



Original Article

Foetal and Neonatal Outcome in Elderly Mothers aged 35 Years and above: Comparative Study

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ABSTRACT

Introduction: Many women increasingly delay pregnancy and childbirth into their later decades of life because of different reasons, such as delay in marriage, educational and professional reasons. Advanced maternal age has been regarded as adverse foetal and neonatal outcome in pregnancy.

Objective: This study is aimed at comparing the foetal and neonatal outcomes of pregnancy in women aged 35 years and above.

Methods: Prospective comparative observational study was done over a period of 2 year at the M.M. Medical College & Research Centre, Mullana, Ambala (Haryana) India.

Forty pregnant women of age 35 years and above at any gestational age were taken into the study population irrespective of the parity. Forty control population was pregnant women of age 20-34 years of any parity.

Results: The incidence of low APGAR score at minutes, foetal complications, birth asphyxia, admission to NICU was found to be higher in the study group.. This study did not find any significant difference in mean gestation age, mean birth weight in elderly women. No foetal malformations were seen in both the groups.

Conclusion: Pregnancy in older women seem to have more adverse foetal and neonatal outcome .Women should be informed that the risk of adverse foetal and neonatal outcome increases with age.

Keywords: maternal age, foetal malformation, foetal and neonatal outcome.

INTRODUCTION

Many women increasingly delay pregnancy and childbirth into their later decades of life because of different reasons, such as delay in marriage, educational and professional reasons¹.Advanced maternal age has been regarded as a risk factor for

complications in pregnancy. The association between advanced maternal age and increased risk of chromosomal abnormalities and spontaneous abortion has been well documented in studies^{2,16}. Although a number of studies found an association between delaying child birth and

adverse maternal and fetal outcomes^{3,4,5,6,7,8,15} other studies challenge these findings^{9,10}. As the number of advanced maternal age gravidas continues to grow, obstetric care providers would benefit from up-to-date outcome data to enhance their preconceptual and antenatal counseling. The purpose of this study is to evaluate foetal and neonatal outcome outcomes in advanced maternal age women.

AIM OF THE STUDY

This study is aimed at comparing the foetal and neonatal outcomes of pregnancy in women aged 35 years and above with younger women of age group 20-34 years.

METHODS

Study design: An observational study.

This is a prospective comparative study, done over a period of 2 year and from January 2012 to December 2013 at the M.M.Medical College & Research Centre, Mullana, Ambala (Haryana) India.

Pregnant women of age 35 years and above at any gestational age were taken into the study population irrespective of the parity. The control population was pregnant women of age 20-34 years of any parity, who were registered in the antenatal clinic on the same day as the study cases. This kind of patient selection largely avoided the problem of selection bias.

Study group: n = 40

Control group: n = 40

Women with multiple gestations were excluded from the study, as problems inherent to multiple gestations itself would confound the results.

All these women were followed right from the time of registration to the postnatal period, and perinatal outcomes were compared.

The presence of preexisting medical disorders, incidence of aneuploidy, miscarriage, pregnancy complications like Gestational Diabetes Mellitus, preeclampsia, antepartum hemorrhage, need for labour induction and intrapartum factors like requirement of analgesia, duration of first and

second stage of labour, instrumental deliveries, caesarean deliveries and Post Partum Haemorrhage were recorded.

RESULTS

The mean age of women in study group was 37.3 and 26.5 in the control group

10% in the study group of patients had assisted conception whereas all of patients in the control group conceived spontaneously.

Mean gestational age in study group was 37.7 weeks and 38.0 weeks in control group.

Mean birth weight in study group was 2.70 kg and 2.84 kg in control group.

Low APGAR score at 5 minute was 10(25%) of women in study group and 0(0%) in control group.

Foetal complications were in 2(25%) women in study group and 1(2.5%) in control group.

Birth asphyxia was in 1(2.5%) women in study group and 1(2.5%) in control group.

Foetal malformation was not found in study group and control group.

Admission in NICU was 2(5%) women in study group and 1(2.5%) in control group.

Table 1: Distribution of age

Group	Age	No.	%
Cases	35-39	35	87.5
	>40	5	12.5
Controls	20-25	10	25
	26-29	20	50
	30-34	10	25

Table 2: Distribution of parity

Group	Primigravida	Multigravida
Cases	17(42.5%)	23(57.5%)
Controls	22(55%)	18(45.%)

Table 3: Mode of conception

Mode of conception	Cases(n)	Controls(n)
Spontaneous	36	40
OI with clomiphene	2	0
IUI with clomiphene	2	0
IVF	0	0

Table 4: Pregnancy outcome

Outcome	Cases n (%)	Controls n (%)
Miscarriage	4(10%)	1(2.5%)

Table 5: Foetal and neonatal outcomes

Characteristics	Cases	Controls
Mean Gestation age (weeks)	37.7	38.0
Mean birth weight (kg)	2.7	2.84
Low APGAR at 5 min(%)	10	0
Foetal complications n (%)	2(5%)	1(2.5%)
Foetal malformations	0	0
Still birth n (%)	1(2.5%)	0
Birth asphyxia n (%)	2(5%)	1(2.5%)
Admission in NICU n (%)	2(5%)	1(2.5%)

DISCUSSION

As more women decide on delaying pregnancy, the impact is gaining more relevance than never before. The numerous studies available in literature show varied results on the pregnancy outcomes¹². Fortunately so, most of the studies express optimism, towards delayed childbearing.

This study is a prospective comparative study, with unselected patients with singletons. The results show that the maternal outcomes are favourable. The study group showed a significant difference in the incidence of low APGAR score (<7 at 5 minutes) secondary to placental abruption and meconium passage. But there was no case of perinatal mortality. Joseph et al¹³. reported 46% increased incidence of perinatal morbidity and mortality among women aged >35 years.

Cleary-Goldman et al¹². also reported high perinatal mortality among women aged 40 years and above. The recent studies clearly state that the perinatal complications are more likely even in women without significant pregnancy complications that affect the fetal outcome.

The Indian study by Sahu et al¹⁴., shows significant difference in low APGAR scores at 5 minutes but no increase in perinatal mortality. As rightly said by Joseph et al¹³., older women may take encouragement from the fact that the overall Perinatal Mortality Rates are at their lowest worldwide and also a further lowering can be achieved through lifestyle modification measures.

CONCLUSION

Pregnancy in older women seem to have more adverse foetal and neonatal outcome .Women should be informed that the risk to have more adverse foetal and neonatal outcome with age.

Though there is significant association between maternal age and medical disorders that complicate pregnancy, the perinatal outcomes are optimistic as evident by various larger studies.

The limitation of this study is that the sample size is very small, often insufficient to draw a significant association between age and many other variables like placenta previa, malpresentation, labour induction etc.

The other drawback is that confounding factors like, BMI, parity and socioeconomic status are not well controlled.

The good pregnancy outcomes observed in older mothers even prompted authors like Chan et al¹¹., to suggest that the threshold defining, advanced maternal age be raised to 40 from 35 years.

This kind of optimism is of prime importance in the current era of more and more women electing to delay childbearing. It is appropriate to conclude that elderly mothers with meticulous pre-pregnancy evaluation, prenatal care and surveillance can expect a good perinatal outcome.

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