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A STUDY OF PREGNANCY OUTCOME IN CASES WITH PREVIOUS FIRST TRIMESTER SPONTANEOUS ABORTION

Obstetrics & Gynaecology

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ABSTRACT

Introduction: Abortion is defined as pregnancy termination or loss before 20 weeks gestation or with a fetus delivered weighing & lt; 500g. About 80% of spontaneous pregnancy losses occur in first trimester. **Aim:** To evaluate & study pregnancy outcome in cases with history of previous spontaneous abortions. **Objective:** To compare the outcomes of pregnant women with history of previous spontaneous abortion and pregnant women without any history of previous abortion. **Methods:** Total 200 patient were studied 100 cases(with previous history of spontaneous abortion) and 100 control(without history previous abortion) for foetomaternal outcome. **Results:** A total of 100 patients with history of previous spontaneous abortion were admitted. Majority (58 %) of patients belong to the age group 21-25 years. Maximum patients (77%) were with history of previous one abortion followed by previous two abortions (17%). The final outcomes were term live birth (64%), abortion (6%), preterm delivery (16%), and PROM (10%). Caesarian section was done in 33% patients for various indications in cases. In control group term live birth (93%),abortion(1%),preterm (4%) and IUGR (1%).Caesarian section was done in 2% control group. **Conclusions:** Our study showed that previous history of spontaneous abortion is associated with adverse pregnancy outcome like increased risk of abortion, preterm delivery, need for caesarean sections and fetal loss in cases of previous spontaneous abortions.

KEYWORDS

Pregnancy, spontaneous abortion, preterm delivery, IUD.

INTRODUCTION

Abortion

Termination of pregnancy before 28 weeks gestation calculated from date of onset of last menses or delivery of a fetus with a weight Of less than 500g. If abortion occurs before 12 weeks gestation, it is called early; from 12 to 20weeks it is called late.[1,2,3]

Spontaneous Abortion

Abortion occurring without medical or mechanical means to empty the uterus is referred to as spontaneous abortion.The spontaneous miscarriage rate varies between 10% to 20% where 10% refers to late recognition of pregnancy and 20% refers to research involving routine testing for pregnancy before 4 weeks or 4 weeks after the last menstrual period[4,5] About 80% of sponataneous pregnancy losses occur in first trimester [2,6]

Maternal factors:

- Risk of recurrence of miscarriage increases with the number of abortions occurred in previous pregnancies.
- Advanced maternal age has been documented to be the strongest risk factor for miscarriage, with women over 42 years experiencing 50% miscarriage rates and women aged 45 associated with 75% rates.[7,8]
- Infections
- Medical disorders like Diabetes, Thyroid dysfunction, Cardiac diseases, Radiation & Chemotherapy for cancer
- Nutritional factors like extreme obesity
- Severe Hyperemesis Gravidarum
- Drug abuse and social habits like alcohol & smoking
- Immunological factors like Anti-Phospholipid antibody syndrome [3,9].

Fetal Factor

This concurs with current research showing about 50% [5] to 60% [7] of miscarriages are the result of random foetal chromosomal abnormalities incompatible with life. Autosomal trisomy are most common, in trisomy most common is trisomy 16.

Due to high incidence & complex aetiology of spontaneous abortion, it is of great importance to investigate the subsequent pregnancy outcome in order to ensure an effective perinatal care and there is need for evidence based counselling in relation to perinatal outcome for women who book for antenatal care with history of previous spontaneous abortion.

With this background, purpose of this study is to observe the association of previous spontaneous abortion with adverse maternal and perinatal outcome in current pregnancy and to estimate the risk of preterm delivery, recurrence of abortion, PROM, low birth weight, IUGR, still birth, IUD, or any other adverse event in women with previous spontaneous abortions.

AIM

To study the pregnancy outcome in cases with previous first-trimester spontaneous abortion.

OBJECTIVES

1. To evaluate the pregnancy outcome in cases with previous Spontaneous abortion in the form of recurrent abortion, preterm delivery, low birth weight, Intra Uterine Growth Retardation.
2. To evaluate pregnancy outcome in cases with previous normal full term delivery.
3. To compare the outcomes of pregnant women with history of previous spontaneous abortion and pregnant women without any history of previous abortion.

METHODOLOGY

Inclusion Criteria

- Pregnant patient having history of one or more than one abortions during first trimester.
- Pregnant patient having history of previous FTNVD without any history of abortion.

Exclusion Criteria

- Chronic hypertension, Pregnancy induce hypertention, Gestational diabetes mellitus, Pre-gestational diabetes mellitus, heart disease, anaemia, chronic kidney disease, autoimmune disease.

Abnormal reproductive tract anatomy. Study population will be divided in two group:

Study Group: 100 pregnant women with history of spontaneous abortions.

Control:

100 pregnant women with history of previous full term deliveries (with no history of abortion), will be undertaken to compare the obstetric outcomes between two groups.

Neonatal outcomes such as low birth weight, preterm, NICU admission, APGAR score at 1 min and 5 min & Maternal outcomes such as preterm labour, IUGR, PROM, mode of delivery will be compared between the two groups.

A detailed history and examination will be done of all the pregnant women who will be admitted for delivery in the department of Obstetrics and Gynecology of SIMS HAPUR.

RESULT

Table- 1. Distribution according to age

Age in years	control	case
18-20	4	16
21-25	59	58
26-30	31	23
31-35	6	3
Total	100	100
Mean ±SD	25±25.7	25±23.5

Majority of subjects belonged to age group 21-25. The mean age of patients among cases and control is 25.

Table 2 Gravida Distribution Of Patients Among Cases And Control Group

GRAVIDA	CONTROL	CASES
1	00	00
2	78	76
3	9	18
4	2	4
5	1	2
Mean ± SD	18±33.7	20±32.09

Table 2 shows the distribution of the patient in both the control group and the cases with respect to the gravida status of the patients. It can be seen clearly that majority are belonging to 2nd gravida among both the groups.

Table 3:distribution Of Cases Group With Respect To The Number Of Previous Abortions

PREVIOUS HISTORY OF ABORTION	CASES
1	77
2	17
3	4
4	2

Table 3 shows the distribution of cases with respect to the number of previous abortions. 77% of patients had 1 previous abortions,17 percent of patients had previous 2 abortions, 4 percent of patients had 3 previous abortions and 2 percent of patients had previous 4 abortions

Table 4: Mode Of Termination Of Pregnancy

MODE OF TERMINATION	CONTROL	CASE	p value
FTNVD	96	49	0.001
EMG.LSCS	2	33	<0.05
ASSISTED BREECH	1	2	0.563
OUTLET FORCEP	0	1	0.317
SPONTANEOUS EXPULSION	1	2	0.563
INCOMPLETE ABORTION	0	9	0.083
SPONTANEOUS ABORTION	0	4	0.083
TOTAL	100	100	

Table 5 : Comparision Of Obstetric Outcome Between Cases And Controls

OUTCOME	CONTROL	CASE	P Value
FULL TERM	93	64	0.02
POST TERM	1	2	0.563
PRETERM	4	16	0.072
PROM	0	10	0.0015
STILL BIRTH	0	0	
IUGR	1	0	0.317
IUD	0	2	0.157
ABORTION	1	6	0.05
TOTAL	100	100	

Table 6: Indications Of Lscs Or Forceps

Indications	control	cases
Abruptio placenta	0	1
Baby- asphyxia	0	0
BOH	0	2
Breech	0	3
Cord ppt.	0	1
CPD	1	8
Foetal distress	0	10
NPOL	0	3
Obstructed labour	0	1
Oligohydramnios	1	2
Transverse lie	0	1

Table 7 : Neonatal Outcome

Neonatal outcome	control	Cases	P value
Low birth weight (<2.5 kgs)	8	26	0.002
preterm	4	16	0.007
NICU admission	6	20	0.006

DISCUSSION

- **Table 1** There was no statistical difference between the two groups regarding age distribution.
- **Table 2** The distribution of gravidas among controls and cases did not differ significantly.
- **Table 3** shows 77% of patients had 1 previous abortions,17 percent of patients had previous 2 abortions, 4 percent of patients had 3 previous abortions and 2 percent of patients had previous 4 abortions
- **Table 4** shows 96% of controls had normal deliveries and only 49 % of cases had normal deliveries. 2 percent of controls had LSCS and 33 percent of cases had LSCS. 1 percent of controls had assisted breech delivery, and 2 percent of cases had assisted breech delivery. 9 percent of cases had incomplete abortion and 4 percent of cases had spontaneous abortion.
- **Table 5** compares the Obstetric outcome between the controls and cases. The number of patients who reached full term among control group was 93% and cases were 64%. The number of patients who delivered preterm among control group was 4 percent and among cases were 16 percent . The percentage of patients who had PROM among cases were 10 percent.
- **Table 6** shows the indication for LSCS/ Forceps among both cases and controls. Among control group 1.6 percent of patients had forceps/LSCS. Whereas 33.4 percent of patients among cases group had forceps/LSCS. The
- **Table 7**compares neonatal outcome in terms of lowbirth weight,preterm birth and NICU admission among control and cases. There were 8 percent babies who had low birth weight in control group and 26 percent in cases.There were 4 percent preterm births in control and 16 preterm births in cases. There were only 6 percent NICU admissions in control group and 20 percent in cases.

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