



Original Article

MATERNAL COMPLICATIONS IN GRAND MULTIPARA.

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ABSTRACT

Objective: The objective of this study was to assess the frequency of maternal complications in grand multipara. **Study Design:** Cross Sectional Study **Setting:** Department of Gynecology & Obstetrics at Lique University of Medical & Health Science Hyderabad, Period: October 2011 to September 2012. **Methodology:** 159 patients were scrutinized having history of present pregnancy with particular emphasis on complications such as anaemia, PIH, APH, malpresentation and pre-term labour, admitted through the outpatient department. Detailed Clinical examination of the patient was done. Systemic review was also done to see any co-morbidity. Inclusion criteria were that all patients having history of parity 5 or more, gestational age 28 weeks or greater on ultrasound and age 25 to 45 years. Exclusion criteria were history of parity <5, gestational age less than 28 weeks on ultrasound and H/O trial of labour. Data was analyzed by SPSS version-16 software. **Results:** Total 159 patients were enrolled in this study. The age range was 25 to 45 years. The mean age was 38+ 3.1 years. Mostly patients were para 5 in 42.76 % cases followed by para 6 in 33.33% cases, 19.4% cases in para 7 and 4.4% cases in para 8. Most of the women 55.34% belonged to lower socioeconomic class, 38.36% women belonged to middle class and 6.28% women belonged to upper class. It was observed 28.30% and 50.94% were more in the illiterate and primary educated mothers respectively, while it was 20.75% in higher educated mothers. Maternal complications of grand multiparity were Anemia 23.27% patients, Hypertension in 5.03%, Anemia + Hypertension in 2.51%, Hypertension + Operative Delivery in 6.28%, Anemia + Placenta Abruption in 3.14%, Anemia + Operative Delivery in 6.28% and Anemia + Placental Praevia + Operative Delivery in 6.28%. **Conclusion:** It was concluded that effects of these complications were minimized by good antenatal care.

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INTRODUCTION:

The term grand multipara (GMP), introduced in 1934 by Solomons

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. He described a woman who has undergone at least ten deliveries are called grand multiparas (GMP), as introduced by Silva¹. In developing countries incidence of grandmultiparity (GMP) is between 10%- 30%². While in developed countries, grand multiparity is becoming rare 3-4% of all birth³. In Pakistan incidence of GMP along with its complications is 44% to 56% which is still high^{4, 5}.

Grand multiparity is considered a risk factor for maternal and neonatal morbidity and maternal complications are closely related because of repeated pregnancies and child births⁶. GMP is more in those women who belong to low-socio economic status and with history of previous intra-uterine and perinatal deaths⁷. Intrapartum complications such as placental abruption, dysfunctional labor, operative delivery and postpartum haemorrhage are commonly linked to grandmultiparity⁸. Solomon's called the GMP the "dangerous multipara"⁹.¹⁰. The incidence of grand multiparity is 10-30% but higher rates found in the Muslim countries, where there is poor acceptance of family planning methods. The frequency of many complications associated with GMP increases with maternal age and it is considered a risk factor for maternal and neonatal morbidity¹¹⁻¹⁴.

The known antepartum complications in the grand multiparas are increased risk of miscarriage, anaemia, multiple pregnancy, malpresentation, ante-

partum haemorrhage, preterm labour, even medical complications such as diabetes, hypertension are seen to complicate these pregnancies more than those of lower parity because of increasing age^{5,15}.

However, GMP is risk factor for obstetric complication but recently a few reports have appeared in the literature showing that this might be fiction rather than fact. Toohy et al, Fayed et al and Kaplan et al, addressed the obstetric performance of GGMP but the concluded that such women were not a high risk group. Brunner concluded that grand multiparity should be regarded as an obstetric risk factor, mainly because of the higher frequency of placental complication and with good obstetric care, there should be no advice affects to the mother or newborn. The incidence of grandmultiparity is 44% to 56% due to early marriage, low contraception and lower level of knowledge among disadvantaged women. Fewer studies are conducted in Pakistan on complications of grandmultiparity so the purpose of this study is "to assess the frequency of maternal complications in grand multipara"¹⁶⁻¹⁹.

MATERIAL AND METHODS

The present study consisted of 159 patients. This study was conducted from October 2011 to September 2012 in Obstetrics and Gynecology Department of Liaquat University Hospital (LUH) Hyderabad. Patients fulfill

**TABLE 1
AGE DISTRIBUTION**

Age of patients Years	No. of patients (n=159)	Percentage (%)
25-35 years	57	50%
36-45 years	45	39%

Means Age 38+ 3.1 years

**TABLE NO.2
PARITY DISTRIBUTION**

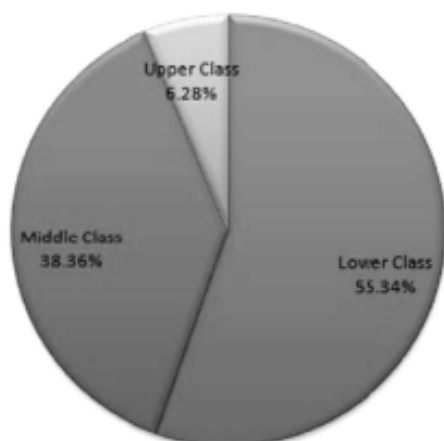
PARITY	No. of patients (n=159)	Percentage (%)
Para 5	68	42.76%
Para 6	53	33.33%
Para 7	31	19.4%
Para 8	7	4.4%

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**TABLE NO.3
GESTATIONAL AGE**

Gestational age	No. of patients N=159	Percentage
37 to 38 weeks	64	40.25%
>39 weeks	95	59.74%

**FIGURE NO.1
SOCIOECONOMIC STATUS**



the inclusion criteria were admitted from the outpatient department and casualty department of LUH Hyderabad. Ethical clearance was sought from the Ethical Review Committee of University. Written informed consent was obtained from all patients. After taking history, detailed clinical examination of the patient was done regarding present pregnancy with particular emphasis on complications such as anaemia, PIH, APH, mal-presentation and pre-term labor. Systemic review was also done to see any co-morbidity. All patients underwent for base line investigations that is CBC and specific investigations especially ultrasound pelvis. All patients having history of parity 5 or more, gestational age 28 weeks or greater on ultrasound and age 25 to 45 years were included. Patients with history of parity <5,

**TABLE NO.4
MATERNAL COMPLICATIONS OF GRAND MULTIPARITY**

MATERNAL COMPLICATIONS OF GRAND MULTIPARITY	NO. OF PATIENTS (n=159)	PERCENTAGE (%)
Anemia	37	23.27%
Hypertension	8	5.03%
Placental Praevia	0	0%
Placental Abruptio	0	0%
Operative Delivery	15	9.4%
Uterine Rupture	0	0%
Anameia + Hypertension	4	2.51%
Hypertension + Operative Delivery	10	6.28%
Anemia + Placenta Abruptio	5	3.14%
Anemia + Operative Delievery	10	6.28%
Anemia + Placental Praevia + Operative Delievery	10	6.28%

gestational age less than 28 weeks on ultrasound and H/O trial of labour were excluded from the present study.

Data was analyzed through SPSS software version 16.0. Qualitative data such as maternal complications, parity, education, socio economic status, nature of

admission, mode of delivery, previous mode of delivery, previous place of delivery and operative delivery are presented in frequencies and percentage. Mean and standard deviation were calculated for quantitative variable is age, gestational age, hospital stay.

Stratification of age, gestational age, mode of delivery and parity were done through categorize to see the effect on these out come variable at 95% confidence level. The p-value ≥ 0.05 considered as significant.

RESULTS

Total 159 patients were recruited. There was wide variation of age ranging from a minimum of 25 to 45 years. The mean age was 38 ± 3.1 years (Table No.1). In our study mostly patients were para 5 in 68(42.76 %) cases followed by para 6 in 53(33.33%) cases. 31(19.4%) cases in para 7 and 7(4.4%) cases in para 8 (Table No.2).

The analysis shows that out of 159 neonates 40.25% cases were between 37 to 38 weeks and 59.74% cases >38 weeks. Gestational age 39.16 ± 2.24 weeks.(Table No. 3).

In our study fetus delivered through vaginal were 135(85%) and through c-section 24(15%). (Figure No.1). Among the vaginal delivery 10% were delivered by assisted vaginal delivery and rest 75% by spontaneous vaginal delivery.

Maternal complications of grand multiparity were Anemia 37(23.27%) patients, Hypertension in 8(5.03%), Anemia + Hypertension in 4(2.51%), Hypertension + Operative Delivery in 10(6.28%), Anemia + Placenta Abruptio in 5(3.14%), Anemia + Operative Delivery in 10(6.28%) and Anemia + Placental Praevia + Operative Delivery in 10(6.28%) (Table No. 4).

DISCUSSION

The historical origins of the term “grand multiparity” are uncertain, and a number of definitions have been used (mostly four or five previous viable births)²⁰. GMP, as per the International Federation of Gynecology and Obstetrics, is the delivery of the fifth to ninth infant, whereas women who are undergoing their tenth (or more) delivery are considered to be GGMP²².

In our study, there was wide variation of age ranging from a minimum of 25 to 45 years. The mean age was 38 ± 3.1 years. However in a study by Omole-Ohonsi A maximum number of patients i.e. 589(48.6%) belonged to 25 – 29 years of age group while 422(34.8%) women were between 30 – 34 years of age, 106(8.7%) women were of 35-39 years and 32(2.6%) women are above age >39 years²³.

In current study 42.76% (68 cases) were para 5 followed by para 6 in 33.33% (53) cases. 19.4% (31)

cases in para 7 and 4.4% (7) cases in para 8. However a study conducted by Kavitha d’Souza were showed in 23% cases in para 6, 33% cases in para 7, 22% cases in para 8 and 11% cases in para 9²⁴.

Grand multiparity is associated with a predominance of low socioeconomic status and poor literacy level, which accounts for the delay in intervention and poor prognosis in the event of complications in this group. These factors can be minimized of by adequate counseling in the antenatal clinic to improve their awareness about the events of pregnancy and labor, and to encourage them to report early in the hospital in the event of any complication or labor.

The present study showed poor educational, nutritional and other health indicators during pregnancy and post natal period in women of lower socioeconomic status as compared to those with upper socioeconomic status. Pakistan is a poor country where about 23% of the population lives below the poverty line. Antenatal care is one of the key strategies in maintaining safe motherhood²⁵.

The results of the present study revealed that abruption of the placenta was common among the grand multiparas 5(3.14%), whereas the occurrence of placenta previa was no documented. Other maternal complications of grand multiparity were Anemia 37(23.27%) patients, hypertension in 8(5.03%), anemia and hypertension in 4 (2.51%), hypertension and operative delivery in 10 (6.28%), anemia and placenta abruption in 5 (3.14%), anemia and operative delivery in 10(6.28%) and anemia, placental praevia and operative delivery in 10(6.28%).

CONCLUSION

The combination of several factors, good antenatal care and delivery services, increased patient’s awareness through adequate counseling, an efficient social welfare service, and an efficient blood banking system, have reduced the pregnancy risks of grand multipara.

Emphasis on qualitative antenatal care and hospital delivery, as well as female education, and acceptance of modern family planning methods to prevent grand multiparity should be intensified in our community, if Millennium Development Goals 4 and 5 are to be achieved.

AUTHORS INPUT

NS: Literature search, professional formation, data collection and analysis, **PC:** Data collection, literature search, **MS:** Study concept, literature search

SA: Literature search

Conflict of Interest: Author declare that no any conflict of interest

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