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Role of Bilateral Internal Iliac Artery Ligation (BLIIAL) In Uncontrolled Haemorrhage during Postpartum or Hysterectomy Procedure

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Original Research Article

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Abstract: One third of maternal deaths are due to hemorrhage especially postpartum haemorrhage. In these situations BLIIAL is lifesaving. Internal iliac artery supply uterus, bladder, rectum, vagina and other pelvic organs. Intemal iliac artery ligation secure haernostasis by reduction in pulse pressure mean arterial pressure by 25-50% and blood flow by 50%, which promotes clot formation. Study done during 2015 to 2017 with aims and objectives to know outcome of haemostasis after BlIAL and reproductive life after PPH. A total number of 18 emergencies BLIIAL were performed in Patna medical college and hospital and MGM hospital patna for different indications of surgery. In this small study we concluded that haernostasis and reproductive life were well secured after BLIIAL.
Keywords: BLIIAL (bilateral internal iliac artery ligation), PPH (post-partum haemorrhage).

INTRODUCTION

Internal iliac artery supply uterus, bladder, rectum, vagina and other pelvic viscera, In internal iliac artery ligation secure hemostasis by reduction in pulse pressure, mean arterial pressure by 25-50% and blood flow by 50%,which promotes clot formation. The ligation converts arterial system into venous system leading to stable clot formation thus brings hemostasis [l].

One third of maternal deaths are clue'to hemorrhage especially post-partum haemorrhage (PPH) and elective gynecological surgery. In this situation, BLIIAL is lifesaving. Sir HOWARD KELLY (1893) was the first person to do this procedurel [2].

It is one of the procedures to control pelvic haemorrhage. If bleeding vessels during pph or operative. Haemorrhage not identified and conventional method of control haemorrhage, failed then BLIIAL maybetheprocedureofchoice [3].

AIM AND OBJECTIVES

BLIIAL done to control pelvic haemorrhge in situations where other conventional methods fail between 2015-2017 at private clinic and tertiary health care centre with aims and objectives of

- Outcome of haemostasis after BLIIAL in PPH (Due to uterine atony or after LSCS) and elective hysterectomy cases.
- Reproductive life after BLIIAL procedure in PPH group of Patients.

MATERIALS AND METHODS

A total number of 18 emergencies BLIIAL were performed in obstetrics and gynecological cases of Patna medical college hospital and MMNH hospital. Out of 18 patients 8 patients were subjected to BLIIAL at referral centre (a leading hospital) and other 10 were done at private hospital.

In ten cases surgeon was called by the gynecologist at private centre and other eight cases: were reffered to PMCH, PATNA by the gynecologist within 5 to 8 hrs of surgery when they fail to control haemorrhage by conventional method.

In total 18 cases 10 patients having surgery due to PPH (atonic uterus) and another in 8 cases bleeding occurs during elective procedure (PPH due to LSCS, 5 cases and 3 cases of elective hysterectomy).Three year follow up of all cases were done.

INCLUSION CRITERIA

Patients with uncontrolled bleeding who had been undergoing LSCS or hysterectomy and uncontrolled PPH due to uterine atony after failed conventional procedure to stop bleeding

EXCLUSION CRITERIA

The patients with normal intraoperative blood losses were excluded from study and cases in which bleeding stop by conventional method.

SURGICAL TECHNIQUE

The entire patient in this study underwent BLIIAL by a Tran's peritoneal approach under spinal anesthesia, General anesthesia through an existing incision for the primary surgery.

- Making incision over the peritoneum B/W the round ligament and the fallopian tube of the uterus, one reaches directly on the division of common iliac artery by blunt dissection.
- Ureter remains medially in the medial fold of peritoneum and away from the vessels in this approach.
- After identification and isolation the internal iliac arteries were ligated 2 to 3 cm away from its division (to avoid injury to external iliac artery) by a no absorbable suture [4].
- Feel for femoral pulses after ligation, to exclude external iliac artery ligation.
- Intraperitoneal drain was given before closure of abdomen.

DISCUSSION AND RESULT

In PPH cases, age group ranged from 8-30yrs and elective hysterectomy group of patients age ranged from 40-50 yrs. In total 18 cases 1O cases BLIIAL were performed at private clinic and 8 cases at tertiary health care center after referral frorn obstetrics and gynecology surgeon within 5 to 8 hours of surgery. Out of total 15 cases for PPH 8 was prim gravida and another seven was multigravida.

Out of total l8 cases no mortality reported and hemostasis were secured in all 18 cases le. Result was 100%. During follow up of 3 years out of 15 patients of reproductive age group (18-30) years three patients not turned up for follow up i.e. lost during study due to low socioeconomic level and low educational level. In the remaining 12 patients during 'follow up for three years. Six did not need another child. So used contraceptive measures and rest six conceived during follow up.

CONCLUSION

In India according to 2001-2003 SRS, Haemorrhage is the major cause of maternal mortality, in certain situations. The surgical intervention and BLIIAL saves lutes. This procedure not only save life at the patient but also preserves the reproductive capacity in child bearing patients.

In this small study hemostasis and reproductive life were well secured filter BLIIAI. In the group of patients who were sent from one center for uncontrolled bleeding. Timing of patient transfer was always a constraint. To elaborate always a scope of further larger studies

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