

# Causes of Emergency Hysterectomy in AL-Fallujah Maternity & Children Teaching Hospital

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## Abstract

**Objective** is to detect hysterectomy and maternal morbidity and mortality that occurs in emergency hysterectomy in secondary hospital . This retrospective study of 9 patients done for obstetrics indications from January 2018 to January 2019, in department of Gynecology and obstetrics AL-Fallujah teaching hospital. patients and methods 9 cases at this study period underwent emergency hysterectomy , data collected from hospital record their personal data , chief compliant , past obstetric ,cause of hysterectomy and complication was recorded. Result There were 9 cases emergency hysterectomies done for obstetric condition. The indications and surgical complications was studied.

**Conclusion :** The emergency hysterectomy is mandatory to save life of patients. The outcome is depending on the decision time and the expert of the judgment because any delay may cause increase mortality and morbidity

**Keywords:** Emergency; hysterectomy; AL-Fallujah Teaching Hospital.

## Introduction

Emergency obstetric hysterectomy mean uterine removal at any time of cesarean section ,after caesarian section ,after normal delivery or in perperial period in order to save the patients .(1)

Horatio Storer did ported the first operation at 1898 ,but it was un successful . After seven years Eduardo Porro did the first successful operation with subtotal hysterectomy it is called“PORRO OPERATION“(2)

In developed countries, hysterectomy is done mainly for sterilization and uterus tumors .In developing world it is done mainly when there is frailer of controlling of hemorrhage after delivery .(3) The rate ranges from 0.4 to 2.5 per 1000 births and has risen significantly during the past few decades. Most of this increase is attributed to the increasing rates of cesarean delivery and its associated complications in subsequent pregnancy (4).

Hysterectomies, approximately to One half to two thirds are total, whereas the remaining cases are supra cervical (5) .

**Table 1: Some Indications for Peripartum Hysterectomy(7)**

- |                                |
|--------------------------------|
| 1-Uterine atony                |
| 2-Abnormal placentation        |
| -Bleeding                      |
| -Accrete syndromes             |
| 3-Uterine extension            |
| 4-Uterine rupture              |
| 5-Cervical laceration          |
| 6-Postpartum uterine infection |
| 7-Leiomyoma                    |
| 8-Invasive cervical cancer     |
| 9-Ovarian neoplasia            |

Hysterectomy mainly done due to uterine atony that occur in 1:1000 delivary(5) Post partum cause

of hysterectomy occurs if the patients have previous caesarian section and the placenta implant over the previous scar(6) These as well as other less frequent indications are found in table (1) For example, large leiomyoma may preclude satisfactory hysterotomy closure and necessitate Hysterectomy . Or, postpartum infectious morbidity from an infected , necrotic uterus will prompt uterine removal for recovery (7).

Uterine atony is failure of contraction of the muscles after separation of the placenta that cause sever bleeding .The majority of PPH cases (75-80%) are due to uterine atony .

The factors predisposing to postpartum uterine atony are listed in table (2).

**Table (2) FACTORS PREDISPOSING TO POSTPARTUM UTERINE ATONY (8)**

Previous postpartum hemorrhage
Prolonged labor
Grand multiparity (a parity of 5 or more)
Conditions that Overdistended uterus
Multiple gestations
Polyhydramnios
Fetal macrosomia
Oxytocic augmentation of labor
Precipitous labor (one lasting <3 hr)
using of Magnesium sulfate in preeclampsia
Chorioamnionitis
Using of halogenated anesthetic drugs
Uterine leiomyomata
Vitamin D deficiency
Genetic and epigenetic factors (maternal, environmental, and fetal)

Studies have suggested that among patients having a vaginal delivery, 18% of the variation in excessive postpartum bleeding may be attributable to maternal genetic factors, 11% to maternal environmental factors, and 11% to fetal genetic effects.

Most of the blood loss due to uterine atony occurs from the myometrial spiral arterioles and decidual veins that previously supplied and drained the intervillous spaces of the placenta. As the contractions of the partially empty uterus , hemorrhage happens and continue and stopped if the uterine muscle contrac and press the blood vasculature and cause ligation physiologically(8). The hemorrhage occurs also when there is rupture of uterus especially when there is a rupture scar ,from manipulation ,trauma ,congenital anomaly of the uterus or may be occur spontaneously .

Rupture also occur in abnormal delivery, operated labor and placenta accrete Placenta accrete is abnormal attachment between placenta and lining of the uterus with loss of decidua basalis. the incidence of placenta accrete occur in about 3:1000 . Other important risk factor are previous cesarean section of the uterus .(9)

Placenta percreta causes invasion of urinary bladder that presented with hematuria . Placenta accrete mostly diagnosed antenatally by radiological facilities (ultrasound is the preferred .). Placenta previa mean presence of the tissue of placenta on or closely to the internal cervical os .(10)

There are two types of placenta previa in recent classification .The true placenta previa in which placenta covers the internal os completely .The second type is low lying placenta in which the placental tissue presented within two cm away from cervical os and doesn't cover it . The incidence of placenta previa is about 1 : 200 births. The placenta previa occur upto 6% in second trimester and cause painless vaginal bleeding . The bleeding occur at least once in about 70% to 80% of the patients.(11). Risk factor are Increasing parity, age, race , Cigarette smoking and cocaine use , Prior placenta previa , Prior uterine surgery and prior cesarean delivery (10) .

Logically , the risk factors for peripartum hysterectomy mirror the risks of these indicated complications Major complications of peripartum hysterectomy include increased blood loss and greater risk of urinary tract damage Blood loss is usually appreciable because hysterectomy is being performed for hemorrhage that frequently is torrential , and the procedure itself is associated with substantial blood loss (7).

The maternal death mainly caused by shock ,DIC ,complication of operation and post operation complication .

The hysterectomy had been reduced due to advanced method of management of the labor, use of antibiotics, oxytocin and prostaglandins. It is also decreased by use of internal iliac artery ligation (11).

After anticipated or planned cesarean hysterectomy, there are lower rates of blood loss, less need for blood transfusions and fewer urinary tract complications compared with emergent procedures (12).

This study attempts to highlight the extent of availability and utilization of antenatal services, identify avoidable factors and stress the need to organize health care services so as to improve maternal and fetal outcome.

The decision about Hysterectomy should be made by an experienced consultant clinician (preferably after discussion with a second experienced consultant clinician) and the procedure should be carried out by a surgeon who is experienced in carrying out hysterectomy, do not delay hysterectomy until the woman is in extremis or while less definitive procedures with which the surgeon has little experience are attempted. Resort to hysterectomy sooner rather than later (especially in cases of placenta accrete or uterine rupture). Subtotal hysterectomy is the operation of choice in many instances of PPH requiring hysterectomy unless there is trauma to the cervix or lower segment (13).

Aim of this Study is to determine the indications of obstetric Hysterectomy, maternal morbidity and maternal mortality associated with emergency obstetric hysterectomy at a secondary hospital, Department of Gynecology and obstetrics.

### Patients and methods

We retrospectively analyzed by case series a total of 9 women who underwent emergency peripartum hysterectomy between January 2018 and January 2019 at Al-Fallujah teaching hospital, department of obstetrics. The data was collected from the hospital records. All women included in this study underwent hysterectomy within first hour of delivery.

The medical record sheets of all identified women were reviewed regarding Age, occupation, geographic area, blood group, parity, miscarriage, multiple or single pregnancy, chief complaint at admission, past obstetric history which include: (previous c/s, myomectomy, hysterotomy, placenta previa or accrete, any

previous pelvic surgery), causes of hysterectomy which include: (placenta previa or accrete, rupture uterus, H. mole, and uterine atony) and complication in operative room which include: (bladder injury, bowel injury, and ureteric injury).

## Results

### Case Finding:

Case 1: A 30 years old female, house wife from rural area o- blood group P5M0 presented to ER with abdominal pain and slight vaginal bleeding for 30 min before admission. The pain started after few minutes from receiving IM injection of oxytocin at mid wife house. After examination she diagnosed as uterine rupture and she underwent emergency C/S in operative room surgeon decided to do emergency hysterectomy; The surgery was associated with ureteric injury.

Case 2: A 39 years old female, house wife from Urban area o- blood group P6M0 single pregnancy admitted as elective c/s and she was known case of placental abruption, she had previous 3 C/s and other past obstetric history was negative. The patient prepared for surgery and at operative room surgeon discovered multiple adhesion and bleeding started so surgeon decided to do emergency hysterectomy; The surgery was associated with bladder injury.

Case 3: A 35 years old female, house wife from rural area A+ blood group P5M0 single pregnancy presented to ER with loss of consciousness patient loss her consciousness during labour at mid wife; she received IM injection of oxytocin at mid wife house, she had previous 3 C/s and other past obstetrical history was negative. Examination done and she diagnosed as uterine rupture so she underwent emergency C/S and, in operative room surgeon decided to do emergency hysterectomy; The surgery was associated with bladder injury.

Case 4: A 38 years old female, house wife from Urban area A+ blood group P6M0 single pregnancy presented to ER with vaginal bleeding, she had previous 6 C/S other past obstetrical history was negative and she underwent emergency C/S, and in operative room there was placenta accrete with multiple adhesion and severe bleeding so patient underwent emergency hysterectomy; The surgery was associated with bladder injury.

Case 5 : A 29 years old female , house wife from Urban area B- blood group P6M1 single pregnancy admitted for elective C\S . She had 3 previous C\S and other past obstetric history was negative. The patient prepared for surgery during operation the surgeon discovered there is placenta accrete and multiple adhesion , so decided to do emergency hysterectomy ; The surgery was associated with bladder injury .

Case 6 : A 36 years old female , house wife from rural area B+ blood group P8M0 single pregnancy presented to ER with abdominal pain . She had 3 previous c\s and other past obstetrical history was negative. The patient prepared for surgery , during operation the surgeon discovered there was placenta accrete and multiple adhesion , Emergency hysterectomy was done ; the surgery was associated with bladder injury .

Case 7 : A 30 years old female , house wife from Aruban area O- blood group P5M0 single pregnancy presented to ER with vaginal bleeding . She had 4 previous c\s and other past obstetrical history was negative . The patient prepared for surgery during operation surgeon discovered there was placenta accrete with multiple adhesion there was severe bleeding so decided to do emergency hysterectomy ;The surgery was passed without complication .

Case 8 : A 30 years old female , house wife from Urban area O+ blood group P5M0 single pregnancy presented to ER with vaginal bleeding and abdominal pain after received IM injection of oxytocin at mid wife . She had 1 previous c\s and other past obstetrical history was negative after examination she diagnosed as uterine rupture and she underwent emergency C\S during surgery there was severe bleeding started bleeding and decided to do emergency hysterectomy ; The surgery was passed without complications .

Case 9 :A 21 years old female , house wife from Urban area O+ blood group P1M0 single pregnancy presented to ER with abdominal pain for 30 min before admission pain colic in nature radiated to the back associated with gash of watery vaginal discharge. Past obstetric history was negative . Examination done and she referred to vaginal delivery room after 4 hours she delivered Baby and after less than 30 min delivered the placenta and bleeding started and not stopped by conservative measures so referred to operative room also all available measure done without benefit , so the surgeon decided to do Emergency hysterectomy, The

surgery was passed without complications.

## Discussion

Peripartum hysterectomy is a major surgical intervention usually done as an urgent procedure that associated with significant maternal and fetal complications . (14) .

Nine cases of emergency hysterectomy in the study period from January 2018 to January 2019 at Al-Fallujah teaching hospital ,department of Gynecology. Eight cases out of 9 that underwent obstetric hysterectomies were multigravida .

Most common indication of hysterectomy in this study was placenta accrete

5 from 9 cases underwent emergency hysterectomy due to placenta accrete . All patient had previous c\s .

The second most common was ruptured uterus 3 from 9 cases underwent emergency hysterectomy due to ruptured uterus . And one case due to uterine atony. The age of females ranging from 21 to 39 year and all of them were house wife, most of them from Aruban area.

From case series three patients were diagnosed with ruptured uterus they went to mid wife and received IM injection of oxytocin and two of them had previous c\s. and two of them from rural area. Intraoperative records revealed 5 of these cases had bladder injury , 1 ureteric injury and 3 of them surgeries ended without complications .

## Conclusion

1. Peripartum hysterectomy is the “near miss event in “both developed and developing countries. It has been described as one of the riskiest and most dramatic operations in modern obstetrics. It is therefore associated with significant maternal mortality and morbidity. Its prevention is the foremost goal in obstetrics

2. Identification of high risk cases, early referral, timely performance of caesarean section careful monitoring and resort to conservative procedures can reduce the near miss event.

3. Most difficult situation is doing hysterectomy in primigravida or in patients with no living children. So it should be performed judiciously weighing the need to sacrifice the obstetric future of the patient in favors of patient’s life .

4. Special provision of blood transfusion , dialysis facilities and good ventilatory support is necessary round the clock

5. Availability of multidisciplinary team involving an experienced Obstetrician, anesthetist ,urologist interventional radiologist and a physician round the clock is necessary .

6. Availability of communications and transport facilities for these emergency patients are required. Provision of emergency ambulance facility services provided by the government has played a huge role in quicker access for health care facilities .

7. Further such measures will help in reducing maternal and perinatal morbidity in emergency peripartum.

**Conflict of Interest:** non

**Source of Findings:** self findings.

**Ethical Clearance:** This research was carried out with the patient's verbal and hospital approval before the cases was taken.

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