



A RETROSPECTIVE STUDY OF THE IMPACT OF PREVIOUS SPONTANEOUS ABORTION ON THE SUBSEQUENT PREGNANCY

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ABSTRACT

Background: The objective of the study was to evaluate the pregnancy outcome following previous spontaneous abortion. **Material and methods:** This study include 200 patients admitted in the department of Obstetrics and Gynecology, SMGS Hospital, Government Medical College, Jammu of the Union Territory of Jammu and Kashmir, between February 2019 to August 2019. Patients with the history of spontaneous abortion preceding present pregnancy irrespective of gravidity, booked or unbooked status were enrolled for the study. Detailed history about previous abortion was taken and examination was done keeping in view the information about previous abortion. All the routine investigations alongwith investigations for possible etiologies regarding previous abortions were done. Pregnancy outcomes observed included: maternal complications (e.g. threatened abortion, abortion, pre-term delivery, PROM, breech presentation, placenta previa, placental abruption, pre-eclampsia, eclampsia, IUFD) foetal complications (still birth, low birth weight, low APGAR score, gross congenital malformations) and mode of delivery(caesarean section, normal vaginal delivery, assisted vaginal delivery). **Results:** Out of 200 patients, 130 were booked and 70 were unbooked. Majority of the patients (37.50%) were in the age group of 25-30 years. 54.0% of the patients belonged to urban areas. Majority 41.50% of the patients were uneducated or educated till primary level. 14.0 % of patients had threatened abortion and 10.0% had complete abortion. Pre-term delivery was seen in 13.0% of patients and PROM was found in 8.5% of patients. Caesarean section was performed in 40.50% of patients. Low Birth Weight (LBW) was observed in 10.0% of the patients. **Conclusion:** A prior spontaneous abortion is a risk factor for the next pregnancy. Careful prenatal and antenatal care is mandatory to reduce the maternal and fetal complications in the patients with history of previous spontaneous abortion.

KEYWORDS : Pregnancy, Spontaneous Abortion, PROM, Breech, IUFD, Still Birth, Abortion

INTRODUCTION:

The term miscarriage (abortion) is used to describe a pregnancy that fails to progress, resulting in death and expulsion of embryo or foetus. The National Center for Health Statistics, the Center for Disease Control (CDC) and the World Health Organization (WHO) define abortion as pregnancy termination prior to 20 weeks gestation or a fetus born weighing less than 500 grams. Spontaneous abortion is the most common complication of pregnancy, causing substantial anxiety for couples hoping for a child. The significant proportion of miscarriages has prompted investigators into studying its effects on the outcome of next pregnancy. Spontaneous pregnancy loss or miscarriage occurs in 15% of pregnancies¹. In India, it has been observed that occurrence of spontaneous abortion is higher in urban areas².

Abortion has been suggested to be related to foetal pathology, congenital abnormality, low birth weight, low APGAR score, Down's syndrome, IUGR and pre-term labor in next pregnancy^{3,4}.

- The main cause for recurrent abortions include anatomical disorders, hormonal abnormalities, genetic abnormalities and thrombophilias⁵.
- The purpose of the present study was to determine the pregnancy outcome in patients with history of previous abortions.

MATERIAL AND METHODS:

The present study include 200 patients admitted in the department of Obstetrics and Gynecology, SMGS Hospital, Government Medical College, Jammu of the Union Territory of Jammu and Kashmir, between February 2019 to August 2019. It included 200 patients admitted in the department with history of spontaneous abortion preceding present pregnancy irrespective of gravidity, booked or unbooked cases. Detailed history about previous abortion was taken and examination was done keeping in view the information about previous abortion. All the routine investigations alongwith

investigations for possible etiologies regarding previous abortions were done. Pregnancy outcomes observed included: maternal complications (e.g. threatened abortion, abortion, pre-term delivery, PROM, breech presentation, placenta previa, placental abruption, pre-eclampsia, eclampsia, IUFD) foetal complications (still birth, low birth weight, low Appgar score, gross congenital malformations) and mode of delivery(caesarean section, normal vaginal delivery, assisted vaginal delivery) during the present pregnancy.

The socio-demographic profile of the patient was also observed in the study.

RESULTS:

Out of the 200 patients, 130 were booked and 70 were unbooked as shown in Table 1.

Table 1

Booked	Unbooked
130	70

Majority of the patients (37.5%) were in the age group of 25-30 years as shown in Table 2.

Table2: Age group of the patients

Age	20-25	25-30	30-35	35-40
No. of Patients	45	75	60	20
Percentage	22.50%	37.50%	30%	10%

54% of the patients belonged to urban areas as shown in Table 3.

Table3: Residence

Place of residence	Urban	Rural
No. of patients	108	92
Percentage	54.00%	46.00%

Majority of the patients 41.50% were educated till primary level as shown in Table 4.

Table 4: Education

Education	Nil	Primary	High School	Graduate	Post-Graduate
No. of patients	47	83	50	13	7
Percentage	23.50%	41.50%	25%	6.50%	3.50%

14% of the patients had threatened abortion and 10% had complete abortion. It was observed that 13% had pre-term delivery and 8.5% had PROM as shown in Table 5.

Table 5: Maternal Complications

Maternal Complications	No. of patients	Percentage
Threatened Abortion	28	14%
Abortion	20	10%
Pre-term Delivery	26	13%
PROM	15	8.5%
Breech Presentation	11	5.5%
Placenta Previa	9	4.5%
Placental Abruption	7	3.5%
Pre-Eclampsia	14	7%
Eclampsia	3	1.5%
IUFD	2	1%

In the present study, it was observed that the foetal outcome in 81% of the patients was without any complication. Still birth was seen in 1 foetus and 1 foetus had congenital anomaly (club foot). 10% foetus had LBW and 8% foetuses had low APGAR score as shown in Table 6.

Table 6: Foetal Outcome

Foetal Outcome	No. of patients	Percentage
Still Birth	1	0.5%
Low Birth Weight	20	10%
Low APGAR Score	16	8%
Congenital Anomaly	1	0.5%

56% of the patient had normal vaginal delivery, 3.5% had assisted vaginal delivery and 40.50% of the patients underwent caesarean section as shown in Table 7.

Table 7: Mode of Delivery

Mode of Delivery	Caesarean Section	Normal Vaginal Delivery	Assisted Vaginal Delivery
No. of patients	81	112	7
Percentage	40.50%	56%	3.5%

DISCUSSION:

The present study is aimed to study the outcome in 200 patients with history of previous spontaneous abortions. Among these, 130 patients were booked and 70 patients came to the hospital for the first time. Maximum patients (37.5%) were in the age group of 25-30 years similar to Sahil et al. 2014, where majority of abortions 34.3% were in the age group of 25-29 years⁶.

In our study, 130 patients (65%) had no formal education or were educated upto primary level only. Hemminki et al. 1999 also reported that spontaneous abortion is more common in patients with low educational status⁷.

We observed that 54% patients in the study belonged to urban areas. Thapa et al. also observed that abortions were more common in urban population and mainly being induced abortions⁸. It is observed that risk of abortions increases with increasing number of previous pregnancy losses. Clifford et al. 1997 reported abortion rate after third and fourth abortion to be 29% and 27% respectively⁵. History of abortion in previous pregnancy is a risk factor, atleast for psychological aspects⁹.

In our study, we observed increased risk of pre-eclampsia in

patients with previous abortions. Similar observations were revealed in study done by Kashanian et al. 2005¹⁰.

The role of previous abortion on placenta previa in next pregnancy is controversial. Some studies suggest that there is no relation between the two as reported by Abu-Hejja et al. 1999¹¹. Macones GA et al.¹², Ananth CV et al.¹³, Thom DH et al. have reported that multiple abortions are a risk factor for placenta previa. We have observed that in our study 4.5% patients had placenta previa.

In our study, we observed that previous abortion increases the risk of threatened abortion, abortion, pre-term delivery, PROM and pre-eclampsia. Schoenbaum SC et al. in their study observed that pregnancy following spontaneous abortion increases the risk of congenital abnormalities, low APGAR score at one minute, low birth weight, threatened abortion and pre-term delivery¹⁵.

CONCLUSION:

Pregnancy with history of previous spontaneous abortion is associated with adverse pregnancy outcome, however the complications can be reduced by giving proper and supportive antenatal care.

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