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International Journal of Current Research
Vol. 10, Issue, 01, pp.64080-64081, January, 2018

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

A STUDY OF EFFECTS OF LOW MOLECULAR WEIGHT HEPARIN (LMWH) AND PROGESTERONE ON UNEXPLAINED PREGNANCY LOSS

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ARTICLE INFO

Article History:
Received 19th October, 2017
Received in revised form
07th November, 2017
Accepted 21st December, 2017
Published online 19th January, 2018

Key words:
LMWH,
Progesterone,
Pregnancy loss.

ABSTRACT

Aims and Objectives: To study the effects of Inj. LMWH and Progesteron given to improve the outcome in women with unexplained pregnancy loss irrespective of its etiology (luteal phase defect, endocrinopathy, immunological disorders)

Material and Method: In this prospective observational study 60 pregnant women of reproductive age group with a history of two or more previous unexplained pregnancy loss before 20 weeks of gestation with live birth or no live births prior to reccurent losses coming at civil hospital Ahmedabad during study period of Jun 2016 to November 2017 who received LMWH; enoxaparin (n=30) and progesterone or nothing (n=30) were followed for the pregnancy outcome measures. 30 patients out of 60 were given inj.LMWH 60mg sc. Every alternate day till delivery and Tab. Micronised progrsterone in first trimester. Another 30 patients were given nothing except conservative routine antenatal treatment.

Conclusion: Thromboprophylaxis with LMWH resulted in a improved live-birth rate in patient with 2 or more consecutive unexplained recurrent pregnancy loss irrespective of mode of delivery whether vaginal delivery or Cesarean delivery. Nevertheless these findings need to be confirmed in larger randomized trials.

Citation: Dr. Tushar Shah, Dr. Mehul Patel and Dr. Yamini Patel, 2018. "A study of effects of low molecular weight heparin (lmwh) and progesterone on unexplained pregnancy loss", *International Journal of Current Research*, 10, (01), 64080-64081.

INTRODUCTION

To bear a child is consider to be a matter of great pride. Every pregnancy is precious pregnancy. Needless to say, inability to succeed in providing a healthy child in the family is considered a bane and a social stigma attached to it.our aim is to improve outcome in all women who have even suffered from single pregnancy loss by early diagnosis of risk factor and etiology, proper intervention and prevent further pregnancy loss in this morden era of nuclear family. Recurrent Pregnancy loss is an area of reproductive medicine in which the women has no difficulty in conception but is not able to give a birth to a healthy child due to repeated losses at any stage of pregnancy <20 weeks of gestation. Recurrent pregnancy loss is defined as Three or more consecutive miscarriage before 20 weeks of gestation or before fetus reaches viability RCOG guidelines 2011). Most of the pregnancy lossare unidentified and subclinical. There are many causes of recurrent abortion, however only three are widely accepted: parental chromosomal abnormality, immunological disorders and a subset of uterine anomaly. Other suspected but not proven causes are endocrinopathy, various infection and environmental toxins.

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Aims and Objectives

To study the effects of Inj.LMWH and Progesteron given to improve the outcome in women with unexplained pregnancy loss irrespective of its etiology (luteal phase defect, endocrinopathy, immunological disorders).

MATERIALS AND METHODS

In this prospective observational study 60 pregnant women of reproductive age group with a history of two or more previous unexplained pregnancy loss before 20 weeks of gestation with live birth or no live births prior to reccurent losses coming at civil hospital Ahmedabad during study period of Jun 2016 to November 2017 who received LMWH; enoxaparin (n=30) and progesterone or nothing (n=30) were followed for the pregnancy outcome measures. Among these, women with cardiovascular disease, bleeding diathesis, previous thromboembolic phenomena, diabetes mellitus, vaginal bleeding, multiple pregnancy, smoking, morbid obesity, women with molar pregnancy, women with missed abortionand presence of contraindication for anticoagulant therapy were excluded. All these patients were subjected to history taking including personal history, menstrual cycle pattern. Detailed obstetric history with mention on

characteristics and gestational age of recurrent losses if possibly. All patient were subjected for physical examination that include general examination, abdominal examination and pelvic examination. Relevant specific investigations were send.30 patients out of 60 were given inj. LMWH 60mg sc. Every alternate day till delivery and Tab. Micronisedprogrsterone in first trimester. Another 30 patients were given nothing except conservative routine antenatal treatment.In study group serum aPTT (partial thrombopastin time), PT (Partial Thromboplastin time) done every 15 days and watch for any systemic complications regarding bleeding complications during LMWH therapy.

OBSERVATION AND DISCUSSION

Table 1 shows that No. of subjects with unexplained pregnancy loss were maximum with 2 previous consecutive losses. i.e. 66.6% cases.

Table 1. Distribution of patients in view of no. of previous abortion in present study

No. of previous Abortion	Present study No(%)
2	40(66.6%)
3	20(33.3%)

Table 2. Distribution of pregnancy loss in different maternal age group

Maternal Age(yrs)	Rate of RPL in present study No.(%)
<25 yrs	17(28.3%)
>_25 yrs	43(71.6%)
Total	60

Maximum No of patients were in age group >25 years.

Table 3. Distribution of pregnancy loss in different trimester of pregnancy

Weeks of gestation	Present study No. (%)
1st trimester(<13 weeks)	48(80%)
2nd trimester(14 to 20 weeks)	12(20%)

Table shows that most of subjects of RPL were seen in the first trimester of pregnancy i.e. 80%

Treatment with outcome

- Live birth was achieved 82.14% (23 patients) of the LMWH group and 64.2% (18) of the control group. Maternal and neonatal side effects were not statistically significant among the study participants.
- 2 patients from study group and 2 from control group were excluded due to loss to follow up.
- In our study all 30 women in whom we have given LMWH no major complications occur.

Summary

1. In this study maximum number of subjects 40(66.6%) had 2 abortion only
2. Out of 60 subjects, majority of them 40(80%) presented with recurrent pregnancy loss on First trimester as compare to 20(20%) in second trimester
3. Out of 30 patients in study group 23 patients(82.2%) delivered successfully.
4. Out of 30 patients in control group 18 patients(64.2%) delivered successfully

Conclusion

Thromboprophylaxis with LMWH resulted in a improved live-birth rate in patient with 2 or more consecutive unexplained recurrent pregnancy loss irrespective of mode of delivery wether vaginal delivery or Cesarean delivery. Nevertheless these findings need to be confirmed in larger randomized trials. In all the patient having history of reccurent unexplained pregnancy loss thromboprophylaxis with LMWH and hormonal support with progesterone definitely improve outcome irrespective of etiology by preventing pregnancy loss as compare to conservative managment without any major adverse effect. In the presence era of modernization more and more couples are getting married at an advanced age. Premarital and pericoceptional counseling should be encouraged to explain the potential adverse effect of late marriage. Also counseled regarding adverse effect of smoking, alcohol on pregnancy and also leading stress-free life for better outcome of pregnancy. A woman should get alert as soon as she suffers from a pregnancy loss so that necessary measures can be adopted in her future pregnancies for a successful viable outcome. The most effective, cheap and easiest method for investigating unexplained pregnancy Loss is thorough history taking and physical examination.

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