in the first, second and third parae, whereas it is on the negative side from fifth onwards. Primigravidae are noted for dystocia of several kinds and the incidence of caesarean section is naturally higher. Second gravidae are known for their good obstetric record. But in this series caesarean section rate is found to be higher in second gravidae also. This is because several of these women who have had a test of labour at home for their first pregnancy and have failed, resort to hospital confinement for their second pregnancy. Most of them are cases of disproportion for which caesarean section ought to have been done in the previous pregnancy itself. In the case of third gravidae also the slight rise in the incidence is explainable in the same way.

TABLE V  
*Indications for Caesarean*

Indications	Present series	
	Number	Percent
Cephalo-pelvic disproportion (C.P.D.)	518	35.7 excluding repeat
Previous Caesarean ..	260	17.9 including disproportion
Placenta previa ..	116	8.0
Malpresentation-position .. ..	95	6.6
Foetal distress ..	81	6.1
Inertia .. ..	78	5.4
Elderly primipara ..	62	4.3
Accidental Haemorrhage	50	3.4
Miscellaneous ..	192	12.6
Total ..	1452	100.0

### Indications

In the majority of the cases the indications for the caesarean section are more than one and often it is undertaken for the sum total of several relative indications. It is comparatively rare to find a caesarean section done for an absolute and single indication like severe cephalopelvic disproportion or major degree of placenta previa. Table V shows the indications for which the present series of caesareans was done. As it is difficult or rather impossible to take into account all the indications for each caesarean section, one which appeared the most important or the primary indication is only taken into account.

### *Cephalopelvic disproportion (C.P.D.)*

Cephalopelvic disproportion is still the most common indication for abdominal delivery; 35.7 per cent of the present series of caesarean sections were done for cephalopelvic disproportion. In our obstetric practice severe degrees of disproportion requiring elective caesarean were comparatively rare and in this series there were only a few such cases. In the large majority of these cases the abdominal route was chosen because of the presence of one or even more additional indications like foetal distress, elderly primigravidity, malpresentation or malposition etc. Repeat caesareans done for disproportion are not included under this group.

### *Previous Caesarean*

Pregnancy following a caesarean is the greatest problem that faces the modern obstetric practice. The

dictum "once a caesarean always a caesarean" is adhered to even to-day in some parts of the world to avoid the danger of rupture of the previous scar during labour. But majority of the modern obstetricians do not believe in anything more than "once a caesarean always a hospital delivery", the choice for elective caesarean or vaginal delivery being made after careful scrutiny of the merits of each case. We belong to the latter group. Previous caesarean is the second commonest indication for our caesarean sections and 17.8 per cent of the present series of caesareans were repeat sections.

*Placenta previa* ranks third in the list of indications for caesarean in the order of frequency and 8.1 per cent of the caesareans were for placenta previa.

#### *Malpresentations and mal-positions*

These form the next most important indication for caesarean in the present series. Breech, shoulder, brow and glabella were the malpresentations in their order of frequency and occipitoposterior was the malposition requiring abdominal delivery. Cases associated with disproportion were included under the indication C.P.D. and all these 95 cases were without any disproportion.

*Post-maturity* remains still a controversial subject both in its recognition as a clinical entity and in its diagnosis and it is not included under the classification of the indications for caesarean section. However, in the present series of caesarean sections, history of prolonged pregnancy was present in many cases

and one would certainly gain a strong clinical impression that prolonged pregnancy is very commonly encountered in this institution.

A series of abnormalities of the following nature were apparent in several cases of these abdominal deliveries. History of prolonged pregnancy i.e. pregnancy continuing weeks beyond the expected date of confinement; no definite disproportion, but head appears as a tight fit for the pelvis; in labour when the pains are either weak or the labour does not progress satisfactorily in spite of normal pains showing signs of obstructed labour; when the membranes rupture the quantity of liquor is scanty and often meconium-stained; foetal distress sets in comparatively early in labour, in many cases before the rupture of membranes and for no apparent reason. On opening the uterus the quantity of liquor is noticeably less and often only thick meconium is seen around the baby. One may be justified in attributing the cause of this combination of abnormalities to prolongation of pregnancy, and considering post-maturity as the primary indication for caesarean section in these cases. However, the data available are insufficient to make any conclusive remarks but sufficient to stimulate one's thoughts and to investigate in this direction.

Under *miscellaneous* indications are included cases of cervical dystocia (31) cord prolapse (27) toxæmia (11) repair of urinary fistulae (10) carcinoma of cervix (8) and diabetes (5).

#### *Maternal and Foetal Prognosis*

It has to be admitted here that the

data available for a study on these lines are very inadequate. Several of our cases are brought to the hospital as grave emergencies and naturally the maternal morbidity and mortality and perinatal mortality would be greatly exaggerated.

given prophylactic antimicrobial drugs during the post-operative period. About 34 per cent of them developed temperature above 100.4°F lasting for more than 24 hours. *Maternal mortality* was in the region of 1.6 per cent and *perinatal mortality* about 11 per cent.

Almost all these patients were