

CASE REPORT

INTERNAL ILIAC ARTERY LIGATION AFTER CAESERIAN HYSTERECTOMY IN POST-PARTUM HAEMORRHAGE LIFE SAVING PROCEDURE

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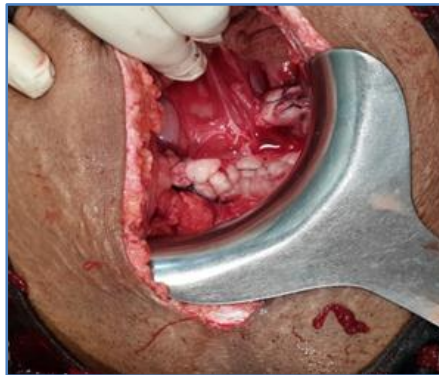
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INTRODUCTION: Internal iliac artery (Hypogastric) supplies the pelvic viscera. Bilateral ligation of the internal iliac arteries is a safe, rapid and very effective method of controlling bleeding from genital tract. It is also helpful in massive broad ligament hematoma, in torn vessels retracted within the broad ligament, and even in postoperative hemorrhage after abdominal or vaginal hysterectomy where there are no definitive bleeding points detectable. Bilateral ligation of internal iliac arteries is also helpful in life threatening hemorrhagic conditions like postpartum hemorrhage, placenta previa, cervical and vaginal tear, cervical pregnancy and uterine rupture etc.¹

Ligation of internal iliac artery was first performed by Kelly² with a success rate 95% and without any major complication.

CASE REPORT: Para 2, living 2 with post caesarean total hysterectomy presented to our hospital with bleeding from vagina. She had undergone caesarean section for prolonged labour. After extraction of baby she has postpartum haemorrhage which was not managed by medical treatment so after subtotal hysterectomy also the bleeding was not controlled then proceeded for total hysterectomy. She was transfused with adequate blood and blood products like fresh frozen plasma, platelets.

After an hour after the procedure the patient had bleeding per vagina for which she was referred to our hospital, after arranging adequate blood and blood products patient was posted for laparotomy. During the procedure decision for bilateral internal iliac artery ligation was taken and done, along with this continuous vault suturing done, haemostasis secured. Abdomen closed after keeping abgel. Per operatively and post operatively adequate blood was transfused, patient withstood the procedure. Post-operative period was uneventful, sutures removed on post-operative day 8 and discharged.

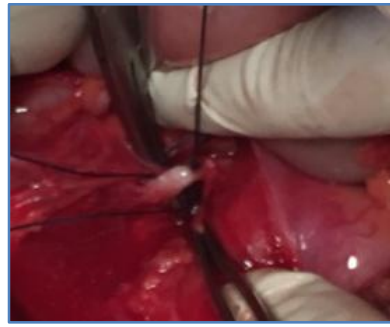


Vault bleeding after total hysterectomy –post caesarian

CASE REPORT



Common iliac artery bifurcation into internal and external iliac artery



Internal iliac artery ligation

DISCUSSION: Uterine atony is the commonest cause of life-threatening obstetric haemorrhage. Major post-partum hemorrhages occur in approximately 4% of vaginal and 6% of cesarean deliveries.³

Bilateral internal iliac artery ligation is an effective lifesaving method to control obstetrical and gynaecological hemorrhage and a hysterectomy can often be avoided.

Following ligation of internal iliac artery, there is a reduction of 85% in pulse pressure and 48% in the blood flow in the arteries distal to the ligation.⁴ Thereby the arterial pressure approaches the venous pressure and is rendered more amenable to hemostasis by a simple clot formation. However, three principal collateral circulations involving vessels of smaller diameter prevent ischaemia to the pelvis. These collaterals are able to undergo hypertrophy in the event of a subsequent pregnancy. Specific collateral arteries are lumbar-iliolumbar, middle sacral-lateral sacral, superior haemorrhoidal- middle haemorrhoidal.⁵

Nizard J et al state that BIL for postpartum hemorrhage is not responsible for secondary infertility, uterine contractility disorders, placental perfusion insufficiency, fetal anomalies or IUGR. BIL is mainly indicated in PPH due to uterine atony rather than due to obstetric trauma.⁶

Complications of this technique with proximal ligation of the internal iliac arteries i.e. buttock claudication, impotence, bladder and bowel necrosis etc had been reported in an arteriosclerotic patient.⁷

Mukherjee et al⁸ performed 36 cases of internal artery ligation with a success rate of 83.3% in 6 years.

Pelvic arterial embolization is the alternative available lifesaving procedure to BIL and hysterectomy.⁹ Collins C.D et al reported a case of successful arterial embolization following hysterectomy and BIL and concluded that embolization could still be successful even when performed after surgery.¹⁰

CONCLUSION: BIL is a safe, effective procedure for treating life-threatening obstetric haemorrhage with preservation of future fertility. It should be the operation of choice to control severe bleeding in young women of low parity. Though scope of BIL is reduced due to newer modalities to control hemorrhage, still it is choice of option in low resource countries.

CASE REPORT

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