ORIGINAL ARTICLE

Annals of Punjab Medical College

Comparison of Complications Between Teenage and Elderly Gravida

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ABSTRACT

Objective: To compare the complications in teenage and elderly gravida. **Study Design:** Cross-sectional study. **Settings:** Gynecology and Obstetrics, Lady Aitchison Hospital, Lahore-Pakistan. **Duration:** One year from January 01, to December 31, 2018. **Methodology:** In this study the cases that had pregnancy and age was below 20 years were labelled as teen age pregnancy and those with age 20 to 40 and had pregnancy were labelled as elderly pregnancy. These cases were then followed monthly for various outcomes till delivery and 6 weeks post-partum. Both maternal and fetal outcomes were assessed. **Results:** In this study there were total 100 cases, 50 in each group. The mean age in group A and B was 18.31±1.11 vs 29.39±4.05 years. There were 49 primigravida in teenage group and 08 in elderly group. The most common complication was PROM seen in 11 (22%) vs 5 (10%), followed by pre term labor seen in 11 (22%) vs 4 (08%) cases in teen vs elderly pregnancy with p values of 0.01 each. **Conclusion:** Complication rates are higher in teen age pregnancy group and the significantly higher number of complications are PROM and pre terms labor.

Keywords: Teenage gravida, PROM, Preterm labor.

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Submitted for Publication: 30-08-2019 *Accepted for Publication: 13-04-2020*

Citation: Maqsud M, Tufail N, Ayyub N, Tahseen H, Rai AF. Comparison of Complications Between Teenage and Elderly Gravida. APMC 2020;14(2):157-9.

DOI: 10.29054/APMC/2020.347

INTRODUCTION

Teenage pregnancy is a worldwide problem and pregnant teenagers are considered to be a high-risk group despite the conflicting evidence. Teenage is considered as the age range of 15-19 years and this is the transition period from childhood to adulthood during which sexual activity may take place and the teenagers might consider themselves as grown up individuals and mature enough to undergo sexual activity. This is considered the time where there is lack of awareness regarding the unseen complications regarding unplanned pregnancy and sexually transmitted diseases and in developed countries about 90% of the pregnancies occur in the teenage group.[1,2]

It has serious implications on maternal and child health especially in developing countries. Child marriage and teenage pregnancy is widespread in Pakistan as well. Using data from the Pakistan Demographic and Health Survey for 2006-07, it is found that over 50% of the ever-married women in Pakistan were married before they turned 18 years.[3,4]

Studies from developed and developing countries regarding teenage pregnancy outcomes reveal an increased risk for various obstetrical and neonatal complications i.e. pre-term delivery, anemia, pregnancy related hypertensive disorder, low birth weight (LBW), and neonatal mortality. The relation between teenage pregnancy and small for gestational age (SGA) has also been reported. Depression, anxiety and induced abortions are common among adolescent pregnant patients. The independent effect of maternal age on the frequency of preterm delivery, low birth weight and neonatal mortality could nevertheless be significant when age at first childbirth falls below 16 years. However, after controlling the effect of socioeconomic confounders, most of the other studies found no increased obstetric and child health risks among teenagers compared to the adult mothers. These obstetric outcomes between teenage and adult mothers for the developed world are partly related to important advances in obstetric care and social contexts of pregnancy.[5-7]

Objective: To compare the complications in teenage and elderly gravida.

METHODOLOGY

Study Design: Comparative cross-sectional study.
Settings: Department of Gynecology and Obstetrics, Lady Aitchison Hospital, Lahore Pakistan.
Duration: One year from January to December 2018.
Sample Technique: Simple purposive sampling
Sample Size: Sample size was calculated as 100 (50 in each group).
Inclusion Criteria:
Age 20-40 years
Singleton pregnancy
Exclusion Criteria:
Documented cases of anatomical uterine anomalies
Documented cases of fetal anomalies
Documented cases of end stage liver, renal or cardiac failure
Methods: In this study the cases that were pregnant and the age was below 20 years were labelled as teenage pregnancies, and those with age 20 to 40 and were pregnant were labelled

as elderly pregnancy. These cases were then followed monthly for various outcomes till delivery and 6 weeks post-partum. Both maternal and fetal outcomes were assessed.

Statistical Analysis: The data was entered and analyzed by SPSS-version 23.0. Chi square test was applied for data stratification and p value less than 0.05 was taken as significant.

RESULTS

In this study there were total 100 cases, 50 in each group. The mean age in group A and B was 18.31±1.11 vs 29.39±4.05 years respectively. There were 49 primigravida in the teenage group and 08 in the elderly group as shown in table 1.

Table 1: Demographics (n= 50 each)

Variables	Teenage	Elder
	Mean ± SD	Mean ± SD
Age	18.31 ± 1.11	29.39 ± 4.05
Variables	Frequency	Frequency
Primigravida	49	08
Multigravida	01	42
Educated	4	10
Uneducated	46	40
Rural	50	36
Urban	0	14

The most common complication was PROM seen in 11 (22%) vs 5 (10%), followed by pre term labor seen in 11 (22%) vs 4 (08%) cases in teen vs elderly pregnancy with p values of 0.01 each. There was no significant difference in terms of pre-eclampsia, SGA, IUD and placental abruption. Table 2

Table 2: Comparison of complications

	Group		P-value
	Teenage	Elderly	
PROM	11 (22%)	5 (10%)	0.01
Pre term labor	11 (22%)	4 (08%)	0.01
Pre-eclampsia	10 (20%)	7 (14%)	0.46
SGA	9 (18%)	6 (12%)	0.67
IUD	2 (4%)	2 (4%)	1.0
Placental abruption	2 (4%)	1 (2%)	0.46

DISCUSSION

Pregnancy is one of the most important periods in a woman's life and is accompanied with significant physiological changes, comparable to a tsunami for the body. Many different factors can influence the process of pregnancy and consequently the outcome. Maternal age, parity, and socioeconomic factors are among these important factors. Other factors, including bleeding at the first months of pregnancy, maternal BMI (body mass index), and maternal disorders before entering pregnancy influence pregnancy outcome. Among these factors, maternal age is one of the well-known influential factors, and for many years it was hypothesized that young maternal age or teenage pregnancy is accompanied with poor pregnancy outcome.[8-9]

In the present study where we compared these two modalities and it was seen that the most common complication was PROM seen in 11 (22%) vs 5 (10%), followed by pre term labor seen in 11 (22%) vs 4 (08%) cases in teens vs elderly pregnancy with p values of 0.01 each. These results were comparable to the findings of the studies done in the past. According to a study conducted in Pakistan by Sarwar A et al, the rate of these obstetrical complications in teenage versus elderly primigravida were seen i.e. Anemia (58% vs 43%), pregnancy induced hypertension (10% vs 3%), preterm delivery (20% vs 10.5%) and low birth weight 23% vs 10.5%).[10]

According to another study by Masoumi et al PROM was seen in 22.9% vs 31.8% where this was more common in elderly cases with p= 0.002 and similarly pre term births were seen in 17.3% vs 27.8% of the cases of elderly pregnancy.[11]

A study in India showed that the incidence of teenage pregnancy was 10%, which is similar to the present study. That study compared pregnancy outcome between women aged ≤19 years old and women aged 20 to 35 years. They found higher rates of anemia, preterm labor, gestational hypertension, and LBW in teenagers. The authors proposed that good prenatal care and delivery in the hospital can reduce the risks of pregnancy in teenagers, making them comparable to pregnancy in older ages.[12]

CONCLUSION

Complication rates are higher in teenage pregnancy group and the significantly higher number of complications are PROM and pre terms labor.

LIMITATIONS

The study was not confabulated against various confounders.

SUGGESTIONS / RECOMMENDATIONS

Future studies can be done with relatively larger sample size and to assess for more outcomes.

CONFLICT OF INTEREST / DISCLOSURE

There is no conflict of interest.

ACKNOWLEDGEMENTS

We acknowledge the participation of all junior doctors in helping with data collection.

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AUTHORSHIP CONTRIBUTION

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Nazia Tufail	Data Analysis
Nazia Ayyub	Data Collection
Huma Tahseen	Proof Reading
Aliezeh Fatima Rai	Data Collection