THE GRANDMULTIPARA—AN OVERVIEW

by

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SUMMARY

Various aspects of 145 grandmultipara patients presenting at the N.W. Maternity Hospital over a 4 year period have been discussed. While it appears that the identification of the grandmultipara as a distinct entity has radically changed the maternal outcome in these patients, the perinatal outcome in the offspring of these women needs to be greatly improved. With available modern means of assessing fetal well-being, this lacuna in management will also be taken care of, in the not too distant a future.

Introduction

The recognition of the grandmultipara as a high risk pregnant woman is a concept which has evolved over the last several decades. Since times immemorial, the grandmultipara has been thought to be a woman well experienced in the phenomenon of parturition, only to be proved wrong time and again. On analysis of their labour records it emerged that there were definite pitfalls in overestimating their obstetric ability and in fact this was a group of women where close antenatal, intranatal and postnatal supervision was warranted.

Material and Methods

The present study is based on the analysis of the case records of women who were para 5 or more over a period of 4 years from January 1981 to December 1984 who came for obstetrical management at the Nowrosjee Wadia Maternity Hospital.

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Discussion of Clinical Material

(1) *Incidence* (Table I)

TABLE I
Incidence
Period of study—January 1981 to December 1984 (4 years)

Total No. of deliveries	35,007
Grandmultiparae	145
Average incidence	0.41%

Yearly Incidence			
1981	1982	1983	1984
0.7%	0.5%	0.4%	0.32%

Out of a total of 35,007 women who delivered at the N.W. Maternity Hospital

during the study period, 145 patients qualified the criterion of being labelled as a grandmultipara thus giving an overall incidence of 0.41%, a dramatic decrease from the incidence of 4.3% as quoted by Israel and Blazar (1965). Analysing the yearly incidence it is seen that the incidence is steadily decreasing from 0.7% in 1981 to 0.32% in 1984. Probable reasons accounting for this decreasing incidence could be:

(a) Widespread propaganda and greater acceptance of National Family Planning Programmes.

(b) Considerable improvement in standards of perinatal medicine contributing to decreasing incidence of bad obstetric history as a cause of grandmultiparity.

(2) *Age and parity distribution* (Table II) which requires close monitoring as advancing age is known to be associated with a higher incidence of both medical and obstetric complications.

TABLE II
Age and Parity

Age in years	No. of patients	Per cent
21 - 25	16	11.0
25 - 29	54	37.2
30 - 35	52	35.9
Above 35	23	15.9
Parity		
Para		
5	85	58.6
6	32	22.1
7	15	10.3
8	13	9.0

Our analysis shows that 48% of our patients attained the grandmultipara status within 30 years of age. Early marriage and childbearing with inadequate spacing between pregnancies are all wellknown factors in the class of patients attending our hospital.

The remaining 52% of patients were more than 30 years of age. This is a group

Analysis of parity distribution shows that while 58.6% were para 5, 41.4% of patients were para 6 or more and this includes 9% of patients who were para 8 or more.

(3) *Probable reasons for grandmultiparity status* (Table III)

TABLE III
Probable Reasons for Grandmultipara Status

1.	None or one living male child	80	55.2%
2.	Previous bad obstetric history (Including perinatal, neonatal, infant deaths)	14	9.7%
3.	Lack of family planning knowledge		
4.	Miscellaneous		

Review of the probable reasons for patients attaining the grandmultipara status reveals that in 80 (55.2%) patients, none or only one living male child was the principal contributory factor. Previous bad obstetric history including perinatal neonatal and infant deaths was responsible in 9.7% of patients, while in the remaining patients, very likely, lack of family planning knowledge, inadequacy of availability of family planning methods, religious bias, or finally, plain apathy towards family size could all have contributed to their attaining the grandmultipara status.

(4) *Antenatal profile* (Table IV)

TABLE IV
Antenatal Complications

Complications	No. of patients	Per cent
Anaemia	71	48.9
Toxaemia	16	11.0
Multiple gestation	6	4.1
Placenta praevia	4	2.8
Rh isoimunisation	3	2.1
Diabetes	1	0.7
Kochs	1	0.7

While adequate antenatal care is still not a practical reality (60% of our registered grandmultipara patients visited us on less than 3 occasions) antenatally the following complications were seen among the registered patients.

Anaemia is the most prevalent and serious disorder which was found in 48.9% of our grandmultipara patients. Most of these women have never fully regained a good blood picture in between pregnancies and so anaemia dogs them from one pregnancy to the other.

The incidence of toxaemia in our series was 11.0% probably because of the fact that with advancing age and increasing parity the cardiovascular system becomes lesser and lesser resilient and therefore hypertensive and associated disorders are more commonly met with (Ian Donald, 1979).

The other complications seen are as listed in the Table.

(5) *Labour profile* (Table V)

TABLE V
Labour Profile

Duration	No. of patients	Per cent
A. *First stage*		
Less than 4 hours	30	20.7
4 - 8 hours	107	73.8
8 - 12 hours	6	4.1
More than 12 hours	2	1.4
B. *Second stage*		
Less than 10 minutes	30	20.7
10 - 30 minutes	91	62.7
30 - 60 minutes	20	13.8
More than 60 minutes	4	2.8

Though traditionally considered to be capable of great treachery during labour, in our series we found that 94.5% of our grandmultipara patients had an unremarkable first stage of labour whose duration was less than 8 hours.

Their performance in the second stage of labour however was not so heartening as in 24 patients (16.6%) it lasted for more than 30 minutes suggesting some arrest of labour in the lower pelvic strait.

(6) *Labour complications* (Table VI)

TABLE VI
Labour Complications

Complications	No. of patients	Per cent
Breech	5	3.4
Oblique lie	3	2.1
Face presentation	1	0.7
Accidental haemorrhage		
(a) Revealed	3	2.1
(b) Revealed + concealed	2	1.4
Postpartum haemorrhage		
(a) Atonic	5	3.4
(b) Retained placenta	2	1.4
Cephalopelvic disproportion	8	5.5
Rupture uterus	0	0

Abnormal presentations as a complication of labour in grandmultiparas (Hermann Ziel, 1962) though supposedly higher were seen in only 6.2% of our patients which is quite compatible with normal incidence.

On the other hand, ante and postpartum haemorrhage were both distinct dangers to which the grandmultiparas are prone to; revealed accidental haemorrhage in 2.1% and revealed with concealed accidental haemorrhage in 1.4% were seen in our group of patients.

With increasing parity the contractile ability of the myometrium is greatly compromised and atonic postpartum haemorrhage poses a grave danger in these patients. Fortunately, keen anticipation and preemption of such an eventuality helped us in decreasing the incidence of post-partum

haemorrhage which was seen in only 7 of our patients.

Relative cephalo-pelvic disproportion inspite of previous normal spontaneous vaginal delivery is also a distinct possibility and was seen in 8 patients in our series, of whom one underwent a lower segment caesarean section and the remaining had a prolonged and tardy labour requiring many a times, assistance in the second stage.

Rupture uterus, formerly an important cause of death in these patients, was fortunately not seen in any of the patients in our series.

(7) *Mode of delivery* (Table VII)

TABLE VII
Mode of Delivery

Mode of delivery	No. of patients	Per cent
Normal	130	89.7
Forceps	4	2.8
Caesarean section	11	7.6
Outcome of labour		
Live birth	135	93.1
Macerated stillbirth	6	4.2
Fresh stillbirth	4	2.7

Analysis of their mode of delivery, reveals that 89.7% of our grandmultiparas had a spontaneous vaginal delivery, 2.8% had a forceps delivery, and 7.6% of our patients were delivered by a caesarean section thus bringing out the fact that given due attention and care, the grandmultiparas can fare as well as the general obstetric population vis-a-vis their intrapartum performance.

(8) *Neonatal profile* (Table VIII)

TABLE VIII
Neonatal Profile

	No. of foetuses	Per cent
A. Weight of foetus		
Less than 2.5 kg	62	42.8
2.6 - 3.0 kg	42	28.9
3.1 - 3.5 kg	32	22.1
Equal to or more than 3.6 kg	9	6.2
B. Neonatal morbidity		
Respiratory distress	17	11.7
Infection	6	4.1
Metabolic	5	3.4

Analysing the neonatal profiles we find that while 42.8% of the babies weighed less than 2.5 kg, 28.3% had a birth weight of more than 3 kg, a significant fact in view of the hospital class of patients who were reviewed.

Neonatal morbidity figures are as outlined in the Table.

(9) *Ultimate analysis*

In the ultimate analysis, it is the maternal and perinatal outcome which determine the effectiveness of any management plan. Though Solomons in the 1930s noted that the maternal mortality rate increased steadily from the 5th to the 10th pregnancy, in present day obstetrics things have drastically changed and it is heartening to note that during the period of study we had no maternal mortality attributable to grandmultiparity. We however did have 6 macerated still births, 4 fresh still births and 4 neonatal deaths, all adding upto a

perinatal mortality rate of 96.55/1000 live births, which is statistically significant as compared to our general perinatal mortality rates during same period.

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