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GRANDMULTIPARAS;
FREQUENCY OF HYPERTENSION PLACENTAL ABRUPTION AND POSTPARTUM HAEMORRHAGE IN

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ABSTRACT… Intrapartum complications that are classically associated with grandmultiparas include fetal malpresentation, dysfunctional labour, chronic hypertension, abruptio placentae, postpartum haemorrhage and macrosomic babies. Excellent maternal and fetal outcome is possible in grandmultiparas with improvement in health care system and free provision of health facilities to all pregnant women. **Objectives:** The objective of the study was: to find the frequency of hypertension, placental abruption and primary postpartum hemorrhage in grandmultiparas. **Study Design:** It was a prospective study with descriptive pattern. **Setting:** Gynaecology and Obstetric unit-I of Allied Hospital, Punjab Medical College Faisalabad. **Period:** January to June 2006. **Methods:** Eighty patients were included in the study. Eighty grandmultiparas were randomly selected for the study. Detailed evaluation of all patients was done by thorough history, examination and investigation. Patients were analyzed for complications during pregnancy, labour and delivery, especially hypertension, placental abruption and primary post partum haemorrhage. **Results:** Hypertensive disorders found to be in 32 (33.8%), placental abruption in 7(8.8%) and postpartum hemorrhage in 19(23.8%) of grandmultiparas. **Conclusions:** It was concluded from the result of my study that grandmultiparity is still a major obstetric hazard in developing countries like Pakistan with higher incidence of complications. Safe maternal and perinatal outcome is possible in grandmultiparas with improvement in health care system and free provision of health care facilities to all pregnant women.

Key words: Grandmultiparas, hypertension, placental abruption, postpartum haemorrhage

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INTRODUCTION

Grandmultiparous is the term applied to any women having parity more than five. Certain complications during pregnancy, labour and puerperium occur with increased frequency in these women. Pregnancy and delivery in grandmultiparas are at high risk due to poor antenatal care, advancing maternal age and poor socioeconomic status[1]. Essential hypertension is one of the predisposing factors in the development of preeclampsia in grandmultiparas. The incidence of preeclampsia in grandmultiparas is 7.1%[2]. It is the advanced maternal age, genetic predisposition, vascular disease and renal parenchymal disease which plays important role in its development[3].

Abruptio placenta occurs in about 1% of all pregnancies throughout the world[4]. Pregnancy induced hypertension or chronic hypertension causes vascular changes at the placental level that may cause the vessels to be necrotic and split from the decidua[5]. There is a nine fold increased risk of placental abruption in chronic hypertensive patients[6].

Grandmultiparas have almost three times increased risk of having postpartum hemorrhage. Uterine atony is due to decrease in muscular tissue and increase in fibrous tissue is a more common cause[7]. Incidence of postpartum hemorrhage is doubled after placental abruption but after coagulopathy it may be as much as eight times in grandmultiparas than in the general population[5].

These women should be provided the best possible obstetric care and we should be very cautious that we do not increase risk to these women and their babies[9]. Grandmultiparity is still a major obstetric

hazard in our setup with higher incidence of complications. Shorter interpregnancy interval, poverty, poor diet, inadequate health care, religious taboos preventing the use of contraception and increased incidence of age related risks are all that predispose grandmultiparas to increase hazards[1].

MATERIAL AND METHODS

Setup

This study was conducted in the department of Obstetrics and Gynaecology Allied Hospital, Punjab Medical College Faisalabad. Allied hospital is a tertiary care hospital.

Duration

The study duration was six months from January to June 2006.

Study Design

This was a prospective type of study.

Sample size

Eighty patients were included in this study

Sample Technique

This was a non probability convenience sampling technique

Inclusion Criteria

All grandmultiparas booked or unbooked admitted through emergency or OPD were included.

Exclusion Criteria

Grandmultiparas admitted after home delivery Grandmultiparas with multiple gestation

PROCEDURE OF DATA COLLECTION

Eighty grandmutiparas admitted in labour room were randomly selected. Detailed history regarding name, age, sex, socioeconomic class, marital status, gravidity, parity, gestational age and booking status was taken. History of any complications in current pregnancy was inquired like headache, vomiting, blurring of vision, abdominal pain and pervaginal bleeding. Detailed past obstetric history and past medical history was evaluated. General physical examination was done to record pulse, blood pressure, temperature, pallor and edema. Thorough systemic examination especially chest and perabdominal was done to see any scar mark, stria gravidarum, hernia, tenderness, fundal height, lie, presenting part, fetal weight assessment, fetal heart rate. Pervaginal examination was done for bishop scoring and pelvic assessment.

- Routine investigations, blood grouping, Rh factor, CBC, RBS, urine for albumin and sugar were done in all patients. Ultrasonography was done for fetal well being.
- Specific investigations were done only in case of pregnancy induced hypertension, placental abruption and postpartum haemorrhage, like liver function tests, serum urea, creatinine, prothrombin time, serum fibrinogen level and 24 hour urinary proteins.

RESULTS

During six months of study period, nearly 2700 pregnant women admitted in Allied hospital, Faisalabad. Among these hospitalized patients, a random sample of 80 grandmultiparous women was selected for the study. Various factors like booking, socioeconomic class, age, parity, anemia, complications associated with grandmultiparity like frequency of hypertensive disorders, placental abruption and postpartum hemorrhage were studied.

Booking

Out of total 80 grandmultiparous women, only 17 (21.3%) were booked and 63 (78.8%) were unbooked.

Socioecnomic Class

Most of the patients included in this study were of poor socioeconomic class, 57 (71.3%) out of eighty and remaining 23 (28.8%) were belonging to lower middle class. Due to poor socioeconomic conditions and illiteracy, most of women remained unbooked throughout their pregnancy and admitted in the labour wards when labour pains started.

Age

Most of grandmultiparous women in this study were of middle age group (31 to 40 years of age).

- Twenty seven (33.8%) were of age 25 to 30 years.
- Thirty six (45%) were of age 31 to 35 years.
- Seventeen (21.3%) were of age 36 to 40 years. As shown in table III

Parity

The range of parity was para 5 to 9 (91.3%) and para more than 9(8.8%) of total women included in this study. Complications mostly seen were in the women of parity more than ten for example chronic HTN, placental abruption, mal-presentation, obstructed labour and PPH.

Frequency of Hypertensive Disorders In Grandmultiparas

Total number of patients suffering from hypertensive disorders were about 32 (33.8% of total patients). Patients with mild hypertension were 16 (20%) in number and managed conservatively by keeping them under observation. Severe preeclampsia was present in 6 (7.5%) and chronic hypertension in 9 (11.3%) among these 31. Eclampsia was seen only in one patient.

Frequency of Placental Abruption In Grandmultiparas

Placental abruption was seen in about 7 (8.8 % of total grandmultiparas). Mild abruption in 3 (3.8%) and severe abruption in 4 (5.0%).

Frequency of Postpartum Heamorrhage In Grandmultiparas

Frequency of PPH was about 23.8% of total patients. Mild PPH observed in 10 (12.5%) that were managed conservatively by repeat intravenous syntocinon infusion and uterine massage.

Severe PPH observed in 9 (11.3%), where medical management was done successfully except in one patient in which obstetrical hysterectomy performed to stop bleeding.

Booking Status	Frequency	Percent
BOOKED	17	21.3
UNBOOKED	63	78.8
TOTAL	80	100.0

Table-I. Booking status of grandmultiparas

Age	Frequency	Percent
25 to 30 YEARS	27	33.8
31 to 35 YEARS	36	45.0
36 to 40 YEARS	17	21.3
TOTAL	80	100.0

Table-II. Age distribution in grandmultiparas

Type of Hypertension	Frequency	Percent
Non hypertensive	49	61.3
Mild PIH	16	20.0
Severe Preeclampsia	6	7.5
Chronic Hypertension	9	11.3
TOTAL	80	100.0

Table-III. Frequency of hypertension in grandmultiparas

Chi-square value = 58.700

Degree of freedom = 3 P-value = 0.000

Placental Abruption	Frequency	Percent
NO	73	91.3
MILD	3	3.8
SEVERE	4	5.0
TOTAL	80	100.0

Table-IV. Frequency of placental abruption in grandmultiparas

Chi-square value = 120.775

Degree of freedom = 2 P value = 0.000

"Mild abruption means compensated shock without coagulopathy Severe abruption means decompensated shock with coagulopathy"

Postpartum Haemorrhage	Frequency	Percent
NO PPH	61	76.3
MILD PPH	10	12.5
SEVERE PPH	9	11.3
TOTAL	80	100.0

Table-V. Frequency of postpartum haemorrhage in grandmultiparas

Chi square value = 66.325

Degree of freedom = 2 P value = 0.000

"Mild PPH means compensated shock severe PPH means decompensated shock"

DISCUSSION

Grandmultiparity has been considered to be an obstetric hazard both to mother and fetus. Compounding factors which are commonly associated with grandmultiparity in developing countries are low socioeconomic status, poor

family literacy, social deprivation, and lack of health care facilities to all women. However in the developed world due to modern and effective medical care, grandmultiparity is no longer considered to be increasing obstetric complications and perinatal morbidity and mortality.

In my study frequency of hypertension in grandmultiparas was found to be 33.8% of total, out of which mild pregnancy induced hypertension in 16(20%), severe pre-eclampsia in 6(7.5%) and chronic hypertension in 9(11.3%) of grandmultiparas. The results of my study are comparable with the results of the study conducted in maternity hospital kathmandu in which frequency of pregnancy induced hypertension in granmultiparas was 18(16.98%)[9].In another study on grandmultiparas which was conduted in Ayub teaching complex Abbotabad preeclampsia was found in 7.65% and chronic hypertension in 9.8% of grandmultiparas[1]. This result of my study is also supported by the result of study conducted in rural community of Zimbabve, in which they found that grandmultiparas had an increased risk of hypertensive disorders during pregnancy[10]. Similarly studies on grandmultiparas in Saudi Arabia[11] and Sinai school of medicine New York showed an increased incidence of hypertension during pregnancy in grandmultiparous women[12]. While in contrast to my study, at the present time in the United Kingdom most hypertensive women are diagnosed early in the disease process so the incidence of severe disease is reduced.

Frequency of placental abruption in grandmultiparas was found to be 7(8.8% of the total), out of which mild placental abruption in 3(3.8%) and severe placental abruption in 4(5.0%) of grandmultiparas.The result of my study are similar to results of other studies conducted in Pakistan, for example abruptio pacenta was 7.18% in grandmultiparas[13]. In a study conducted in Karachi and 7.07%in Ayub teaching complex Abbottabad. While in contrast to my study regional study from Iraq quotes a figure of 2% for placental abruption[14]. We have a high frequency in pakistan because most of studies conducted in tertiary care hospital and also because of illiteracy our patient have no concept of antenatal checkup so that high risk cases can be detected on time. Study conducted in Jordan University of science and technology also favours my result, they found that placental abruption occurred more in parous women[15].

Primary post partum haemorrhage is not a leading cause of maternal mortality in developed countries but in contrast it is still the leading cause of maternal mortality and morbidity in developing countries. According to my study frequency of primary postpartum haemorrhage in grandmultiparas was 23.8%of the total while mild PPH in 10(12.5%) and severe in 9(11.3%). Mild postpartum haemorrhage was controlled by intravenous syntocinon and uterine massage but in case of severe postpartum haemorrhage, medical management followed by surgical intervention where required were performed for control of postpartum haemorrhage.

The result of my study that is frequency of severe PPH (11.3%) is comparable with the study conducted in maternity hospital Kathmandu,in which the frequency of postpartum haemorrhage in grandmuitiparas was 11.32%[15].However result of my study differ from the result of study conducted in Ayub teaching complex abbottabad in which frequency of postpartum haemorrhage in grandmultiparas was 7.6%[1]. Another study conducted in Carins base hospital, Carins showing frequency of postpartum haemorrhage in grandmultiparas as 9.2% also differ from the result of my study by approximately 2%. In spite of difference, these studies favour that overall risk of postpartum haemorrhage is high in grandmultiparas as compared to women of low parity, so active management of third stage of labour should be done with caution in grandmultiparas. A Nigerian study analyzing cases of postpartum haemorrhage also cited grandmultiparity as a predominant risk factor[16].

By this discussion it is concluded that grandmultiparous women have increased risk of

hypertention, placental abruption and postpartum haemorrhage but there are multiple other factors which are responsible to increase the frequency of these complications in grandmultiparas like increasing age, lack of antenatal care, poor socioeconomic class, illiteracy, and anemia.

In my study, only 17 (21.3%) women were booked and 63 (78.8%) were unbooked further more most of them were belonging to poor socioeconomic group. Out of eighty patients, 57 (71.3%) were in poor category while only 23 (28.8%) belonged to lower middle class. A study was done in Gutu district; found that nulliparous women made greater use of health facilities for antenatal and intrapartum care while grandmultiparous women were less likely to follow antenatal advice[10]. My results are also comparable with the result of study conduted in maternity hospital Kathmandu where they found that grandmutiparity was associated with low socioeconomic status and poorer prenatal care. Grandmultiparas when compared with same age multiparas, appears to have fewer intrapartum complications however they presents several prenatal risk factors that require special antenatal care[18]. In my study it was found that most of grandmultiparas belong to middle age group 31 to 40 years (66.3% were of middle age group and 33.8% between 25 to 30 years).similar age groups are seen in the study of maternity hospital kathmandu. According to that study majority of grandmultiparas (65.1%) were 35 to 39 years, 10.9% were 30 to 34 years, 16.9% were 40 to 44 years and 5.6% were >45 years of age[9]. Analysis of antenatal care shows a distinctly poorer attendance in the grandmultiparous group, 26.4% of this group documenting absolutely no antenatal care while 20.8% with 3 to 5 antenatal visits only[17]. Similarly in the study of Ayub teaching complex most of grandmultiparas 91.3% were of middle age group[1].

So in developing countries like Pakistan, the grandmultiparas therefore continues to be a high risk obstetric factor that requires skilled obstetric care during antenatal, intrapartum and postpartum period. Community awareness, patient education and family planning measures are some of the remedies to improve the maternal as well as perinatal outcome[18].

CONCLUSIONS

In our setup, grandmultiparity continues to be a challenge in obstetric practice with its associated increased likelihood of maternal and perinatal complications. Concerted efforts should be directed to reduce high parity in the community through effective family planning initiatives. Specialized antepartum and intrapartum services should be available to the grandmultiparas. Besides an obstetric risk, grandmultiparity is an indicator of poverty, deprivation and social inequities that the women are facing in the developing world. It is also a reflection of poor female literacy rate and inadequate performance of national family planning and maternal health services.

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"Quality is not an act, it is a habit."

Aristotle

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