

A STUDY OF PRIMARY CAESAREAN SECTIONS WITH REFERENCE TO GRANDMULTIPARA

by

K. SIKDAR,* M.O., M.R.C.O.G.,

and

S. R. MITRA,** M.B.B.S., D.G.O.

The incidences of caesarean sections are on the increase. However, the operation is not without morbidity. The incidence in grandmultiparae as observed in Eden Hospital has been reported here as grandmultiparity itself is a high-risk obstetrical condition. Grandmulti-

495 (2.84%). One hundred and thirty-one grandmultiparas were delivered by primary sections, i.e. 0.75% amongst all deliveries and 8.99% amongst all primary section (1457).

Results

TABLE I
incidences of Admissions and Primary Caesarean Sections

Parity	Total deliveries	Incidences	Total primary C.S.	Incidences
Total cases	17,416	100%	1,457	8.38%
Young Primi	6,559	37.26%	745	11.35%
Elderly primi (over 30 yrs.)	453	2.49%	132	30.34%
Multiparas	8,873	50.93%	449	5.06%
Grandmultiparas	1,849	10.41%	131	7.13%

para is a woman who has delivered 5 or more viable children (Donald, 1969). They are both dangerous and unpredictable multiparas (Vashistha *et al* 1976).

Material and Methods

In Eden Hospital, from 1-7-76 to 30-6-78, 1952 L.S.C.S. were performed in a total of 17,416 confinements; the rate being 11.22%. Primary sections were 1457 (8.38%) and repeat sections were

The incidence of primary sections in grandmultiparas are somewhat lower than that in young primis (Table I). The high rate amongst grandmultis may be that they seek admission after development of complications or due to disorders present during prepregnant or pregnant states as they avoid antenatal checks-up.

Amongst the 131 grandmultiparas, 79 were below 30 years of age and 52 were above 30 (5 being above 40 years). Mean parity was 6.2; 34 having more than 6 previous full term deliveries. The highest gravidity was 10. All these 131 sections were non-elective, though amongst total 1,457 primary sections, 385

*Registrar.

**Sr. House Surgeon,
Dept. of G. & O. Calcutta Medical College,
Calcutta.

Accepted for publication on 13-2-78.

(26.29%) were elective. Amongst these of grandmultiparas were admitted with 121, 102 sections were done at term, 17 intrapartum sepsis after being badly at 32-36th weeks and 3 after 40 weeks. handled outside.
In 9 cases, gestation period was unknown. The perinatal death rates were 4 times

TABLE II
Indications for Primary Caesarean Section

Principal Indications (Total)	Primigravida (8.77), No. and %	Multi- gravida (4.49), No. and %	Grand multi- gravida (131), No. and %
I. Antepartum Hge (182)	36 (4.33%)	88 (19.6%)	58 (44.2%)
(a) Placenta praevia (154)	28	76	50
(b) Accidental haemorrhage (28)	8	12	8
II. Obstructed labour (721)	430 (49.03%)	238 (53%)	53 (40.4%)
A. Foetopelvic disproportion	291 (33.1%)	86 (18.8%)	25 (19.09%)
B. Malpresentations (198)	72 (8.2%)	110 (24.4%)	16 (12.21%)
(a) Transverse lie (62)	22	34	6
(b) Breech (78)	27	47	4 (2 twins)
(c) Brow, face, glabella (44)	18	23	3
(d) Posterior parietal (5)	2	2	1
(e) Compound (9)	3	4	2
C. Soft tissue dystocia (121) including obstruction	67 (7.7%)	42 (9.3%)	12 (9.1%)
III. Foetal indications (412)	341 (38.8%) (including 80 elderly primi)	85 (18.8%)	16 (12.2%)
IV. Miscellaneous (112) (Medical diseases, Toxaemia P.R.M., Rh in Compatibility etc.)	70 (8%)	38 (84%)	4 (3%)

Table II further, shows that the indication for primary caesarean sections in grandmultiparas differ from primigravidas.

There were 3 maternal deaths amongst these 131, when total 11 maternal deaths occurred amongst all 1457 sections. Two died due to septicaemia and peritonitis and 1 due to septic shock. The M.M.R. amongst 1457 C.S. was 0.8% (11 cases), primigravida 0.46% (4 cases), multigravida 0.88% (4 cases) and grandmultiparas 2.29% (3 cases). These 3 cases

higher in grandmultiparas than primigravidas. In the former, sections were undertaken for maternal rather than foetal causes. The perinatal deaths were 11 (22%) in the group of placenta praevia (50 cases), 3 (37.5%) in the group of accidental haemorrhage (8 cases), 5 (20%) in groups of C.P.D. (25 cases), 6 (57.5%) in cases of malpresentations (16 cases), a (16.6%) in the group of soft tissue dystocia (12 cases), 1 (6.25%) in the group of foetal distress (16) and 2 (50%) in the group of others when 131

TABLE III
Perinatal Mortality in 1457 Sections

Birth weight/kg.	Total	Primi-gravida	Multi-gravida	Grand multi-gravida
2.0 and less	48	18	21	9
2.1 to 2.5	46	14	20	12
2.6 to 3.0 kg.	33	15	11	7
3.1 to 3.5	10	4	5	1
3.6 to 4	5	2	2	1
Total P.N.D.	142	53	59	30
Total C.S. and P.N.M. rate	1457 (9.1%)	887 (4.9%)	449 (13.5%)	131 (22%)

primary C.S. were done in grandmulti-gravidas.

Discussions

There were 10.41% grandmultiparas amongst total deliveries. Oxorn (1955), Dutta (1970), Parikh (1965), Dey and Das (1974), Palanichamy (1976) and Vashistha *et al* (1976) reported the incidences of grandmultiparity in 1.6 to 30.5% cases. Percentages of total primary sections were 8.38 in this series against 7.87 and 119 as reported by Palanichamy (1976) and Vashistha *et al* (1976). The primary section rates in primi and grandmultis in this series were 12.5 and 7.13% respectively. In grandmultis the rate of primary sections varied in between 1.2 to 37.4% in the series of Schram (1954, Barns, (1953), Lal (1972), Chakraborty (1971) and O'Sullivan (1963). In the present series, there were 8.99% grandmultiparas amongst 1457 primary sections against 16.73% amongst 900 cases as reported by Palanichamy (1946). Advancing parity changes the indications of primary sections and maternal indications predominate over foetal causes. Antepartum haemorrhages formed the commonest indication of sections in grandmultiparas.

Placenta praevia was the indication in grandmultipara against 1.1% in primi-38.1% cases in grandmultipara against 3.1% in primiparas. Lal (1972) O'Sullivan (1963, Sen (1967), Vashistha *et al* (1976), Palanichamy (1976), George and Power (1949) Donald (1969), Dey and Das (1974) reported higher incidence of placenta praevia in gandmultiparas. Repeated pregnancy probably favours this condition. Accidental haemorrhage was the indication for 6.1% sections in grandmultis against 1% in primigravida. Palanichamy (1976), Gibbard (1962), Sen (1967) and O'Sullivan (1963) also observed higher incidence of them with advancing parity.

Obstructed labour was the indication for 40.4% sections in grandmultiparas compared to 49.03 and 53% in primi and multigravidas respectively. Evidences of impending rupture was present in 13 (9.9%) amongst 131 cases. C.P.D. was the commonest cause (19.9%) of obstructed labour in grandmultiparas followed by malpresentations (12.2%) which included high percentages of transverse lie. Subclinical osteomalacia, calcium depletion, oversized babies may be some of the causes of C.P.D. as reported by Barns (1953) and Solomon (1934).

Foetal distress was the indication for 12.2% sections in grandmultiparas against 18.8 and 38.8% in primi and multigravidas in this series. Almost similar observations were reported by Sen (1967), Dey and Das (1974) and other workers.

Maternal mortality rate in grandmultiparas in this series was 2.29%. Lal (1963) reported maternal mortality as low as 0.5% to as high as 5.1%. Perinatal mortality rate in grandmultiparas in this series was 22.0% against 4.9 in primigravida. Both higher and lower incidences were reported by various workers. It is to be noted that maternal rather than foetal causes determine the decision of section in grandmultiparas.

Conclusions

Grandmultipara per se is a high-risk factor. Perinatal mortality is higher in those cases.

Acknowledgements

The authors are grateful to the Head of the Dept. of G & O and Principal, Calcutta Medical College, Calcutta.

References

1. Barns, T.: *Edin. Med. J.* 60: 28, 1953.
2. Chakraborty, R. K.: *J. Obstet. Gynec. India.* 21: 16, 1971.
3. Dey, S. R. and Das, R. K.: *J. Obstet. Gynec. India.* 24: 146, 1974.
4. Donald, I.: *Practical Obstetric Problems*, Ed. 4, London, 1969, P-94, Lloyd Luke Limited.
5. Dutta, D. C.: *Cal. Med. J.* 67: 46, 1970.
6. George, J. M. and Power, H. A.: *Am. J. Obstet. Gynec.* 57: 972, 1949.
7. Gibbard, B. M.: *J. Obstet. Gynec. Brit. C'Wlth.* 69: 282, 1962.
8. Lal, K.: *J. Obstet. Gynec. India.* 22: 651, 1972.
9. 'O' Sullivan, F.: *J. Obstet. Gynec. Brit. C'Wlth.* 70: 158, 1963.
10. Oxorn, H.: *Obstet. Gynec.* 5: 150, 1955.
11. Palanichamy, G.: *J. Obstet. Gynec. India.* 26: 374, 1976.
12. Parikh, V. N.: *J. Obstet. Gynec. India.* 15: 573, 1965.
13. Schram, E. L. R.: *Am. J. Obstet. Gynec.* 67: 253, 1954.
14. Sen, S. P.: *J. Obstet. Gynec. India.* 17: 522, 1967.
15. Solomon, B.: *Lancet* 2: 8, 1974.
16. Vashistha, K., Logawney, R. and Gupta, A. N.: *J. Obstet. Gynec. India.* 26: 386, 1976.