

FETAL OUTCOME IN PREGNANT WOMEN WITH BODY MASS INDEX MORE THAN 25.

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ABSTRACT:

BACKGROUND: When there is a sudden miscarriage that is the most widely recognized intricacy of pregnancy cause the imperishable anxiety in couple which are mentally prepared for a child.

OBJECTIVE: The objectives were to determine the maternal and neonatal outcome after previous spontaneous abortion. **METHODOLOGY:** A six month Cross sectional study was done at the Department of Obstetrics and gynaecology department of Peoples Medical University & Hospital Nawabshah during the time period of 1st January 2018 to 30th June 2018. A total of 246 women with history of spontaneous abortion were included in this study. Detailed History was taken from all the patients with special regard to spontaneous abortions. All of the patients entered the study during the first trimester and was followed until delivery. All the record was entered into Proforma. **RESULTS:** The average age of the women was 25.90±4.51 years. Maternal morbidity like premature rupture of membrane 11.8%, antepartum hemorrhage 8.5%, recurrence abortion 5.3%, intrauterine fetal death 5.3%, cesarean delivery 66.7%, instrumental delivery 10.2%, placenta previa 8.9%, preeclampsia 7.7% and eclampsia was observed in 6.1% women. Regarding neonatal outcome, there were 37% low birth weight (<2.5), 4.1% gross congenital anomaly, 40.2% low apgar score (≤6), 4.1% breech presentation, 46.7% preterm delivery, 44.3% NICU Admission and 2% perinatal mortality. **CONCLUSION:** from this study it is concluded that the future pregnancy is always at higher risk if woman has previous unsuccessful past obstetric history so prenatal care is needed in future.

KEY WORDS: Antepartum Hemorrhage, Recurrent Abortion, Spontaneous Abortion.

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INTRODUCTION

When there is a sudden miscarriage of a child that is the most widely recognized intricacy of pregnancy cause the imperishable anxiety in couple which is mentally prepared for a child. There is a need of research on this topic to find out the adverse outcome on the next pregnancy¹. Spontaneous loss of pregnancy is a typical event, occurring in about 8 % to 20% of recognized pregnancies. About 80% of spontaneous pregnancy losses occur in first trimester².

Women feel complete herself when they conceive the child. Pregnancy should be considered a unique normal physiological episode in a woman's life. However in some cases many twists and turns occur which alter the good outcome of pregnancy into a disaster. Those female who have the previous history of unsuccessful outcome, these female not emotionally stable in the next pregnancy.^{3,4} Research into the reproductive consequences of miscarriage presents a number of challenges⁵. The definite cause for previous spontaneous

abortion cannot be identified in about 50% of cases in spite of thorough investigations^{6,7}. The main causes for abortions include chromosomal abnormality, anatomical defect, hormonal abnormalities, genetic anomalies and thrombophilia. Previous unsuccessful obstetrical history increase complication in future pregnancy, such as abortion in early days of gestation, preterm delivery, IUDS in women. These factors must be considered when choosing for antenatal work-up and administration of pregnancy in those patients which have a past history of sudden abortion.⁸ Studies have reported a favorable outcome in 70 -80% cases of abortion with tender loving care⁹. The chances of the premature birth of the baby increase in the future pregnancy when there is a previous history of abortion due to any cause such as chromosomal defect, any change in the anatomical appearance of the baby, baby with low weight, Apgar scores less than the normal range⁷⁻¹⁰. Down syndrome or due to any limitation in the uterus that limit the growth of the fetus¹⁰.

The rationale of this study is that in our set up the population at risk can be identified and general awareness about the problems /outcome in the suspected population can be improved with the counseling and proper treatment. To identify and the treatment of the risk factor, optimize the mental and physical health. Provide folic acid and nutritional supplementation in the periconception period.

DATA COLLECTION AND DATA ANALYSIS:

A six month Cross sectional study was done at the Department of Obstetrics and gynaecology department of Peoples Medical University & Hospital Nawabshah during the time period of 1st January 2018 to 30th June 2018. A total of 246 women with history of spontaneous abortion were included in this study. Detailed History was taken from all the patients with special regard to spontaneous abortions. All of the patients entered the study during the first trimester and was followed until delivery. All the record was entered into Proforma. Different frequencies and percentages were calculated. Mean and SD was calculated for age of patient and gestational age. Data was analysed through spss version 22.

RESULTS:

A total of 246 women with history of spontaneous abortion were included in this study. The average age of the women was 25.90±4.51 years shown in table 1, The average gestational age was 36.45±2.22 weeks as shown in table 2, The educational status were shown in table 4, and socio economic status of the patient is shown in figure 2, Out of 246 women, 18 patients (7.32%) used different contraceptive methods for period of one to two years showing in figure 1, Maternal outcome after previous spontaneous abortion are presented in table 4. Maternal morbidity like premature rupture of membranes was 11.8%, antepartum hemorrhage was 8.5%, recurrence abortion 5.3%, intrauterine fetal death 5.3%, cesarean delivery 66.7%, instrumental delivery 10.2%, placenta previa 8.9%, preeclampsia 7.7 and eclampsia was observed in 6.1% women. Regarding neonatal outcome, there were 37% low birth weight (<2.5), 4.1% gross congenital anomaly, 40.2% low apgar score (≤6), 4.1% breech presentation, 46.7% preterm delivery, 44.3% NICU Admission and 2% perinatal Mortality are presented in table 5. Regarding consanguinity 51% of the patients had history of consanguineous marriage, while 49% patients having non consanguineous marriage, regarding parity majority of patient belong to para 2-4 and small percentage fall in 5-8.

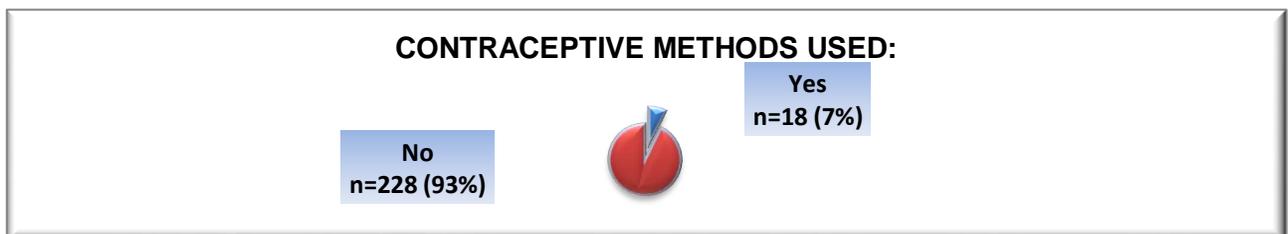
Table_1 AGE DISTRIBUTION OF THE PATIENTS (n=246)

Age	<=20	21-25	26-30	>30
Patient	25	105	81	35
Percentage:	10%	43%	33%	14%

Table_2 DESCRIPTIVE STATISTICS OF CHARACTERISTICS OF PATIENTS (n=246)

Variables	Mean (S.D)
Gestational Age (Weeks)	36.45 + 2.22
Age (Years)	25.9+4.51

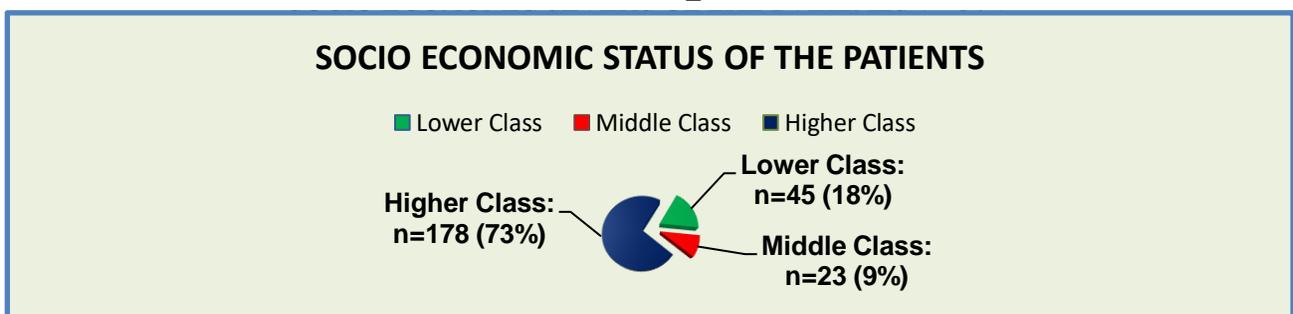
FIGURE 1: CONTRACEPTIVE METHODS USED (n=246)



Table_3: EDUCATION STATUS OF THE PATIENTS (n=246)

	Literate	Primary	Secondary / Intermediate	Graduate
No.	35	49	83	79
%	14%	20%	34%	32%

FIGURE_2:



Table_4: Maternal Outcome:

Maternal Morbidity	Frequency	Percentage
Cesarean Delivery	164	66.7%
Instrumental Delivery	50	20%
Premature Rupture of Membrane	29	11.8%
Placenta Previa	22	8.9%
Antepartum Hemorrhage	21	8.5%
Preeclampsia	19	7.7%
Eclampsia	15	6.1%
Recurrence Abortion	13	5.3%
Intrauterine Fetal Death	13	5.3%

Table_5: Neonatal Outcome

Perinatal Outcome	Frequency	Percentage
Preterm Delivery	115	46.7%
NICU Admission	109	44.3%
Low Apgar Score (≤ 6)	99	40.2%
Low Birth Weight (< 2.5)	91	37%
Gross Congenital Anomaly	10	4.1%
Breech Presentation	10	4.1%
Perinatal Mortality	5	2%

Table_6: Consingenuous Marriages

Total No. of Patients	Consingenuous Marriage	Non – Consingenuous Marriage
246	125	121
100%	51%	49%

Table 7: Parity Distribution

Parity	1 – 4	5 – 8
No. of Patients	231	15
Percentage	93%	7%

DISCUSSION:

Sudden abortion or miscarriage is “the spontaneous end of a pregnancy at any stage where the embryo or fetus is incapable of surviving independently”. The National Centre for Health Statistics, CDC and the WHO defines miscarriage as end of a pregnancy prior to 20 weeks of gestation or with the fetus being born weighing less than 500grams^{11,12}. However the definition by gestational age varies by country. The exact number of cases of sudden abortion in the general population is not known. Early pregnancy is confirmed by the beta-human chorionic gonadotropin in the serum, sometime early detection of pregnancy was written off as prolongations of the menstrual cycle. According to the medical terminology the loss of pregnancy before the six weeks of gestation since the last menstrual period are termed as early pregnancy loss or chemical pregnancy¹² or chemical pregnancy. As the week of pregnancy increases the chances of sudden abortion are decreasing, mostly after the 10th week of gestation the chances of sudden abortion are decreasing. In this study the average age and gestational age of the women was 25.90±4.51 years and it is comparable with Pillai et al study¹³. In this study the mean age was 27.8 years.

The caesarean section rate was higher in the present study was 66.7% as compared to other studies. As the number of caesarean section increased as 66.7% in conclusion the total number of the patient about 8.9% having the major degree placenta previa at term, 6.1% with the eclampsia, 7.7% pre-eclampsia, 4% with the

breach presentation at term and the babies delivered with distress was 40% all these are operative deliveries because of obstetrical causes same percentage of caesarean section has been done due to maternal fear about the adverse pregnancy outcome and some percentage of caesarean section was due to the obstetricians fear due to non availability of continuous CTG monitoring and fetal blood sampling during labour so same are the obstetrical reason and some of the maternal and obstetrician fear that increases the ratio of caesarean section.

Present study has shown the incidence of pre-eclampsia was 7.7% and eclampsia was observed in 6.1%. S. Bhattacharya^[14] et al in 2008 studied the obstetric outcome in women with one miscarriage and observed a high risk (4.4%) of preeclampsia in those with one miscarriage.

Regarding neonatal outcome, there were 37% low birth weight (< 2.5), 4.1% gross congenital anomaly and 40.2% low Apgar score (≤ 6), 4.1% breech presentation. In the present study the rate of pre-term delivery was found 46.7%. Those females who have not successful previous obstetrical history, it is difficult to describe the increased risk of sudden abortion in these females.¹⁵⁻²⁰ It is possible that this may be linked to the surgical management (D&C) of previous incomplete abortion. In the present study the incidence of NICU admission was 44.3%.

CONCLUSION

From this study it is concluded that the future pregnancy is always at higher risk if woman has

previous unsuccessful past obstetric history so perinatal care is needed in future.

ETHICS APPROVAL: The ERC gave ethical review approval

CONSENT TO PARTICIPATE: written and verbal consent was taken from subjects and next of kin

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CONFLICT OF INTEREST: No competing interest declared.

REFERNCES:

1. Kashanian M, Akbarian AR, Baradaran H, Shabandoust H. Pregnancy Outcome following a Previous Spontaneous Abortion (Miscarriage). *Gynecol Obstet Invest* 2006; 61:167–170.
2. Rama CH, Kande AP. An Obstetric Outcome After Previous Spontaneous Abortions. *Indian J Applied Research* 2015;5(5):19-24.
3. Chandna A, Sood A, Mittal R, Soni S. A study on pregnancy outcome following previous one spontaneous abortion. *Int J Reprod Contracept Obstet Gynecol* 2015;6:1879-81.
4. Chalana H, Sachdeva JK. A study of psychiatric morbidity during second trimester of pregnancy subsequent to abortion in the previous pregnancy. *Asian Journal of Psychiatry*. 2012;5:215-19.
5. Swingle MH, Colaizy TT, Zimmerman MB, Morriss FH. Abortion and the risk of subsequent preterm birth, a systematic review with meta-analyses. *The J of reprod med* 2009; 54(2) 95-108.
6. Agrawal S, Agrawal V, Suhane R. Pregnancy outcome following spontaneous abortions. *Int J Reprod Contracept Obstet Gynecol* 2015;4:1891-3.
7. Sheiner E, Levy A, Katz M, Mazor M. Pregnancy outcome following recurrent spontaneous abortions. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2005;118:61–5.
8. Agrawal S, Khoiwal S, Jayant K, Agarwal R. Predicting adverse maternal and perinatal outcome after threatened miscarriage. *Open Journal of Obstetrics and Gynecology*. 2014;4:1-7.
9. Clifford K, Rai R, Regan L. Future pregnancy outcome in unexplained recurrent first trimester miscarriage. *Human Reproduction*. 1997;12(2):387–9.
10. Neilsen HS, Steffensen R, Lund M, Egestad L, Mortensen LH, Andersen MN, et al. Frequency and impact of obstetric complications prior and subsequent to unexplained secondary recurrent miscarriage. *Human reprod* 2010; 25(6): 1543-52.
11. Petrozza, John C; Berin, Inna (August 29, 2006). "Early Pregnancy Loss". eMedicine. WebMD. Retrieved 12 January 2011.
12. Venners S, Wang X, Chen C, Wang L, Chen D, Guang W, Huang A, Ryan L, O'Connor J, Lasley B, Overstreet J, Wilcox A, Xu X (2004). "Paternal smoking and pregnancy loss: a prospective study using a biomarker of pregnancy". *Am J Epidemiol* 159 (10): 993–1001.
13. Warburton D, Fraser FC. Spontaneous abortion risks in man: data from reproductive histories collected in a medical genetics unit. *Am J Hum Genet* 1964; 16:1-25.
14. Bhattacharya S, Townend J, Shetty A, Campbell D, Bhattacharya S. Does miscarriage in an initial pregnancy lead to adverse obstetric and perinatal outcomes in the next continuing pregnancy? *Br J Obstet Gynaecol* 2008; 115:1623–29
15. Regan L, Rai R. Epidemiology and the medical causes of miscarriage. *Baillieres Best Pract Res Clin Obstet Gynaecol* 2000;14:839-43.
16. Goddijn M, Leschot NJ. Genetic aspects of miscarriage. *Baillieres Best Pract Res Clin Obstet Gynaecol* 2000;14:855-59.
17. Doubilet PM, Benson CB, Bourne T. Diagnostic criteria for nonviable pregnancy early in the first trimester. *N Engl J Med* 2013; 369:1443-45.
18. Wilcox AJ, Weinberg CR, O'Connor JF. Incidence of early loss of pregnancy. *N Engl J Med* 1988;319:189-93.
19. Wang X, Chen C, Wang L. Conception, early pregnancy loss, and time to clinical pregnancy: a population-based prospective study. *Fertil Steril*. 2003;79:577-80.
20. Wyatt PR, Owolabi T, Meier C, Huang T. Age-specific risk of fetal loss observed in a second trimester serum screening population. *Am J Obstet Gynecol* 2005; 192:240-44. **May 07, 2020**