

A Descriptive Study to Evaluate the Role of B-Lynch Suture in Controlling Primary Post Partum Haemorrhage (PPH)

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ABSTRACT

Aim: To determine the effectiveness of B lynch suture in controlling PPH due to uterine atony.

Study design: This was a descriptive study conducted in department of obstetrics and gynaecology, Hussain Memorial Hospital, Lahore from July 2015-Dec 2016.

Methodology: Convenient sampling method was adopted. All the patients who had primary post partum hemorrhage during the study period and fulfilling the inclusion criteria were included in study. B lynch compression suture was applied in patients who didnot respond to conservative treatment methods during the study period. The need for blood transfusion and hysterectomy was noted.

Results: Postpartum hemorrhage was controlled in 40% cases by medical management and bimanual uterine compression. The application of B lynch suture done in rest of 60% cases was 100% effective in controlling primary postpartum hemorrhage, where medical management was ineffective. No patient had need for caesarian hysterectomy. No complication was observed in puerperium.

Conclusion: The application of B lynch suture is very effective method to control primary postpartum hemorrhage. It is a simple suture and technique of application could be learned by every doctor with little practice. The suture can be used to conserve uterus, with little cost of procedure, in patients whom family is not complete.

Keywords: postpartum hemorrhage, uterine atony, B lynch suture, caesarian hysterectomy.

INTRODUCTION

Postpartum hemorrhage is still the leading cause of maternal morbidity and mortality especially in the developing countries. The maternal mortality is around 34% due to postpartum hemorrhage¹. Primary postpartum hemorrhage is blood loss from female genital tract of more than 500ml after vaginal delivery and more than 1000ml after lower segment caesarian section, within 24 hours.

The important causes of primary post partum hemorrhage are uterine atony, trauma to lower genital tract, retained products of conception and coagulation defects. The most important cause is uterine atony accounting for 75-90% of cases of primary postpartum hemorrhage².

In management of postpartum hemorrhage, uterotonics are given. If it is ineffective then bimanual compression of uterus and uterine temponade can be used. If this also fails next step is ligation of pelvic vessels which require a lot of expertise and only few gynaecologists are able to perform it. Caesarian hysterectomy is usually the final option and that too is not as simple as routine gynaecological hysterectomy. Hysterectomy also results in permanent loss of fertility of female. It is used as life

saving measure in cases of PPH³.

In 1997, a new compression suture of uterus was introduced by Christopher B Lynch. It can be used as an intermediate step between medical treatment and final surgical options. This will help to save the life of the patients as well as their fertility.

It is a compression suture which is applied around body of uterus and it compress the uterus so as to prevent further engorgement with blood⁴.

METHODOLOGY

The study was conducted in Department of Obstetrics and Gynaecology, Hussain Memorial Hospital, Lahore from July 2015 to December 2016. Approval was taken from hospital ethical committee before the start of the study. Patients who had postpartum hemorrhage in first 24 hours after delivery, vaginal or abdominal and fulfilling the inclusion criteria were included in the study. Total 50 pts had postpartum hemorrhage during study period.

Data collection method: Convenient sampling technique was used. Study Performa was designed according to the objectives of the study. Written informed consent was taken from all the patients who were included in the study. Data was analysed using SPSS version 20 and results were formulated.

Inclusion criteria:

- Parity between 1-5
- pre delivery Hb of more than 9g/dl
- patients having delivery at term were included

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Exclusion criteria:

- Parity more than 5
- Pre delivery Hb of less than 9g/dl
- patients delivering at less the 37 weeks

RESULTS

Fifty patients had postpartum haemorrhage during the study period. Age distribution of the patients was as in Table 1. Parity of patients included in the study is described in Table 2. Out of 50 patients who had postpartum hemorrhage in first 24 hours during the study duration, 20 patients responded to medical treatment and bimanual uterine compression . In rest of 30 patients B lynch brace suture was applied for controlling post partum hemorrhage and it resulted in successful control of PPH (Table 3). Initially oxytocin bolus dose of 10 IU was given and later infusion of oxytocin started. Also bolus dose of ergometrine 0.5 mg given .Response was seen in 15 cases. In those who did not responded to this medical treatment PGF2 alpha infusion was started which controlled post partum hemorrhage in 5 more cases. In other 30 cases B Lynch brace suture was applied which resulted in control of bleeding in all cases.

Table 1: Age distribution of patients

Age	n	%age
<20 years	15	30
20-35 years	30	60
36-40 years	5	10

Table 2: Parity of patients

Parity of patients	n	%age
Primipara	20	40
2-4	25	50
5	5	10

Table 3: Response of PPH to treatment offered

Treatment offered	n	%age
Medical treatment	20	40
B Lynch suture	30	60
Hysterectomy	0	0

DISCUSSION

Post partum hemorrhage is defined by WHO as: "blood loss of 500 ml or more after vaginal delivery and 1000 ml or more after caesarian section". It is a major cause of maternal deaths especially in developing countries where anaemia is also very common. The reserve of hemoglobin in females undergoing delivery is already very low. These women develop symptoms even with blood loss less than described by WHO^{4,5}.

Oxytocin is used prophylactically to reduce postpartum haemorrhage. It decreases the occurrence of PPH in our study by 40%. The results are not comparable to the study conducted by

Vijayasree M at Mamata Medical College, India which showed 60% response rate. The reason is probably proper storage of drug. The proper storage of oxytocin is required to get maximum benefit of the drug but it is usually not done in most of the developing countries. This is the major issue in less efficacy of oxytocic agents^{4,8}.

Our study showed 100% success rate of B Lynch suture in controlling postpartum haemorrhage. The results are comparable to the study conducted by Vijayasree M at Mamata Medical College, India which also showed 100% improvement in controlling postpartum hemorrhage with B Lynch suture⁴.

The results are also comparable to the study conducted by Ashraf M et al at Lady Willington Hospital, Lahore which showed 97% effectiveness of B Lynch suture⁶. The results are also comparable to the study conducted by Neelam N, Kumar SJ et al in 2010, which resulted in more than 97% control of postpartum hemorrhage⁷.

This shows that B Lynch suture is very effective and easy way to control postpartum hemorrhage. It is very easy to get expertise of applying B Lynch .All junior doctors can be made expert with little training and the benefit out of it is huge. This is observed in the study that application of B Lynch suture results in saving the uterus of patient which is necessary for future fertility. It also protects female's life and avoid major surgery i.e., hysterectomy^{9,10}.

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