Research Paper Medical Science

Causes of Recurrent Pregnancy Loss In Second Trimester

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ABSTRACT

Recurrent Pregnancy Loss is a problem which is responsible for great mental trauma to a woman and with each pregnancy loss chances of successful pregnancy outcome decrease.Aim of this study was to evaluate patients with recurrent pregnancy loss and find out its cause in second trimester and treatment. It was a prospective study conducted over a period of one and half year in the Department of Obs&Gynnae, MLB Medical College, Jhansi, comprised of 50 women who had two or more consecutive pregnancy losses before 20 weeks of gestation. This study concluded that identification & treatment of causes of RPL will result in good outcome.

KEYWORDS : Recurrent Pregnancy Loss, miscarriage, APLA.

Introduction

Recurrent pregnancy loss is defined as 3 or more consecutive pregnancy losses prior to 20 weeks from last menstrual period. It affects 1% to 2% of women. Best available data suggest that risk of miscarriage in subsequent pregnancies is 30% after 3 losses among patients without a history of live birth. Pregnancy is a hypercoagulable state. Successful pregnancy outcome is highly dependent on placental development and placental function. Over last decade evidences have shown that some cases of recurrent pregnancy loss are due to exaggerated hemostatic response during pregnancy leading to thrombosis and infarction. There are various causes associated with recurrent pregnancy loss of which most common are: 1) *Genetic causes* -Aneuploidy, Somatic, Sex chromosome, Mendelian disorders, Parental chromosomal abnormalities, Chromosomal inversion 2) *Immunologic causes* -Autoimmune causes .Alloimmune causes 3) *Anatomic causes*-Uterine mullerian anomaly (Uterine septum ,Hemiuterus,Bicornuate uterus),Diethylstilbestrol linked conditions ,Acquired defects (e.g. Asherman syndrome) ,Incompetent cervix ,Leiomyomas, Uterine polyp 4) *Infectious cause* 5) *Environmental causes* -Smoking ,Excessive alcohol intake , Caffeine 6) *Endocrine factors*-Diabetes factors ,Antithyroid antibodies ,Luteal phase deficiency 7) *Hematologic disorders.*

Material and methods

The present study " Causes of Recurrent Pregnancy Loss in Second Trimester" was conducted on 50 women admitted in the ward, attended Emergency or OPD of Department of Obstetrics and Gynecology of MaharaniLaxmiBai Medical College, Jhansi from March 2014 to Oct 2015. Pregnant woman between 20-40 years of age who had a regular marital life with the same partner and regularly menstruating before current pregnancy, with history of at least 2 previous consecutive pregnancy losses before 20 weeks of gestation were included in the study. Women with pregnancy losses after 20 weeks of gestational age were excluded from the study.

Observation and Result

Total 50 patients were included in the study. It was found that maximum cases of RPL remain unexplained. Table I showing the causes of RPL is at the end of this article. Most females (50%) were in the age group of 26 to 30 years. This study showed cervical incompetence as the most common anatomical cause (30%) of RPL in second trimester. Antiphospholipid antibody syndrome was found positive in 20% of cases of RPL in second trimester. Study showed that certain endocrinal abnormalities like Diabetes Mellitus and Hypothyroidism may lead to Recurrent Pregnancy Loss. The study showed that infection like genital tuberculosis can lead to RPL.Our study showed that appropriate treatment of cause in RPL can result in good outcome and empirical treatment with aspirin and progesterone may be beneficial in unexplained cases.

Discussion

In our study we accounted various etiological factors responsible for recurrent pregnancy loss in second trimester. The identifiable causes accounted for 60% cases (as shown in Table I), out of which anatomical defects were the commonest etiology. However, 40% of cases had no identifiable cause present. A similar study conducted by SaminaMohyiddin and Syed Tousif Ahmed in 2014 revealed unidentified causes accounting for 46%.

6(30%) patients with second trimester loss had Anatomical abnormalities,out of which 5 were suspected of cervical incompetence and cervical encerclage was done.Among the treated patients live birth rate was 80%(4/5) patients. Drakeley AJ et al. in 2003 found that cervical insufficiency was diagnosed in 4.6 per 1000 women, and it is estimated to occur in 8% of women with recurrent mid-trimester losses.

2(10%) patients with second trimester loss had endocrinal factors responsible for pregnancy losses, out of these 1 had Diabetes mellitus and were treated with hypoglycaemic drugs giving 100% live births, and 1 had Hypothyroidism, who were treated with Thyroxin which led to 100% live births. In a similar study by MeenalPatvekar et al 10% patients with RPL had endocrinal abnormalities.

4(20%) patients with second trimester loss were tested positive for Antiphospholipid antibodies and were treated with Low dose Aspirin(75 mg) and LMWH this resulted in 75% (3/4 patients) live births. In a study conductedby Luis S. Noble *et al.* in 2005 found that 16% of cases of RPL were APLA positive.

No cause could be identified in 8(40%) patients, these patients were given empirical treatment with Low dose aspirin and Progesterone,out of these 75% (6/8) patients had successful pregnancies with live births. A similar study conducted by SaminaMohyiddin and Syed Tousif Ahmed in 2014 revealed unidentified causes accounting for 46%.

Conclusion

In our study we found that 60%(12/20) patients with RPL in second trimester had identifiable cause, out of which anatomical defects were the commonest etiology. While 40% cases had no identifiable cause.

6(30%) patients had anatomical abnormalities in second trimester loss, out of which 5 were suspected of cervical incompetence and had undergone cervical encerclage& resulted in live birth rate of 80%(4/5 patients)

2(10%) patients with second trimester loss had endocrinal factors, out of these 1 had Diabetes Mellitus who resulted in successful pregnancy after treatment with hypoglycemic drugs, and 1 had Hypothyroidism who were treated with thyroxin which led to successful outcome.

4(20%) patients in second trimester loss were positive for Antiphospholipid antibodies and on treatment with Aspirin and LMWH resulted in 75% (3/4patients) live births.

No cause could be identified in 8(40%)patients with second trimester loss who were given treatment with low dose aspirin & progesterone, out of these 75%(6/8) patients resulted in successful pregnancies.

Abbreviations

RPL-Recurrent Pregnancy Loss,APLA-Antiphospholipid antibody,LMWH-Low molecular weight heparin

TABLE I: ETIOLOGICAL FACTORS IN ASSOCIATION WITH RPL

Etiology	Number of cases	Percentage
Anatomical defects	10	20
Endocrine	7	14
APLA	6	12
Others	1	2
Unknown	26	52
Total	50	100

TABLE II: ANATOMICAL DEFECTS

Anatomicaldefects	No. of cases(50)	Percentage
Normal	40	80
Cervical incompetence	7	14

TABLE III: Trimester wise causes of Recurrent Pregnancy Loss

Etiology	First Trimester	Second Trimester
Anatomical defects	4	6
Endocrine	5	2
APLA	2	4
Others	1	0
Unknown	18	8
Total	30	20

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