RESEARCH

EVALUATION OF RECURRENT PREGNANCY LOSS IN WOMEN OF BIHAR

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Abstract

Background: RPL is defined by two or more failed clinical pregnancies and up to 50% of causes of RPL will not have clearly defined aetiology. Majority of RPL are sporadic and most result from genetic causes and greatly influenced by maternal age. **Materials and Methods:** 150 patients aged between 23-38 years were studied. Investigation included – IgG, Igm antibody, antib1, anti-cardiplin, glycoprotein, routine blood exam Urine culture. Histo–Salpingiography, sono-hysterography USG, Hormonal assay, FSH, LH, TSH, prolactin, were studied. AbsA1c, GTT, FBS, CBC, Sperm, analysis in males. Mucosal CD16, NKC was carried out. **Result:** Distribution of age group was 37 (25%) between 23.28, 50 (33.3%) between 29-30, 62 (41.3%) between 31-38, 103 (68.6%) endocrine disorders, 6 (4%) anatomical, 11 (7.3%) apL syndrome, 17 (11.3%) male factors, 13 (8.6%) psychological factors. **Conclusion:** This pragmatic approach to RPL will be quite useful to obstetric and gynaecologist and endocrinologist to predict the consequences which cause RPL can be managed efficiently because majority of RPL are sporadic and defined as failed clinical pregnancies.

INTRODUCTION

Recurrent loss in pregnancy or miscarriage is a spontaneous loss of pregnancy before foetus reaches viability. The term therefore, includes all pregnancy losses from the time of conception until 24 weeks of gestation. It should be noted that, advances in the neonatal care have resulted in a small number of babies surviving birth before 24 weeks of gestation.
Recurrent miscarriage defined as the loss of three or more couples trying to conceive.[1] It has been estimated that 1-2% of second trimester pregnancies miscarry before 24 weeks of gestation.[2]
Maternal age and number of previous miscarriages are two independent risk factor for further miscarriage.[3,4] Previous reproductive history is an independent predictor of future pregnancy outcome. The risk of miscarriage increases after each successive pregnancy loss, and prognosis worsens with increasing maternal age. The aim of the study to evaluate the different factors which leads to RPL so that the adverse factors can be managed efficiently.

MATERIALS AND METHODS

150 women aged between 23-28 regularly visiting Obstetrics and Gynaecology OPD of Lord Budha Koshi Medical College, Saharsa – 852001, Bihar were studied.

Inclusive Criteria

The patients who had recurrent pregnancy loss on every pregnancy. Aged below 40 years was selected for study.

Exclusion Criteria

Patient above 40 years, patients under treatment of anti-depressant and anti-epileptic were excluded from study.

Method

History of every patient was recorded. Majority of the patient belonged to middle socio-economic status. The investigation included

(a) anti-cardiolipin, IgG, Tgm antibody, antib2, glycol-protein, Urine culture.
(b) Hystosalpingography, sono-hysterography, USG
(c) Hormonal assay included FSH, LH, TSH, prolactin, HbsA1C, GTT, FBS, RBS, CBC
(d) Sperm analysis in male
(e) Mucosal CD16, NKC

Duration of study July 2018 to June 2020

Statistical Analysis

Different age groups and various clinical manifestations were noted and classified with percentage. The statistical analysis was carried out in SPSS software.

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RESULTS

[Table 1] Distribution of age groups in RPL patients – 38 (25.3%) age group between 23-28, 50 (33.3%) age group between 29-30, 62 (41.3%) age group between 31-38.

[Table 2] Clinical manifestation of RPL patients – 29 (19.3%) had un-controlled diabetes, 21 (14%) had PCOD, 6 (4%) congenital uterine anamoly, 11 (73) had aPL syndrome, 17 (11.3%) had male factors, 13 (8.6%) had psychological factors.

Table 1: Definitions of pregnancy and RPL

Pregnancy	Clinical pregnancy documented by USG or histopathological report
Clinical Miscarriages	Pregnancy loss before the 20th week of gestation.
Biochemical pregnancy	Beta HCG hormone detected in the urine or blood stream, but pregnancy loss occur before it could be clinically documented.
RPL Classic Definition	Three pregnancy losses (Recurrent loss of before the 20th week of gestation and Pregnancy) - excludes ectopic molar and bio-chemical pregnancy.
Primary RPL	Patient never had a live birth
Secondary RPL	Patient who had at least one live birth.

Table 2: Distribution of age group in RPL patients (No of patients: 150)

Sl. No	Age group	No. of patients	Percentage
1	23-28	38	25.3
2	29-30	50	33.3
3	31-38	62	41.3

Table 3: Clinical Manifestation of RPL patients

Sl. No	Clinical Manifestation	No of patients (150)	Percentage
a	Endocrine		
1	TSH	29	19.3
2	Prolactin	14	9.3
3	Un-controlled DM	39	26
4	PCOD	21	14
b	Anatomical		
1	Congenital Uterine anamoly	6	4
c	aPL syndrome	11	7.3
d	Male factors	17	11.3
e	Psychological	13	8.6

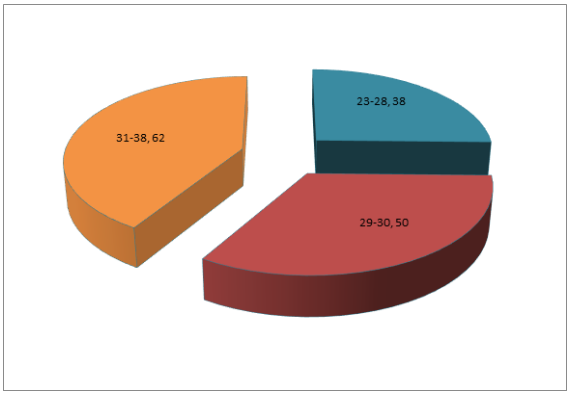

Figure 1: Distribution of age group in RPL patients.

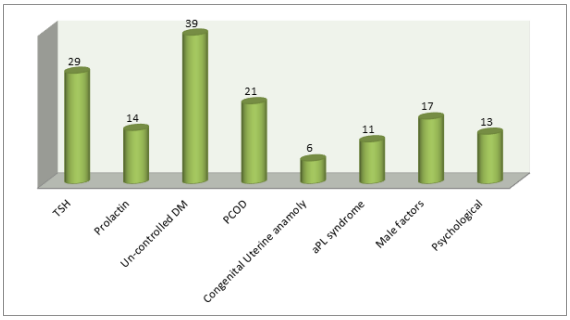

Table 2: Clinical Manifestation of RPL patients

DISCUSSION

In the present of RPL the distribution age group was 23 to 38 years- 38 (25.3%) were between 23-28 50 (33.3%) were 29-30, 62 (41.2%) were 31-38 [Table 2]. Clinical manifestation had 29 (19.3%), 14 (9.3%) prolactin, 39 (26%) uncontrolled DM, 21 (14%) PCOD, 6 (4%) congenital uterine anamoly, apL syndrome, 17 (11.3%) male factors, 13 (8.6%) psychological factors (Table-3). These findings are more or less in agreement with previous studies.[5,6,7]

Up to 50% of causes of RPL is yet to be known. The common causes are chromosomal abnormalities. The presence of specific antibodies called antibodies. Moreover obesity, DM and PCOD (poly cystic ovarian Disease) can also lead to RPL.[8]

APL (Anti-phospho lipid) syndrome is a disorder of immune system. The antibodies of the apL syndrome can be ruled from blood examination. Antibodies called anti-cardiolipin, lupus, and anti-coagulant. As foetus is not genetically identical to its mother hence immunological disorders has to be ruled out in women with RPL.[9]

Endocrine disorders include PCOD, DM, TSH, and hyper prolactenemia. Hyper prolactanemia is due the luteal phase defect i.e. inadequate production of progesterone by corpus luteum, and insufficiency in

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endometrial maturation leads abnormal formation of placenta which also causes RPL.[10]

It is also reported that, abnormal elevation in Luteinising hormone or androgen also may cause RPL. These abnormally elevated hormones also cause premature ageing of oocyte and or dysynchrionus maturation of the endometrium which results into endocrine disorders like TSH levels also.[11]

Anatomical (congenital) disorders were due to improper fusion of germ layers or could be un-healthy uterine environment. Male factors include sperm disorders like oligospermia, asthenospermia azoospermia. Although male partner was healthy, usually remains away during ovulation period could be due to travelling job (service). Moreover tobacco, alcohol, anti-depressant drugs can cause sperm abnormalities. The zygote formed from such sperms may not sustain in implantation or during gestational period may also lead to RPL.

It was also observed that, stress or emotional disorders; malnutrition, under nutrition may not prolong the full-term pregnancy and leads to miscarriage.

It is also reported that genes work efficiently under proper nutrition. It they do not get proper nutrition they become inactive and then they are called as silence genes. Hence it can be hypothesized that, balanced diet or proper nutrition is must for pregnant women so that genes can perform their function energetically and efficiently.

CONCLUSION

Present study of evaluation of RPL will be help to obstretecin, gynaecologist and endocrinologist to assess the various causes of RPL. In chronic RPL patient PCS (pre implantation chromosomal screening) can be tried to rule out the aetiology. Moreover IVF technique also useful in RPL patients, but this study demands further genetic, hormonal, nutritional, psycho-social, patho-physiological studies because exact causes of RPL is still unclear.

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