

To study incidence of patients with recurrent pregnancy loss with respect to antenatal patient & to identify the various etiological factors

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Abstract:

Background & Method: *The present study was conducted with an aim to study incidence of patients with recurrent pregnancy loss with respect to antenatal patient & to identify the various etiological factors in the Department of Obstetrics and Gynecology, M.G.M Medical College and M.Y Hospital, Indore. In this period 14564 antenatal patients were admitted both in routine and emergency hours of which 5660 were high risk pregnancies. 89 patients had recurrent pregnancy loss. Of these 62 patients selected. These patients were randomly selected including all age groups, parity, socioeconomic and educational status.*

Result: *Distribution of cases according to booked and emergency cases. Patients with bad obstetric history are often apprehensive about their present pregnancy and seek regular medical care, as seen by 70% of cases being booked. Patients in the fourth decade, even with one pregnancy loss, form a high risk pregnancy group. Though less in number, but these are one of the most important patients. In majority of our patients (58%) no cause could be detected, this was because many of these cases were idiopathic, and also because in many cases the patients could not afford the investigations. 8(12.9%) of patients had a underlying endocrine factor responsible for their recurrent pregnancy loss, whereas in 8(12.9%) patients it was anatomic factor. Infections were the main culprit in 4(6.4%) cases whereas in 4(6.4%) of cases other causes like heart disease, Rh isoimmunization were responsible*

Conclusion: *Traditionally recurrent pregnancy loss has been a term used for any couple who had three or more fetal losses. Today, couples with even a single pregnancy loss should be counseled regarding further pregnancy. Those with two fetal losses and those in the fourth decade should be thoroughly evaluated. Any women with three fetal losses needs strict evaluation, standard tests and should be offered available options of treatment. Recurrent miscarriage is a distressing problem that affects 1% of all women. This incidence is greater than that expected by chance alone, since 10-15% of all clinically recognized pregnancies end in a miscarriage and theoretical risk of three consecutive pregnancy losses is 0.34%. Hence only a proportion of women presenting with recurrent miscarriage will have a persistent underlying cause of their pregnancy losses. The purpose*

of my work was to review the literature and provide guidance on the investigation and treatment of couples with recurrent pregnancy loss.

Keywords: *recurrent, pregnancy, antenatal & etiological.*

Study Designed: *Observational Study*

1. INTRODUCTION

Recurrent miscarriage is being defined as 3 or more consecutive spontaneous losses of pregnancy before 20 weeks gestation^[1]. Recurrent pregnancy loss affects 1-2% of couples and has a complex etiology. About half of miscarriages from recurrent pregnancy loss cases are caused by chromosomal abnormalities in the embryo and there are several associated maternal factors, underlying causes and clinically relevant biomarkers have been elusive^[2].

It is hypothesized that genetic and/or epigenetic factors associated with maternal meiotic non-disjunction, reproductive aging and endocrinological profile, or placental functioning will contribute to the etiology of recurrent pregnancy loss. Isolated spontaneous pregnancy loss is remarkably common^[3]. Recurrent pregnancy loss affects 1 in 300 to 1 in 100 couples. After several pregnancy losses, there remains a greater chance of having available birth than another loss, even without treatment. Prognosis can improve dramatically with treatment of a known underlying etiology for recurrent pregnancy loss. The antiphospholipid syndrome (APS) and Parental chromosomal abnormalities are the undisputed causes of recurrent pregnancy loss.

Other well described causes include anatomic, endocrine, thrombotic, and possibly other immunologic factors. The state of coagulability is a balance between anti and prothrombotic pathways. The hypercoagulability of pregnancy can be attributed to increase in prothrombotic factors and decreases in those that inhibit coagulation^[4].

The immunologic interactions at the maternal–fetal interface reflect the presence of unique cellular constituents and with the actions of steroid hormones, protein hormones, and metabolic factors^[5&6].

Patients of with recurrent pregnancy loss should be evaluated with a detailed patient and family history, an examination focused on endocrine and anatomic abnormalities, and laboratory studies limited to evaluation of treatable etiologies^[7&8].

2. MATERIAL & METHOD

The present study was conducted in the Department of Obstetrics and Gynecology, M.G.M Medical College and M.Y Hospital, Indore from January 2018 to June 2019. In this period 14564 antenatal patients were admitted both in routine and emergency hours of which 5660 were high risk pregnancies. 89 patients had recurrent pregnancy loss. Of these 62 patients selected. These patients were randomly selected including all age groups, parity, socioeconomic and educational status.

These patients were categorized as booked and emergency patients and detailed history was taken. During history taking special importance was given to few salient features.

- Pattern, trimester, and characteristics of prior pregnancy losses were asked.
- During that pregnancy if any investigations like ultrasonography was done or not.
- If any investigations like karyotyping was done on the abortus or was there any congenital anomaly in the previous born.
- History of subfertility or infertility was specially asked for.
- Menstrual history, both past and present, any irregularities, flow of blood was inquired.

- Any evidence of prior or current gynecologic or obstetric infection were sought. History of puerperal or post abortal fever was asked, any complaints of vaginal discharge, itching or dyspareunia were given importance.
- Signs or symptoms of thyroid dysfunction, prolactin, glucose intolerance and hyperandrogenic disorders including PCOS were looked for.
- Personal or familial thrombotic history was sought for.
- Detailed history was taken regarding medications taken during prenatal and antenatal periods.
- Any exposure to environment pollutants, illicit and common drug use was studied.
- Genetic relationship between reproductive partners was asked for.
- Relevant family history, especially regarding pregnancy losses in the family, any chromosomal or genetic disorder running in the family, or a history of diabetes, hypertension were taken.
- Patients of recurrent pregnancy loss are at times extensively investigated.
- Previous diagnostic test conducted and treatment received by the patients were evaluated so as to help in making of a diagnosis and also to avoid unnecessary tests.

Physical examination was carried out with particular attention to

- Obesity, hirsutism and acanthosis
- A thyroid examination was done, and if hyper or hypothyroidism was suspected patient was advised thyroid hormones levels.
- Breast examination was done and galactorrhoea was ruled out.
- A pelvic examination was conducted wherever necessary and any anatomical anomaly was noted.
- Any evidence of infection was looked for, and if suspected vaginal culture sensitivity was sent.

INVESTIGATIONS

- In addition to all routine investigations like Hb, T&D platelets, ABOrh, urine, specific investigations like VDRL, blood urea, FBS, PPBS, GTT if required were carried out.
- All patients were subjected to sonography in early pregnancy to confirm pregnancy, later for diagnosis for cervical incompetence, and then for follow-up of the fetus.
- Sophisticated investigations like T3, T4, TSH, TORCH, serum progesterone, karyotyping, antiphospholipid antibody were carried out only if they were absolutely necessary and affordable by patients.

3. RESULTS

Table No. 01
Distribution of Booked and Emergency Cases

S. No.	Booking cases	No.	Percentage
1	Booked cases	44	70
2	Emergency cases	18	30

This table shows distribution of cases according to booked and emergency cases. Patients with bad obstetric history are often apprehensive about their present pregnancy and seek regular medical care, as seen by 70% of cases being booked.

Table No. 02
Age Characteristics of Women under Study

S. No	Age	No. of Cases	Percentage
1	<21 yrs	03	4.8
2	21-29 yrs	45	72.5
3	30-35 yrs	13	20.9
4	>35 yrs	01	1.61

Patients in the fourth decade, even with one pregnancy loss, form a high risk pregnancy group. Though less in number, but these are one of the most important patients.

Table No. 03
Table showing etiological factors of pregnancy loss

S. No.	Etiological factors	No. of patients	Percentage
1	Anatomic factors	08	12.9
2	Endocrine factors	08	12.9
3	Infectious causes	04	6.4
4	Antiphospholipid antibody syndrome	02	3.2
5	Other causes	04	6.4
6	No cause detected	36	58.06

In majority of our patients (58%) no cause could be detected, this was because many of these cases were idiopathic, and also because in many cases the patients could not afford the

investigations. 8(12.9%) of patients had a underlying endocrine factor responsible for their recurrent pregnancy loss, whereas in 8(12.9%) patients it was anatomic factor. Infections were the main culprit in 4(6.4%) cases whereas in 4(6.4%) of cases other causes like heart disease, Rh isoimmunization were responsible.

4. DISCUSSION

Time to time innumerable obstetricians have studied the factors responsible for recurrent pregnancy loss. Also they have evaluated the different modalities of treatment and their success rate^[9]. The aim of this work is to evaluate the underlying cause of conceptional wastage with a view to ascertain the extent to which preconceptional and antenatal care can provide protection against recurrence of this sort of obstetric hazard^[10].

The present study was conducted in 62 patients. This study included antenatal patients with recurrent pregnancy loss, admitted at M.Y. hospital both as booked and emergency cases.

In our study anatomical defect were found in 8[12.9%] patients. In 8 [12.9%] endocrine factors were responsible for recurrent pregnancyloss^[11]. In 4[6.4%] patients infectious etiology was present, whereas 2 patients were found to have antiphospholipid antibody. In 4 patients other factors like heart disease, Rh isoimmunization were responsible. In the majority of cases that is 36 patients [58.06%] no cause could be detected. This was because many of these cases were idiopathic, and also in many cases the patients could not afford the sophisticated and costly investigations^[12]. Prevalence of causative factors have also been studied by Quenby(1993).

5. CONCLUSION

Traditionally recurrent pregnancy loss has been a term used for any couple who had three or more fetal losses. Today, couples with even a single pregnancy loss should be counseled regarding further pregnancy. Those with two fetal losses and those in the fourth decade should be thoroughly evaluated. Any women with three fetal losses needs strict evaluation, standard tests and should be offered available options of treatment.

Recurrent miscarriage is a distressing problem that affects 1% of all women. This incidence is greater than that expected by chance alone, since 10-15% of all clinically recognized pregnancies end in a miscarriage and theoretical risk of three consecutive pregnancy losses is 0.34%. Hence only a proportion of women presenting with recurrent miscarriage will have a persistent underlying cause of their pregnancy losses. The purpose of my work was to review the literature and provide guidance on the investigation and treatment of couples with recurrent pregnancy loss.

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