

# The B-Lynch Surgical Technique for the Control of Massive Postoperative Haemorrhage an Alternative to Hysterectomy, Clinical Trial at Nishtar Hospital, Multan

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## ABSTRACT

**Aim:** To establish the efficacy of B-lynch suture as an alternative conventional surgical procedures in the treatment of postpartum haemorrhage.

**Study design:** Prospective study

**Place & duration of study:** One year clinical study was carried out in Nishtar Hospital, Multan. The stitch was applied in those: To establish the efficacy of B-lynch suture as an alternative conventional surgical procedure in the treatment of postpartum haemorrhage.

**Methods:** This prospective one year clinical study was carried out in Nishtar Hospital, Multan. A total of 20 patients for trial of B-lynch stitch technique on patients with massive postpartum haemorrhage were included in the study.

**Results:** Out of 20 patients, 11(55%) patients were primiparae and 9(45%) were multipara. In 19 (95%) patients the cause of PPH was atony of uterus and 1(5%) patient had cervical tear. Different procedures were applied in the patients. Haemorrhage was arrested in all of them.

**Conclusion:** B-Lynch brace suturing is very valuable alternative to hysterectomy in the control of massive postpartum haemorrhage.

**Keywords:** B-Lynch suture, Primiparae, Atony.

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## INTRODUCTION

Primary postpartum haemorrhage is a serious obstetrical emergency. It is defined as postpartum blood loss of more than 500 ml in 24 hours. Its incidence in developing countries is 20-24% and in developed countries 4-6% of all deliveries<sup>1</sup>. The causes include uterine atony, lower genital tract laceration, retained placenta, coagulopathy, uterine inversion and ruptured uterus. The mortality and morbidity rises with delay in diagnosis and treatment<sup>2</sup>. Uterine atony is the main cause. Its management includes a variety of acceptably methods such as simple bimanual compression, use of oxytocin, syntometrine and prostaglandins<sup>3,4</sup>.

Uterine devascularization procedures include, ligation of uterine artery, ovarian artery and internal iliac artery<sup>5,6</sup>. These procedures need skill and probably an emergency registrar has never done such complicated procedures. B-lynch brace suture is useful because of its simplicity of application, relative safety and capacity for preserving the uterus and fertility<sup>7</sup>. It is a successful alternative to more complicated surgery in the treatment of life threatening postpartum haemorrhage.

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## MATERIAL AND METHODS

This prospective one year clinical study was carried out in Nishtar Hospital, Multan. A total of 20 patients for trial of B-lynch stitch technique on patients with massive postpartum haemorrhage were included in the study. The stitch was applied on those cases where the cause of haemorrhage was uterine atony, medical management had failed and bimanual compression of uterus after opening the abdomen reduced the amount of blood loss. Patients with bleeding disorders and active liver disease were not included in the study. Similarly patients with ruptured uterus were also not included in the study.

## RESULTS

Out of 20 patients, 11(55%) were primiparae and 9 (45%) were multipara as (Table 1). In 19 (45%) patients the cause of PPH was atony of uterus while 1(5%) patient had cervical tear (Table 2). Different procedures were applied in the patients as shown in table-3. Haemorrhage was arrested in all of the 20 patients (Table 4).

Table 1: Obstetrical history (n=20)

Obstetrical history	n	%age
Primipara	11	55
Multipara	09	45

Table 2: Aetiology of PPH (n=20)

Aetiology	n	%age
Atony of uterus	19	95
Cervical tear	01	05

Table 3: Procedures applied (n=20)

Procedure	n	%age
Uterine massage	08	40
B-Lynch	05	25
Hysterectomy	03	15
Internal iliac	03	15
Repair of cervical tear	01	05

Table 4: B-Lynch outcome (n=20)

Outcome	n	%age
Uhaemorrhage	05	100
Bhaemorrhage continued	-	-

## DISCUSSION

PPH is the most important cause of maternal mortality<sup>8,9</sup>. In most cases of massive PPH after ecbotic has been used and correctable causes excluded, uterine artery, ovarian artery, internal iliac artery ligation or hysterectomy is carried out<sup>2</sup>. Some obstetricians use uterine temponade and there are a number of arguments against uterine packing in the management of PPH. In patients who are haemodynamically not stable, hysterectomy may be treatment of choice to save the lives of the patients. Internal iliac artery ligation as a specific role in the management of obstetrical haemorrhage but it is not without substantial risk of failure and complications<sup>10</sup>.

B-Lynch procedure allows conservation of uterus, menstruation and fertility. This technique is quick, simple and easy to apply. The test for potential efficacy is simple bimanual compression before closure of abdomen. If this technique fails, one can

resort to more invasive techniques. One patient expired due to renal failure. In all the rest, menstruation and productive potential were saved. Because of cost effectiveness, its application should be encouraged in developing countries.

## CONCLUSION

B-Lynch brace suturing is very valuable alternative to hysterectomy in the control of massive postpartum haemorrhage. In all 5 cases this technique proved very effective.

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