ABSTRACT

OBJECTIVE: The objective of this study was to compare pregnancy outcome of women aged 40 & above with those of 20-30 year.

STUDY DESIGN: Cross-sectional and comparative study.

SETTING: Department of obstetrics & Gynecology Peoples University of Medical & Health Sciences Nawabshah.


MATERIAL & METHOD: Consecutive 100 cases of women aged 40 & above and 100 cases of women aged between 20-30 years were included in the study, and labeled as group A & B respectively. All patients were undergone general & physical examination & routine laboratories tests. The biological effects of age on the pregnancy outcome were observed, & results were tabulated.

RESULT: The mean age for case group was 41.56 ± 2.06 & that for control group 25 ± 2 years. Among the maternal complication of increased maternal age were abortion in early half & preterm labor in second half of pregnancy (10%) & (12%) respectively. Hypertension (14%) & Diabetes (9%) were more common than in younger age group. Risk of fetal malformation (11%) was also three fold more than younger group (2%). Increased rate of c-section (6%) was seen more with advanced maternal age with high parity.

CONCLUSION: The advanced maternal age is candidate with high risk of maternal & perinatal morbidity &mortality. Appropriate management can be formulated to ensure better maternal & fetal outcome during pregnancy.

KEY WORDS: advanced maternal age, Maternal outcome, Perinatal outcome.

INTRODUCTION

Since past decades women have been encouraged to delay their 1st pregnancy & some women continue beyond 40 years because of their social, educational & economical factors. With introduction of infertility treatment women of almost all age groups can sustained pregnancy even in post menopausal state. Advanced maternal age has long been considered to be an risk factor for the antenatal complications like preterm labor, pre eclampsia hypertension which may or may not be associated with IUGR, Gestational Diabetes, Ante partum hemorrhage & increased rate of Caesarean section. Many of them experience pregnancy unwillingly because of negligence of using contraceptive method. At the moment 10% of pregnancies occur after the age over 35 years. It has been widely documented that advanced maternal age confers risk to both mother & child health.

Some author have reported no significant difference in obstetric out come & perinatal out come, birth weight & gestational age between older & younger mother but the results are not supported by the other studies.

In Pakistan especially in rural areas mostly women continue their child bearing in advanced age and taking it as norm and avoid contraception due to religious & social influences.

This study was conducted in obstetrics & gynaecology department at Peoples University of Medical & Health Sciences Nawab Shah which encompasses the rural area mostly. The purpose of this study is to observe the different out come of pregnancy at advance maternal age with those of age 20-30 years.

MATERIAL AND METHOD

This study was carried out in department of Obstetric & Gynae Peoples University of Medical & Health Sciences Nawabshah over period of six months from 1st July 2011 – 31st Dec 2011. During study period 100 consecutive cases of aged 40 years (Booked/Un booked) regardless of their parity & gestational age with their previous normal pregnancy outcome were taken & considered as group A & Compared their pregnancy outcome with those ages 20-30 years & labeled as group B. Exclusion criteria are all women above 40 years with Bad obstetrical out come like recurrent miscarriage & peri natal death(still birth & NND) & history of caesarean section, primi para with history of cousin marriage, women with established diabetes, women age <19 years & multiple pregnancy were excluded from the study. All details regarding
mode of delivery as shown in additional risk factors for pregnancy complications & majority of them were unbooked. Advance parity is an mean age for Group A was 41.56 ± 2.06 years & majority of women were included in this study. The data were entered and analyzed in statistical program SPSS version 16.0. Qualitative data were presented as n(%) and chi square test was used to compare the proportions between two age groups. P value < 0.05 was considered as statistically significant level.

RESULTS
Total 200 women were included in this study. The mean age for Group A was 41.56 ± 2.06 years & majority of them were unbooked. Advance parity is an additional risk factors for pregnancy complications & mode of delivery as shown in Table I. Risk of abortion in 1st & 2nd trimester (10 %) likely to depend on other factor along with increasing age of women. Pre term birth (12%) risk was increased with increased maternal age & parity. Medical problem like & Hypertension (14%) & gestational diabetes (9 %) had a positive association with the increasing age . Increased risk of Caesarean Section (6 %) was also seen with advanced maternal age due to complications of pregnancy. Further obstetrical complications like placenta previa & placental abruption had no direct association with increasing age of women in our study (4 %) & (5 %) respectively. Increasing maternal age along with multi parity had become a significant risk factor for high Cesarean Section rate (6 %).

Table I shows perinatal out come. Among perinatal out come, congenital abnormality were (11 %) more than younger age group. low birth weight (14%), Macrocsmic babies (6 %),still birth (13%)& Neo natal deaths(5%) were more than younger age group. Bad perinatal outcome in patient >40 years of age was also attributed to GDM& Hypertension in these women. Among 6 GDM, 4 had macrosomia, 1 stillbirth, 1 NND. Hypertension contributed to 6 low birth weight, 2 still birth & 1 NND.

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DISCUSSION
As an underdeveloped country majority of our population living in rural area where ante natal facilities are not available. Early marriages leading to teen age pregnancies with continuation of child bearing till the extreme of reproductive age would further increase the risk for the adverse obstetrical outcome. Pregnancy rate for women of 40 year & older increased to 38% b/w 1976-197911,12. They have 2-3 fold high risk of morbidity as well as mortality than women in twenties & risk become more dramatic if they are more than 40 year old13.

The recent reports provide the evidence for direct correlation b/w increasing miscarriage as the result of aneuploidy in elder women14. Advance maternal age is the self predictor of miscarriage as seen in our study that the frequency of miscarriage was (10 %) which was higher than younger age group( 5 % ). Low or high parity in extreme of reproductive age is always important regarding obstetrical management as most of multi gravida have risk of pre term & C-
section. Similarly nullipara elderly pregnancies usually have low birth weight even at term. In our study (12%) of preterm were found in multi parous women. The over all frequency of preterm labor was doubled than younger age group (5%) & had an unsatisfactory perinatal out come as it is proven in other studies that maternal age contribute to an increased incidence of preterm labor & delivery. This study showed that both multi parous & nulliparous women aged 40 & older had high risk for cesarean delivery (6%). Possibly due to deterioration of uterine activity with age. Diabetes & hypertension are predisposing factor for macrosomia & low birth weight respectively, are also contributing factor for cesarean deliveries. A low threshold of obstetrician for performing cesarean section in older women referred as "precious baby syndrome" has also been proposed in many reports.

All aging women developed underlying medical problem which may or may not be symptomatic at the time of pre conception. It usually involve the whole metabolic changes that occur in the body causing more vascular resistance, inflammatory response & glucose intolerance may be due to insulin resistance with increasing age. During pregnancy it represent hypertensive crises, IUGR, GDM & Poor perinatal outcome. Medical consultation for their detailed evaluation done.

In our study abruptio placentae (5%) was more frequently seen in older group which could be related to the higher incidence of hypertension in these women which coinceide with other studies. All these patho physiological responses were also deteriorated in our studied population in term of hypertension & gestational Diabetes (14%), (9%) P-Value 0.005, 0.009 respectively, so medical consultation for their detailed evaluation done.

In different studies foetal abnormalities & still birth were twice in aging women than younger women. Similar result was seen in our study. congenital anomalies (11%) was 3 time more common than younger age group (2%) P-Value is 0.10. Our study showed Perinatal mortality (Still birth & NND) is increased in older women this finding is supported by other studies.

CONCLUSION

High incidence of complications such as hypertension, gestational diabetes, placental accidence, cesarean delivery, abortion, pre term birth, congenital anomalies were seen in pregnant women age 40 years & older. Hence appropriate management plan can be formulated to ensure better outcome during pregnancy. Post partum follow up especially for diabetes & hypertension also reduces the risk of complications for future pregnancy.

REFERENCES

Pregnancy Outcome at Maternal Age 40 and Older


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