

## GRAND MULTIPARA - A MEDICO-SOCIAL PROBLEM

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### SUMMARY

In the present study various socio-demographic factors of 110 grand multiparae were analysed over one year. Out of 10,068 confinements, the grand multiparae contributed an incidence of 1.09% of these 39.2% were in the age group 30-34 years. The Majority (52.7%) of the cases were a para five. The Maximum (56.4%) number of grand multiparae were from a poor economic background (income < Rs. 300 per month), Anaemia (78.2%), Hypertension (10.0%), Antepartum haemorrhage (5.4%), preterm labour (13.6%) were common antenatal complications. One grand multipara having a parity of seven, died due to a ruptured uterus.

### INTRODUCTION

Grand multiparae are considered as those with five or more viable births. Some authors have attributed the term from the fourth viable birth onwards. Whatever the parity may be, a grand multipara is considered as a high risk pregnancy because of increased incidence of disorders like anaemia, hypertension, antepartum haemorrhage (APH), malpresentations and others. Women of

high parity have an increased incidence of maternal and perinatal mortality. In a developing country like India, where poverty, illiteracy, ignorance or lack of knowledge and application of family planning methods have greatly contributed to the high incidence of grand multiparae, these women pose a problem and deserve study from time to time.

### MATERIAL AND METHODS

The study was carried out in the year 1990. A total of 110 grand multiparous cases were collected from the Obst. & Gynae. department of R. G. Kar Medical

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College & Hospital, Calcutta. The criterion for grand multipara was considered as a mother who had previously delivered 5 or more viable births. These comprised the study group. Consecutively other 110 women with parity less than 5 admitted during the same period constituted the control group. Primigravid patients were excluded from the study. Emphasis was laid on detailed history as regards to age group, parity, economic status, religion and medico-social problems. Incidence of maternal complications like anaemia, hypertension, malpresentation, antepartum and postpartum haemorrhage, maternal morbidity and mortality were studied.

## RESULTS

### Socio-demographic factors

During the study period, the total number of confinements were 10,068, with an incidence of grand multipara of 1.09%. In the study group, 29% were booked cases in contrast to 54.5% in the control group. Hindus constituted 76.4% and

muslims 21.8% of the 110 cases studied.

### Medical problems

Incidence of preterm labour was 13.6% (Table IV). Anaemia (78.2%) hypertension (10%), malpresentation (9%), APH (5.4%) were more common in study group (Table V). Maternal morbidity encountered in grand multiparae were definitely higher than in the control group and except postpartum haemorrhage (PPH) all other morbidity was restricted to post operative cases (Table VI).

Table II

Parity distribution in study group

Parity	Number	Percentage
5	58	52.7
6	24	21.9
7	18	16.4
9	5	4.5
9	2	1.8
10 or more	3	2.7

Table I

Age distribution

Age (in year)	Study Group		Control Group	
	Number	Percentage	Number	Percentage
< 20	0	0	10	9.1
20 - 24	11	10.0	37	33.6
25 - 29	27	24.5	42	38.2
30 - 34	43	39.2	15	13.6
35 - 39	25	22.7	6	5.5
40 & above	4	3.6	0	0
Total	110		110	
Mean age $\pm$ SD	31.27 $\pm$ 4.99 years		25.63 $\pm$ 4.94 years	

Table III

Distribution according to the economic status

Economic Status (Rupees per month)	Study Group		Control Group	
	Number	Percentage	Number	Percentage
100 - 199	6	5.5	3	2.8
200 - 299	56	50.9	45	40.9
300 - 499	37	33.6	38	34.5
500 & more	11	10.0	24	21.8

Table IV

Distribution of present pregnancy at confinement

Duration of present pregnancy (weeks)	Study Group		Control Group	
	Number	Percentage	Number	Percentage
28 - 32	3	2.7	2	1.8
33 - 36	12	10.9	8	7.3
37 - 40	91	82.7	94	85.4
41 & above	4	3.7	6	5.5

Table V

Complications during pregnancy

Complications	Study Group		Control Group	
	Number	Percentage	Number	Percentage
Anaemia (< 10 gm%)	86	78.2	64	58.2
Hypertension	11	10.0	6	5.5
APH	6	5.4	3	2.7
Malpresentation and malposition	10	9.0	6	5.4
Multiple pregnancy	3	2.7	2	1.8
Hydramnios	2	1.8	1	0.9
* Associated Medical disease	2	1.8	1	0.9
Utero-vaginal prolapse	2	1.8	0	0

\* Study Group : 1 case pulmonary T.B.; 1 case of Rheumatic heart disease.  
 Control Group : 1 case of Rheumatic heart disease.

**Table VI**  
**Maternal morbidity and mortality**

	Study Group	Control Group
Morbidity :		
PPH	5	2
UTI	6	4
Thrombophlebitis	1	0
Pyrexia	2	1
Puerperial Sepsis	3	2
Mortality :	1	0

### DISCUSSION

Modak and Sikdar (1980) found that the incidence of grand multiparae was as high as 5.1% though in our series it was found to be 1.09%. The probable reasons for grand multipara status revealed that in 55% of cases, lack of contraception with or without family planning knowledge, religious bias or in some apathy towards family size, 25% of the patients wished for a male child or to increase their number and 20% had more than one reasons. In our series 58 patients i.e. 52.7% were of parity five and 2.7% with parity above ten. Isreal & Blazer (1965) found an incidence of 16.8% with parity to or more, where as Modak & Sikdar (1980) found a lower incidence (3.5%). The incidence of anaemia in grand multiparae is variable from series to series. It was as low as 59.6% as reported by Modak & Sikdar (1980) and as high as 87.6% by Bhan & Dhar (1978). In our study the incidence of anaemia was 78.2%. The incidence of malpresentation varies from 7.8% as reported by Nelson

& Sandmayer (1988) to 9% by Dey & Das (1974). In the present series the incidence of malpresentation was 9%. In the study group of our series incidence of hypertensive disorder was 10.0%. This compares well with 11.27% by Isreal & Blazer (1965). In our study APH was found to be 5.4% in the study group of which 3.6% was placenta praevia & 1.8% had accidental haemorrhage. The high parity leads to augmentation of venous drainage from lower portion of uterus and lower placentation (Bieniarz, 1959). Only one grand multi patient ( $p_7$ ) died in our series. Bhatt (1981) found maternal mortality of 2.2% in the same group of patients which was quite high in comparison with overall rates in our country.

### CONCLUSION

Careful obstetric monitoring is needed for grand multiparae as this is associated with anaemia, hypertension, preterm labour, but above all, knowledge of family planning and health education is essential.

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