ORIGINAL PROF-812

PRIMARY ATONIC POSTPARTUM HAEMORRHAGE (PPH);
CONSERVATIVE SURGICAL APPROACH

DR. MAHNAAZ ROOHI, MBBS, FRCOG
Prof and Head of Obst & Gynae Department,
Punjab Medical College/Allied Hospital,
Faisalabad.

DR. ROBINA ALI, MBBS, FCPS
Senior Registrar,
Obstetrics & Gynae Department,
Allied Hospital Faisalabad.

ABSTRACT ... uroobs@fsd.comsats.net.pk Excessive bleeding after childbirth is a major cause of compression maternal morbidity and mortality in both industrialized and non industrialized countries. Role of (B-lynch) suture in this context is new in the management of serious postpartum atonic uterine hemorrhage and needed to be studied. **Design:** Prospective. **Period:** From Jan 2002 to June 2003. **Setting:** Obstetrics & Gynaecology Unit-I, Allied Hospital Faisalabad (affiliated with PMC). **Patients & Methods:** All patients with primary atonic PPH during this period were included where conventional oxytocin had proved ineffective. A simple suture technique B-lynch (brace suture) was used to preserve future fertility. **Results:** Total 8 cases of serious PPH were managed by simple B-lynch suture. Satisfactory hemostasis was achieved in seven cases and in one patient hysterectomy was done to control hemorrhage. **Conclusion:** Compression suture placed into the postpartum uterus may provide a simple first surgical step to control bleeding when routine oxytocin measure have failed.

Key Word: PPH, B-Lynch Suture

INTRODUCTION

PPH is the most common cause of maternal morbidity and mortality in Pakistan[1]. 13% of all deliveries may lead to PPH with a blood loss of more than one litre while life threatening hemorrhage occurs 1 in 1000 deliveries[2]. It has been estimated that worldwide over 125,000 women die of PPH each year[3] 8-10% of maternal mortality in developing countries occurs directly due to massive atonic hemorrhage.

Uterine atony is the most common cause of PPH in about 75-90% cases, other causes include placenta accreta, lower genital tract lacerations, coagulopathy, uterine inversion and ruptured uterus[1].

Although PPH cannot always be anticipated, the cornerstones of effective treatment remain rapid diagnosis and intervention. The traditional method of management include the use of oxytocins, ergometrine and prostaglandins before proceeding to ligation of internal iliac arteries and even hysterectomy[5].

In the recent years interest has surged in the surgical compression suture for treating PPH. Of the several techniques the B-lynch suture initially described by Christopher B-lynch in 1997 has gained utmost popularity[6] The theory behind this technique is

mechanical compression of uterine vascular sinuses that prevent further engorgement with blood and continued hemorrhage[7]

PATIENTS & METHODS

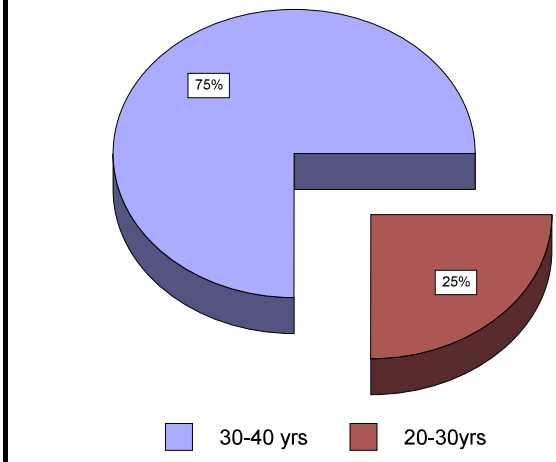
This study was carried out in gynae/obs. ward at Allied Hospital from Jan 2002 to Jun 2003 with primary PPH.All patients of primary PPH during this period were included where conventional oxytocin had proved ineffective. All patients where PPH was controlled by conventional oxytocin were excluded. A simple B-lynch suture technique was used. Patients were selected according to their age, future fertility, cardiovascular status and clotting profile.

Suture material that was used in most cases was chromic catgut No.2. Absorbable sutures were preferred. Patients were managed and observed in the recovery room for 24 hours after application of B-lynch to see any derangement in cardiovascular status or bleeding from genital tract.

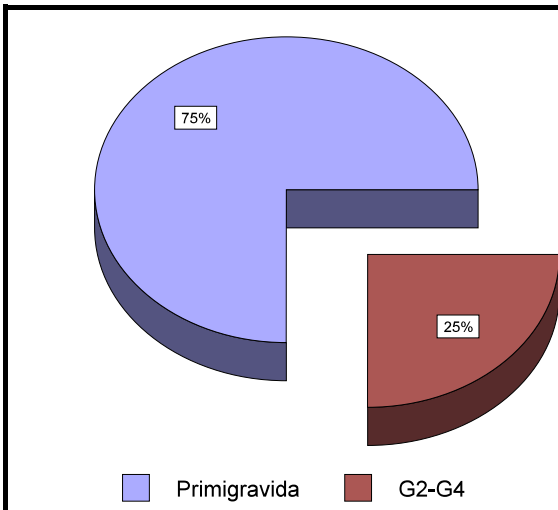
RESULTS

In this descriptive study, 8 patients were selected for B-lynch suture. In 7 cases it was successful and bleeding was controlled, patients remained well after application of this suture.

In one case obstetrical hysterectomy had to be done because of uncontrolled hemorrhage. In one case hemorrhage was arrested by simple suture, but later on patient had multiorgan failure and died after one week of admission.



Graph-1. Distribution according to age



Graph-2. Distribution according to parity.

Table -I Distribution according to age

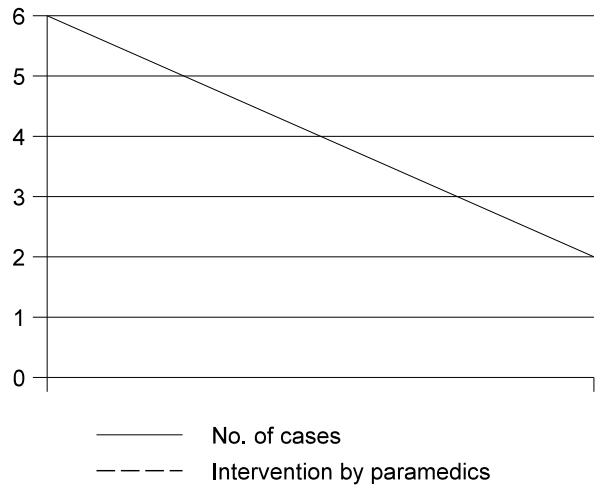
Age of patients (year)	No. of Patients	%age
20-30 years	6	75%
30-40 years	2	25%
Total	8	100%

Table - II Distribution according to parity

Parity	No. of Patients	%age
Primigravida	6	75%
G_2 - G_4	2	25%
Total	8	100%

Table- III Distribution according to intervention by paramedics		
History of intervention	No. of patients	%age
Yes	6	75%
No	2	25%
Total	8	100%

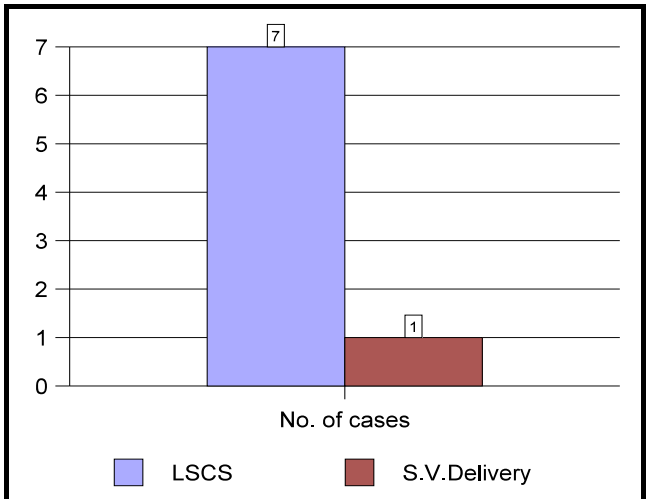
Table-IV Distribution according to mode of delivery		
Mode of delivery	No. Of patient	%age
L.S.C.S	7	87.50
Spontaneous Vaginal Delivery	1	12.50
Total	8	100.00



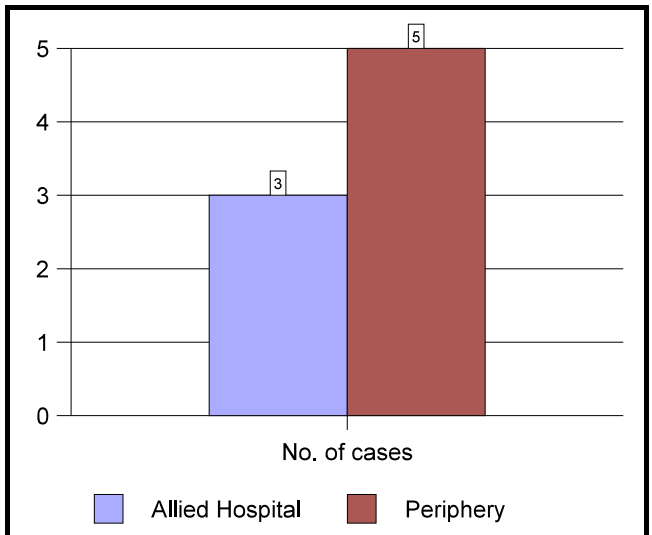
Graph-3. Distribution according to intervention by paramedics

Table -V Distribution according to place of delivery		
Place of delivery	No. of patients	%age
Allied Hospital	3	37.5%
Periphery	5	62.5%
Total	8	100%

Table-VI Distribution according to blood transfusion		
No. of blood transfusion	No. of Patients	%age
1 - 2	1	12.5%
2 - 4	3	37.5%
5 and above	4	50%
Total	8	100%

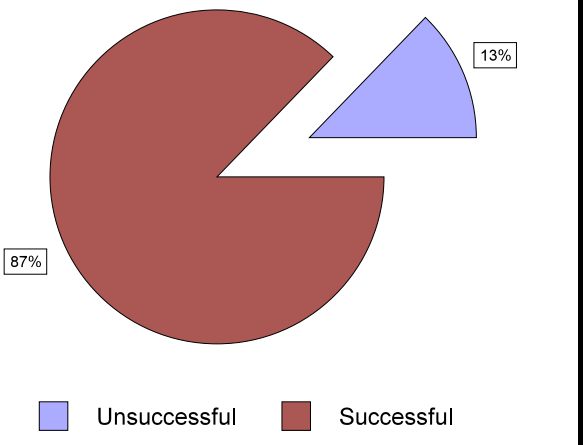


Graph-4. Distribution according to mode of delivery



Graph-5. Distribution according to place of delivery

Table - VII Distribution of outcome		
Out come	No. of patients	%age
Successful	7	87.5%
Unsuccessful	1	12.5%
Total	8	100%



Graph-6.Distribution of outcome

DISCUSSION

Hemorrhage might play the most important dramatic role of the three great causes of death in maternity. A variety of surgical techniques have been proposed to avoid hysterectomy, each is associated with identifiable benefits and risks. Depending on the availability of resources, anaesthesia, interventional radiology and cost, most of these techniques cannot be applied in routine practice and in an emergency situation.

Our study is to describe the role of B-lynch suture in massive obstetrical hemorrhage. The net effect of the suture is to compress the uterus as in bimanual compression. The technique used is same as described by Dr. B-lynch. The application of the suture itself is far less complicated than either internal iliac artery ligature or hysterectomy. The operating time is probably shorter, so duration of anaesthesia is less as compared to obstetric hysterectomy.

The patients are in a precarious state and can stand shorter anaesthesia and operation times much better. The suture material is inexpensive and readily available.

In our study, majority of patients are primiparas or patients with bad obstetric history . Age is also an important criteria. In 7 patients it proved helpful (87.5%) and life saving. These results are comparable to the results of Dr. Lynch case report 5 and the case reports of Syeda Batool Mazhar[8], where no serious complication was found after application of this stitch.

In our study one patient had multiorgan failure because of septicemia. This result is comparable to the case report published in obstetric gynaecol by M-Ochoa in March 2002, where pyometra was found in one patient after application of this stitch in immediate postpartum period[9]. So in patients having chorioamnionitis or badly handled by untrained midwives it should not be a first choice for control of massive PPH.

CONCLUSION

The invention of the B-lynch brace suturing technique has proved invaluable in the control of massive PPH as an alternative to hysterectomy. It might be a valuable addition for surgical treatment of PPH and great advantage in young patient with restoration of future fertility.

REFERENCES

1. Ashraf M, Sheikh NH, Sheikh AH, Yousaf AW. Maternal mortality **A 10 years study at Lady Willington Hospital Lahore** 2001; 7: 205-7.

2. Macqhail S, Fitzgerald J. **Massive postpartum haemorrhage**. Curr Obstet Gynecol 2001; 11: 106-14.

3. Hayman RG, Arulkumaran S, Steer PJ. Uterine compression suturres. **Surgical management of**

postpartum hemorrhage, p Obstet Gynecol 2002 Mar 99(3**)**: 502-6.

4. Stanco LM, Schrinner DB, Panel RH, Misell DR. **Emergency peripartum haemorrhage and associated risk factors**. Am J obstet Gynecol 1993; 163: 879-83.

5. Lynch CB. **The B-Lynch surgical technique for the control of massive PPH**. Br J obstet Gynecol 1997; 104: 372-5.

6. Cho JH, Jun HS, Lee CN et al. **Hemostatic suturing technique for uterine bleeding during cesarean delivery**. Obstet gynecol 2000; 96: 129-31.

7. Roman AS, Rebarber A. **Seven ways to control postpartum hemorrhage 2003**; Mar 3; www.contemporary OB/GYN.com

8. Mazhar SB, Yamin S, Gulzar S. **Management of massive postpartum hemorrhage** by "B-Lynch" Brace suture. JCPSP, 2003; 13(1**)**: 51-52.

9. Ochoa M, Allaire AD, Stitely ML. **Pyometra after hemostatic square suture technique**. Obstet Gynecol 2002; 99(3**)**: 506-9.