

# Heterotopic Pregnancy with Ruptured Left Tubal Ectopic Pregnancy: A Case Study

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**Abstract:** *Heterotopic pregnancy (HP), a rare occurrence where both intrauterine and ectopic pregnancies coexist, presents significant challenges in diagnosis and management. This condition is particularly complicated when the ectopic pregnancy ruptures, leading to life-threatening haemorrhage. We present a case of a 32-year-old woman with a history of two previous cesarean sections, who presented at 8 weeks of gestation with acute abdominal pain, dizziness, and vaginal spotting. Ultrasound revealed an intrauterine pregnancy along with a ruptured left tubal ectopic pregnancy. The patient was hemodynamically unstable, requiring immediate surgical intervention. A laparoscopy was performed, resulting in a left salpingectomy and stabilisation of the patient. The intrauterine pregnancy was preserved and closely monitored. The patient had a successful pregnancy outcome, delivering a healthy baby via cesarean section at term. This case highlights the importance of early detection, prompt surgical intervention, and the potential for a favourable outcome for intrauterine pregnancy, even in the presence of a ruptured tubal ectopic pregnancy in a heterotopic pregnancy scenario.*

**Keywords:** Heterotopic pregnancy, Left tubal ectopic pregnancy, Salpingectomy, infection, Endometriosis, Hemorrhage, Surgical intervention

## 1. Introduction

A heterotopic pregnancy with a ruptured left tubal ectopic pregnancy is a rare pregnancy complication where both an intrauterine pregnancy and an ectopic pregnancy occur at the same time and the ectopic pregnancy has ruptured. The ectopic pregnancy usually ruptures between 6 and 16 weeks and the later it ruptures the more severe the bleeding and the higher risk of death.

### Causes and Risk Factors

- Previous ectopic pregnancy
- Tubal disease
- Endometriosis
- Intrauterine device (IUD)
- Smoking
- Age
- Family history
- High hormone level

### Diagnosis

- Ultrasound, transvaginal and transabdominal
- Blood test (complete blood count)
- Elevated hCG level

## 2. Case study of Mrs. X

Mrs. X a 28yrs old woman was admitted to Aakash Hospital with complaints of vaginal bleeding since yesterday, and abdominal pain for 2 days. Her last menstrual period was 03/01/2019 following a detailed investigation and ultrasound scan she was diagnosed with Heterotopic pregnancy with ruptured left tubal ectopic pregnancy she was found to be conscious and oriented. Her vital signs were as follows:

Temperature: 98.6°f  
Pulse: 111 beats/min  
Spo2: 98%  
Respiration: 24 breaths/min  
CVS: S1 S2 + No Murmur

RS: NVBS+ No added sounds

Abdomen: Soft, BS +

The ultrasound report showed a single live intrauterine gestation 6 to 7 weeks left ruptured tubal ectopic pregnancy was noted on ultrasound.

### 2.1 Lab reports

Hb: 8.0 gms/dl  
Pcv (HCT): 24%  
Sodium: 140mmol/l  
Potassium: 3.8mmol/l  
Chloride: 103mmol/l  
Bicarbonate: 19mmol/l

### 2.2 Signs/Symptoms

Book Picture	Mother Picture
Abdominal pain	Present
Vaginal bleeding	present
Shock	Not present
Peritoneal irritation	Not present
Uterine enlargement	Present

### 2.3 Surgical Management of Heterotopic Pregnancy with Ruptured Left Tubal Ectopic Pregnancy

Surgical management of a heterotopic pregnancy, particularly one with a ruptured left tubal ectopic pregnancy, is critical for preventing life-threatening complications, such as hemorrhagic shock, and ensuring the best possible outcome for both the mother and the intrauterine pregnancy. The goal of surgery is to control bleeding, preserve the viable intrauterine pregnancy, and address the ectopic pregnancy. The following outlines the surgical approach and management steps:

#### 1) Preoperative Considerations:

Initial Stabilization: Before surgery, the patient must be stabilised. This includes securing IV access, administering

fluids (e. g., saline or Ringer’s lactate), and potentially blood transfusion if significant blood loss is anticipated.

Imaging and Diagnostics: Confirm the diagnosis of heterotopic pregnancy through ultrasound and measure serum hCG levels to evaluate the viability of the intrauterine pregnancy and the extent of the ectopic pregnancy.

**My patient has undergone:**

The patient underwent general anaesthesia, and a left salpingectomy was performed using a harmonic scalpel. Hemostasis was achieved. The hemoperitoneum was suctioned, and a saline wash was given. The pneumoperitoneum was released, and the ports were closed with a stapler. The bladder was catheterized, and the urine was clear. "



**2.4 Complication**

- Infection
- Hemorrhage
- Fertility issues
- Anesthesia - related complication
- Severe abdominal (or) pelvic pain
- Vaginal spotting (or) bleeding
- Dizziness (or) fainting

**2.5 Nursing Management**

- Assess and monitor vital signs
- Advice the mother to take adequate bed rest
- Advice the mother to take plenty of oral fluids

**3. Nursing Process for Mother Heterotopic Pregnancy with Ruptured Left Tubal Ectopic Pregnancy**

**Assessment**

- Assess for Vaginal bleeding, spotting
- Assess for low abdominal cramping
- Assess for urine output
- Assess for pain

**Nursing Diagnosis**

- Imbalanced Fluid volume related to fluid loss from ruptured ectopic pregnancy and surgery
- Acute pain related to abdominal incision

- Anxiety related to the complex nature of the pregnancy and potential loss of fertility
- Disturbed body image related to loss of a fallopian tube and changes in reproductive potential
- Deficient Knowledge related to the nature of heterotopic pregnancy, surgical procedures, and future fertility

#### **Planning**

- Monitor for bleeding or spotting episodes
- Monitor intake and output chart
- Provide opportunities for counselling and support
- Provide teaching related to self - care

#### **Implementation**

- Ensure the patient's vital signs remain stable, monitoring for any signs of hemorrhagic shock or infection.
- Administer IV fluids and blood products as ordered to prevent hypovolemia and maintain adequate circulation.
- Monitor for signs of pain, and administer prescribed analgesics as appropriate to ensure comfort
- Observe for vaginal bleeding and cramping

#### **Evaluation**

Evaluating a heterotopic pregnancy with a ruptured tubal ectopic pregnancy involves a combination of clinical assessment, imaging studies, and laboratory tests to confirm the diagnosis, assess the severity of the condition, and guide management decisions. Here's an outline of how this evaluation is typically approached

## **4. Conclusion**

The evaluation of a heterotopic pregnancy with a ruptured tubal ectopic pregnancy requires prompt clinical attention, appropriate imaging, and laboratory workup. Once confirmed, surgical intervention is usually required to address the ruptured ectopic pregnancy, while careful management is necessary to try and preserve the intrauterine pregnancy. Close follow - up is essential to ensure that both the surgical outcome and the intrauterine pregnancy's viability are monitored.

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