



PREGNANCY OUTCOME IN ELDERLY MOTHERS

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ABSTRACT

INTRODUCTION: Elderly mothers are those females who have conceived at or after the age of 35 years. Pregnancy after the age of 35 years is well known for its adverse outcome.

MATERIALS AND METHODS: We carried out a retrospective study at KIMS Medical College & PBMH, Bhubaneswar, Odisha, India from August 2016 to October 2017. Women who conceived at or after the age of 35 years and delivered during the above period were taken as study group and those between 20 to 34 years were taken as control group. Pregnancies with a history of prepregnancy medical and surgical disorders and multifetal pregnancies were excluded from the study which have got their own complications and may confound the result. Selected maternal and perinatal factors were taken and analysis of outcome done taking into considerations the selected maternal and perinatal factors.

RESULT: The study group mean age was 37.2 years and that of the control group was 25.3 years. The incidence of hypertension, gestational diabetes mellitus, oligohydramnios, IUGR were more in the study group. The number of Caesarian deliveries were more. So also still births. NICU admissions were also more in the study group. p-values in these cases were below 0.05 and were significant.

CONCLUSION: Analysis of the effects of the age of the elderly mothers on pregnancy outcome, both maternal and fetal, has shown an increased incidence of adverse outcomes. The importance of the study lies in that these women should be counseled and put under close surveillance in order to improve the outcome.

KEYWORDS : Pregnancy outcome, elderly mothers.

INTRODUCTION:

As the super digital world is advancing day by day the females are keeping pace with it by giving importance to education and careers rather than marriage and child bearing. After getting a better education and a carrier, they are rethinking marriage and child bearing. So day by day the number of elderly mothers is increasing.

Aim of the study is to compare the pregnancy outcomes of elderly mothers to that of younger mothers.

MATERIALS AND METHODS:

This was a retrospective study done over a period of 15 months in KIMS Medical College & PBMH, Bhubaneswar, Odisha from August 2016 to October 2017. Those women delivered during this period who were pregnant at 35 years and above were kept in the study group and those between 20-34 years were taken as control group. Women with multifetal pregnancy and prepregnancy medical and surgical problems were excluded from the study as problems inherent to these conditions may confound the results.

The no. of women in the study group – 94

The no. of women in the control group – 1653

The maternal factors which were compared were parity, hypertension, gestational diabetes mellitus, mode of delivery as normal vaginal delivery or caesarean section.

The fetal factors compared were birth weight, fetal growth retardation, birth outcomes (live births and still births) and post delivery admissions to NICU.

Pregnancy induced hypertension is that hypertension that develops after 20 weeks of gestation. When it is associated with proteinuria, it is called preeclampsia and when associated with proteinuria and coma/convulsion it is called eclampsia.

Gestational diabetes mellitus (GDM) is defined as new onset or detection of diabetes during pregnancy.

Mode of delivery was categorized as normal vaginal deliveries and caesarian section.

Intrauterine fetal growth restriction was defined as birth weight < 10th percentile for the gestational age.

Oligohydramnios was defined as amniotic fluid index (AFI) < 5 cm. IUFD was defined as death of fetus in-utero after 28 weeks of gestation. Still births comprise IUFD and fresh still births.

The data analysis was done using the Chi-square test. p-values were calculated. p-value < 0.05 was taken as statistically significant.

RESULTS:

Table 1 shows the mean age and parity of the two groups. The study group's mean age was 37.2 years whereas that of control group was 25.3 years. 25 women out of 94 were primiparous in the study group and in the control group 900 women were primiparous out of 1653.

Table 2 has the comparisons of antepartum complications and modes of deliveries between the two groups. In the study group 26 (27.66%) cases were of PIH and in the control group 40 cases (2.41%) were of PIH. The p-value was significant (< 0.001).

There were 19 cases of GDM (20.21%) in the study group and 30 cases of GDM in the control group (1.81%). p-value was < 0.001 and it was significant.

The no. of cases of oligohydramnios in the study group was 15 (15.95%) and that of the control group was 25 (1.51%). In this case the p-value was significant (< 0.001).

The major mode of delivery in the two groups differed. Study group had more no. of caesarean deliveries than vaginal deliveries (p < 0.001) whereas in the control group vaginal deliveries prevailed over the caesarian deliveries.

Table 3 shows the comparisons of fetal outcomes of the two groups.

.The average gestational age at the time of delivery was 38.2 weeks in the study group whereas 39.3 weeks in the control group. The respective average birth weights were 2.7kg and 2.9kg .

There were 19 cases of IUGR babies in the study group (20.21%) and 40 in the control group (2.41%) with a significant p-value ($p < 0.001$)

The number of still births was more in the study group (5.31%) in comparison to 0.72% cases in the control group for which p-value was < 0.001 and it was significant.

When comparison of the number of NICU admissions between the two groups done, the study group had more no of NICU admissions (21.27%) than the control group (2.29%) .This was significant as p-value was < 0.001 .

Table 1: Mean age and parity distribution in both the groups

	Cases n=94	control n=1653
Mean Age	37.2yrs	25.3yrs
Primiparous	25 26.60%	900 54.45%
Multiparous	69 74.40%	753 45.55%

Table2: Comparison of maternal age and antepartum complications

Variables	Study group n=94	Control group n=1653	p-value
GDM	15 20%	20 1.54%	< 0.001
PIH	20 26.66%	30 2.31%	< 0.001
Oligohydramnios	15 15.95%	25 1.51%	< 0.001
Normal vaginal deliveries	24 25.53%	1025 62%	< 0.001
Caesarian deliveries	50 74.47%	628 38%	< 0.001

Table 3: Comparison of maternal age and fetal outcome.

Variables	Study group n=94	Control group n=1653	p-value
Avg. gestational age	38.2 wks	39.3 wks	----
Avg. birth weight	2.7 kg	2.9 kg	----
IUGR	19 20.21%	40 2.41%	< 0.001
Still births	5 5.31%	12 0.72%	< 0.001
NICU admission	20 21.27%	38 2.29%	< 0.001

DISCUSSION:

There are a great no of studies carried out to know the effects of maternal age on pregnancy outcome. The study revealed elderly mothers had increased incidence of pregnancy induced hypertension. As age advances there was maternal vascular dysfunction and circulatory system fails to adapt high flow, low resistance with the progression of pregnancy. This is similar to that reported by Liux et al. and Khalewad PS et al.

There is an increased incidence of GDM in elderly mothers . This is consistent with a large study carried out at University of Eastern Finland by Ruta Lamminpaa and published on 20th March 2015 by Diabetes Research & Wellness Foundation .This was also observed by Carolon M. et al.

There is an increased incidence of oligohydramnios in elderly mothers with advanced age in our study. Vascular dysfunction with ageing may be the possible cause. This was also reported by Khalewad PS et al. in 2016 and Antsaklis A. et al. in January 2013.

There was no big difference in the gestational age at delivery, APGAR scores and birth weights between two groups but there was an increased incidence of I.U.G.R. babies in this study which is similar to those reported by Odibo AO et al. , Li-Chun Liu et al. , Khalewad PS et al. .The number of still births was significantly higher in the elderly mothers and it was due to increased incidence of medical and obstetrical conditions complicating the pregnancy. This was reported by a large study done by I Jan Hu. There was also an increased number of NICU admissions in elderly mothers. The evidences with the studies done by Bahtiyar et al. , Jacobson et al. and I-Jan Hu.

CONCLUSION:

A large number of studies carried out across the globe agree to the fact that elderly mothers have adverse pregnancy outcomes. The number of elderly mothers is increasing over the decades due to vast social and cultural changes. We cannot dissuade pregnancy in elderly women for adverse pregnancy outcomes. We must provide these elderly mothers comprehensive antenatal, natal and postnatal care for better outcome.

REFERENCE:

- [1] Antsaklis A., Veachos D., Pergialiotis V. .The advanced maternal age primigravida , a case control study in a tertiary centre . Arche of Perinatal Medicine.2013 Jan;19(1):50-54
- [2] Bahtiyar MO., Funai FE. , Rosenberg V et al. Still births at term in women of advanced maternal age in the United states ; when could be the antenatal testing be initiated? Amer J. Perinatol 2008 ; 25:301-4
- [3] Bianco A., Stone J., Lynch L., Lapinski R., Berkowitz G. , Berkowitz R. .Pregnancy outcome at age 40 and older. Obstet Gynecol 1996;87:917-
- [4] Carolon M., Davey MA., Biro MA., Kealy M. Maternal age, ethnicity and gestational diabetes mellitus . Midwifery 2012 Dec 28(6):778
- [5] Giri A., Srivastav VR., Sual A., Tuladher AS. Advanced maternal age and obstetric outcome. Nepal Medical Coll J. 2012;15(2):87-90
- [6] Huang L., Sauve R., Birkett N., Fergusson D., Van Walraven C.(2008) Maternal age and risk of still birth : a systematic review. CMJA 178:165-172
- [7] I Jan Hu , Pau –Chung Chen, Suh-Fong Jeng, Chia Jung Hsieh . A Nationwide Survey of Risk Factors for Stillbirth in Taiwan , 2001-2004 . J. of Pediatrics & Neonatology 2012 April ;53(2):105-111
- [8] Johnson J.A., Tough S. (2012) . Delayed child bearing . J. Obstet Gynecol Canada . 34 : 80-93
- [9] Khalewad PS. , Nadkarni T. The perinatal and maternal outcome in pregnancy with advanced maternal age 35 years and >35 years . Int J. Reprod Contracept Obstet Gynecol . 2016 June ;5(6):1929-35
- [10] Li-Chun Liu , Yu- Chi Wang , Mu-Huisen Yu , Her-Young Su .Major risk factors for still birth in different trimesters of pregnancy – A Systematic review .Taiwanese J. of Obstet & Gynecol. 2014 June :53(2)
- [11] Liux X. , Ruan Y. , Z hang W. Relationship between maternal age and hypertensive disorder of pregnancy . Zhonghua Y., Xue Za Zhi, 2015 Jan 6:19-22
- [12] Odibo AO. , Nelson D. , Stamilo DM. , Macones GA. Advanced maternal age is an independent risk factor for intrauterine growth retardation . American J. Perinato . 2006 Jan ;23(5): 325-328
- [13] Pawde AA. , Kulkarni MP. , Unoni J. Pregnancy in women aged 35 years and above a prospective observational study . J. Obstet Gynecol India, 2015 April ;65(2):93-96