



PREGNANCY OUTCOMES AMONG PRIMIPAROUS AND MULTIPAROUS INCREASING AGE FEMALES.

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ABSTRACT

INTRODUCTION: Increasing age of the mothers is very important risk factor for the outcome of pregnancy. **OBJECTIVE:** To compare and assess the pregnancy outcomes among the primiparous and the multiparous females below and over 35 year of age. **METHODOLOGY:** This research work is a descriptive study conducted at Gynae & Obstetrics ward Civil Hospital Khairpur Mirs Sindh Pakistan during the period from January 2020 to January 2021, which recruited 1021 females having pregnancy and the comparison of the outcomes of pregnancy carried out in four groups of multiparous and primiparous females below and over 35 year of age. SPSS V.20 was used for the statistical analysis of the collected information. **RESULTS:** There was a strong association between age over the 35 years and pre-eclampsia, Cesarean Section, Gestational Diabetes Mellitus, preterm labor, and the low weight at the time of birth in primiparous females. In multiparous females, there was a strong association between age of less than 35 year of age, low weight at the time of birth and pre-eclampsia. Among females over 35 year of age, parity is effectual on measure of delivery through cesarean and pre-eclampsia. **CONCLUSION:** Increased maternal age can be an important factor for the outcomes of pregnancy. There is more affection of age on the primiparous females. Aged females can get normal delivery through vagina with term baby.

KEY WORDS: Cesarean, Gestational Diabetes Mellitus, Pre-eclampsia, Pregnancy, Preterm, Primiparous.

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How to cite this article: Pathan NF¹, Tazeen A², Memon FRB³, Noor B⁴, Naz A⁵, Baloch R⁶
PREGNANCY OUTCOMES AMONG PRIMIPAROUS AND MULTIPAROUS INCREASING AGE FEMALES. JPUMHS; 2021:11:04,28-31.
<http://doi.org/10.46536/jpumhs/2021/11.04.332>

Received MARCH 14 2021, Accepted On 15 December 2021, Published On 31 December 2021

INTRODUCTION

Increasing age of the mothers is very important risk factor for the outcome of pregnancy¹. Increase age of the females have strong impact on the process of pregnancy and labor². In current time, females delay their pregnancies up to 4th and 5th decades of their lives due to various reasons as qualification and occupational reasons or delay in marriages³. Majority of the female's experience pregnancy against their will and due to failed contraception, almost 10.0% pregnancies normally occur at over 35 years of age⁴. According to a research report, the mean age of first marriage has been increased to 4.70 years from 1974 to 1998 and because of this, there is an increase in the mean age of maiden pregnancy⁵. Some research works are available with the claim that midwifery incidents and prenatal mortality are augmented in females with over 35

years of age⁶. The outcome of the research work conducted by Yusuf stated that among primiparous females with over 35 years of age, the rate of Cesarean Section is 2 times higher than multiparous female with above 35 years of age⁷.

It was stated by Camille that the association between the augmented rates of risk of low weight and prenatal mortality at the time of birth. He described the increased age is important risk factor associated with the prenatal death⁸. The Pasupathy Diamentra found that rate of prenatal death is twice higher among the females with greater age at the delivery time⁹. This research work carried out with the rationale to compare and assess the pregnancy outcomes among the primiparous and the multiparous females below and over 35 year of age.

METHODOLOGY

This research work is a descriptive study Gynae & Obstetrics ward Civil Hospital Khairpur Mirs Sindh Pakistan during the period from January 2020 to January 2021. The estimation of the needed samples conducted in every group with 45.0% certainty measure and 80.0% evaluation power. Finally, the estimation of needed samples set as 1021 participants. The volume of samples in every group was completed. The registration card was filled which contained the information about outcome of pregnancy as Cesarean Section, Gestational Diabetes Mellitus, preterm labor, placenta prevail, pre-eclampsia, and low weight at the time of birth. The measured outcomes were compared and assessed in groups of the primiparous females with over 35 years of age with the primiparous females below 35 years of age, multiparous females with over 35 years of age with multifarious females below 35 years of age as well as primiparous females with over 35 years of age with the multiparous females having 35 years of age. All the gathered information was analyzed by SPSS V.20 for statistical analysis.

Ethical Review Committee of the Khairpur Medical College Hospital gave the permission to conduct this research work. **Exclusion criteria:**All the patients suffering from other serious complications as genital infections, having less than twenty years of age, females with habit of cigarette smoking, addicted females or suffering from other heart or kidney diseases were excluded from this research work.

RESULTS

According to data of medical files, there were 250 primiparous females over 35 years of age, 254 primiparous below 35 years of age, 257 multiparous females over 35 years of age and 255 the multiparous

females below age 35 years. A group of 20 to 24 years of age had highest number in group of primiparous females below 35 years and the mean age of these females was approximately 24.020 ± 3.385 years. A group from 25 to 29 years of age was present with highest number of multiparous females below 35 years of age and the mean age of these patients was 26.710 ± 3.761 years. A group from 35 to 39 years of age was with highest number of the multiparous females over 35 years and mean age of these females was 36.810 ± 2.319 years (Table 1).

Approximately 28.20% multiparous females were under 35 years of age, regardless of the increase of Cesarean Section in aged multiparous females, X2 test stated that this increase was much significant statistically. Low weight at birth in the primiparous females more than 35 years was 23.20% in contrast to 11.60 % in the primiparous below the age 35 years. χ^2 test stated a significant association between low weight at birth and the age above 35 years among the primiparous females ($P= 0.0010$) and OR measure displayed that pregnancy in over 35 years of age would rise the danger of low weight at birth about 2.305 times. Approximately 16.80% multiparous females above 35 years might have the low weight at birth, however this number is 9.0% in the multiparous females above 35 years. X2 test found that there might be a significant association between low weight and maternal over age at birth in the multiparous females ($P= 0.0090$). Primiparous labor augments the rate of occurrence of pre-eclampsia 2.218 times and Cesarean Section as 3.771 times higher among aged females. High age of mother can be an important risk factor for the outcome of pregnancy (Table 2).

Table 1. Pregnancy outcomes comparison in the primiparous and the multiparous women (below and above 35 years of age)

Group Pregnancy Outcome	Primiparous		Multiparous		Odds-Ratio (95% CI)	P-Value	X 2
	>35		20-34				
	No	%	No	%			
Preeclampsia	52	20.8	15	5.8	2.335, (7.817-4.272), CI%95	25.69	<0.001
Gestational diabetes	16	6.4	7	2.7	0.995, (6.090-2.462), CI%95	4.031	0.045
Placenta prevail	4	1.6	1	0.4	37.795, (4.195- 0.466), CI%95	*	0.209
Preterm labor	53	21.2	36	13.9	1.047 (2.652-1.677), CI%95	4.699	0.03
Mal presentation	20	8	7	2.8	1.206, (6.997-2.905), CI%95	6.135	2.905
Cesarean	161	64.4	123	47.5	2.000, (2.855-2.855), CI%95	14.74	<0.0001
Low birth weight	58	23.2	30	11.6	1.426, (3.729-2.306), CI%95	12.005	<0.0001

Table 2. Pregnancy outcomes comparison in the primiparous and the multiparous women (above 35 years of age)

Group	Primiparous		Multiparous		P-	Odds-Ratio (95%)	X ²
	No	Percent	No	Percent			
Preeclampsia	52	20.8	27	10.5	0.001	2.218(1.342,3.665)	10.092
Gestational diabetes	16	6.4	13	5.1	0.522	1.273(0.599,2.704)	0.409
Placenta prevail	4	1.6	5	2	1	0.813(0.217,3.076)	*
Preterm labor	53	21.2	44	17.2	0.252	1.290(0.827,2.012)	1.314
Mal-presentation	20	8	13	5.1	0.189	0.536(0.211,1.367)	1.729
Cesarean	161	64.4	83	32.4	<0.0001	3.771(2.609,5.448)	51.802
Low birth weight	58	23.2	43	16.8	0.072	1.489(0.959,2.313)	3.246

*Fisher test

DISCUSSION

The findings of this research work showed that 20.80% primiparous females with over 35 years of age had pre-eclampsia whereas this rate was 5.80% among females under 35 years of age. X² test displayed that there is strong relation between age over 35 years and presence of pre-eclampsia among primiparous females. Jacobson has stated that there was an increase in the occurrence of severe preeclampsia with the increase in age but there was a decrease in the mild pre-eclampsia¹⁰. There is no acknowledged cause for this contradiction. Shiner has stated that 6.40% primiparous females over 35 years of age, suffering from gestational diabetes mellitus, although this amount is 2.70 among primiparous females with under 35 years of age¹¹. The results of this research work stated that in primiparous females over 35 years of age, 1.60% females were present with placenta Previa, where the rate of this complication is 0.40% for females below 35 years.

In this research work, Fisher test stated that there is no association between age of the females over 35 years and placenta Previa among primiparous females. This similar finding is also outcome of one other research work. It was stated by Michael that there strong association is not present between the measures of over age and Placenta Previa of females¹². The results of this research work stated that the placenta previa measure among the multiparous females over 35 years of age was 20.0% but this rate was nil among the multiparous females with below 35 years of age. The results of this current research work state 17.20% multiparous females with over 35 years have had preterm labors however this measure was 9.0% among the multiparous females below 35 years of age. ÷2 test stated that there was a strong association between preterm labor and age above 35 years. OR volume showed pregnancy in age of below 35, enhances the danger of preterm labor for 2.1030 times. Temmerman also stated the strong association between increasing age of mothers and preterm labor.

This current research work have displayed that rate of occurrence of improper presentation among the primiparous females above 35 years in 8.0% in contrast to 2.80% in females below 35 years, 5.10% the multiparous females above 35 years of age were present with mal-presentation which was 2.70% in females below 35 years.

CONCLUSION

The findings of this research work showed that pregnancy would enhance the danger of Cesarean Section in the primiparous females above 35 years of age. The major fact is that over age females might have normal delivery through vagina with term baby and over age females must not be contraindication for the pregnancy.

CONSENT

It was taken and preserved.

ETHICS APPROVAL: The ERC gave ethical review approval

FUNDING: The work was not financially supported by any organization. The entire expense was taken by the authors

ACKNOWLEDGEMENTS: We would like to thank the all contributors and staff and other persons for providing useful information.

AUTHORS' CONTRIBUTIONS: All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated in the work to take public responsibility of this manuscript. All authors read and approved the final manuscript.

CONFLICT OF INTEREST: No competing interest declared.

REFERENCES

1. William M, Gilbert M, Thomas S, Beat D. Childbearing Beyond Age 40. The American College of Obstetricians and Gynecologists. J Obstetric Gynecology 1999; 93:9-14.
2. Obey S, Armijo O. Advanced maternal age and pregnancy. West Afro Med 1995;14(4):198- 201.
3. Statistical Center of Iran. Estimation of fertility level and pattern in Iran: Using the own- children method, 1972-1996. Tehran: Statistical Center of Iran [in Persian]; Ministry of Health and

- Medical Education. 2000. Iran demographic and health survey (IDHS), Tehran: Ministry of Health and Medical Education.
4. Gary C, Kenneth J, Steven L, Bloom J, Katharine D. Williams Obstetrics: WB Saunders 2005;11:230-229.
 5. Nooritajer M. Pregnancy outcome in women beyond age 35 Mahtab publisher. 2008;96-100.
 6. Yusuf E, Peter M. High delivery intervention rates in nulliparous women over age 35. J Obstetric Gynecology 1995;62(2):203-207.
 7. Temmerman H, Verstraele G, Martens A. Childbearing and maternal mortality. E J Obstet t and Gynecol 2004;12:19-22.
 8. Camille H, Sarah J, Jena C. Pregnancy at or beyond age 40 years is associated with an increased risk of fetal death and another adhered outcome. Is J Obstetric Gynecology 2007;21:11-13.
 9. Dhaindra P, Wood AM, Pell JP, Fleming M, Smith GC. Rate of and factors associated with delivery related prenatal death among term infants in Scotland. JAMA 2009;302(6):660- 668.
 10. Jacobs Son B, Ledford L, Milson I. Advanced maternal age and adverse prenatal Outcome. Obstetric Gynecologic 2004;104(4),727-733
 11. Shiner E, Shoham V, Ardi I, Halleck M, Hider A. Placental abruption in term pregnancies: clinical significance and obstetric risk factors. J Maternal Fetal Neonatal Med 2003;112:45-49.
 12. Michael D, Imam A, Fatima A, Asiya T. The reproductive Performance of women at 40 years and over. European J Obstetrics Gynecology and Reproductive Biology 2006;126:33-38.



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