# Postpartum complications

Third year- Second term

Reproductive Health Nursing Course

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# Postpartum complications

## Introduction

**The postpartum period is a time of increased physiological stress and major psychological transition. Energy depletion and fatigue of late pregnancy and labor, soft-tissue trauma from delivery, and blood loss increase the woman's vulnerability to complications.**

# Introduction

Postpartum hemorrhage and puerperal sepsis which are the most common causes of maternal morbidity and mortality during postpartum period. So, prompt diagnosis, treatment and provision of postpartum nursing management to minimize serious sequelae and reduce their effects on the clients ability to function are essential.

# Postpartum Hemorrhage (PPH)

# Definition and incidence

- It is excessive blood loss, from the genital tract after delivery of the fetus (> 500ml ) after vaginal birth and (>1000 ml) after cesarean birth
- In Egypt, postpartum hemorrhage is the attributed cause for 32% of maternal deaths.

# Types

- Primary PPH

Bleeding occurs during 3rd stage of labor or within the first 24 hours after delivery.

- Secondary PPH

Bleeding occurs after 24 hours after delivery and up to 6 weeks.

# Etiology of primary PPH

- Uterine atony (more than 90% of cases).
- Retained placental tissue
- Obstetric laceration
- Coagulation defects

# Etiology: uterine atony

- Antepartum haemorrhage.
- Severe anaemia.
- Overdistension of the uterus.
- Uterine myomas.
- Prolonged labour exhausting the uterus.
- Prolonged anaesthesia and analgesia.
- Full bladder or rectum.
- Idiopathic.

# Etiology: Retained placental

- Placenta accreta ( adherent placenta)
- Retained placental parts

# Etiology: Obstetric lacerations

- Operative delivery
- Macrosomia
- Precipitate delivery
- Delay during episiotomy.

# Diagnosis:

**General examination:**

- The general condition of the woman is corresponding to the amount of blood loss.
- In excessive blood loss, manifestations of shock appear as hypotension, rapid pulse, cold sweaty skin, pallor, restlessness, air hunger and syncope.

# Diagnosis:

**Abdominal examination:**

- In atonic postpartum haemorrhage: The uterus is larger than expected, soft and squeezing it leads to gush of clotted blood per vaginum.
- In traumatic postpartum haemorrhage: The uterus is contracted.

# Diagnosis:

**Vaginal examination:**

- In atony: Bleeding is usually started few minutes after delivery of the fetus. It is dark red in color.
- In trauma: Bleeding starts immediately after delivery of the fetus. It is bright red in colour. Lacerations can be detected by local examination.

# Prevention:

## Antenatal care

- **Complete history should be taken to identify high-risk patients who are likely to develop PPH.**
- **Hospital delivery of high-risk patients who are likely to develop PPH. e.g. polyhydramnios, multiple pregnancy, grand multipara, Antepartum haemorrhage and previous postpartum haemorrhage.**
- **Detection and correction of anemia.**
- **Routine blood grouping and typing for immediate management during emergency.**

Adequate management of labor (evacuation of bladder, rectum / avoiding excessive analgesia or anesthesia/ avoiding traumatic delivery / second stage of labor should be short / proper management of 3rd stage of labor / examine of birth canal to detect lacerations ).

Postpartum monitoring Effective management of the fourth stage.

# Management: etiology-specific

- Identify the source of bleeding
- Replacement of blood loss (Urgent cross-matched blood transfusion with the other antishock measures is given).
- Prevention of infection

# Management: uterine atony

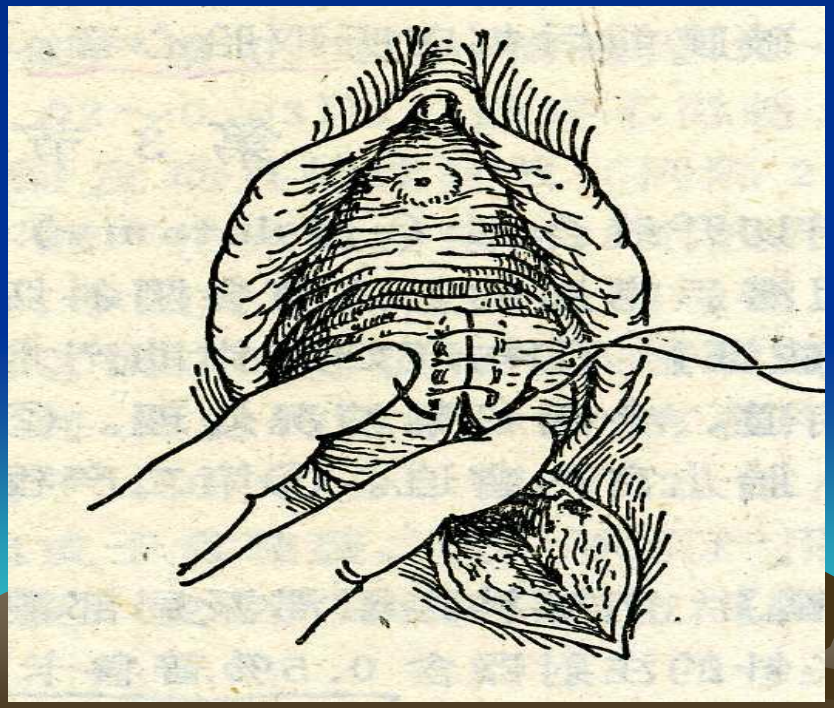
- The bladder should be emptied
- Massage of uterus
- Oxytocics and Ergometrine
- Bimanual compression (Uterus is firmly squeezed between 2 hands)
- Uterine packing (Tight intrauterine pressure on the open uterine sinuses and to stimulate uterine contractions.
- Surgery: ligation of uterine artery. hysterectomy

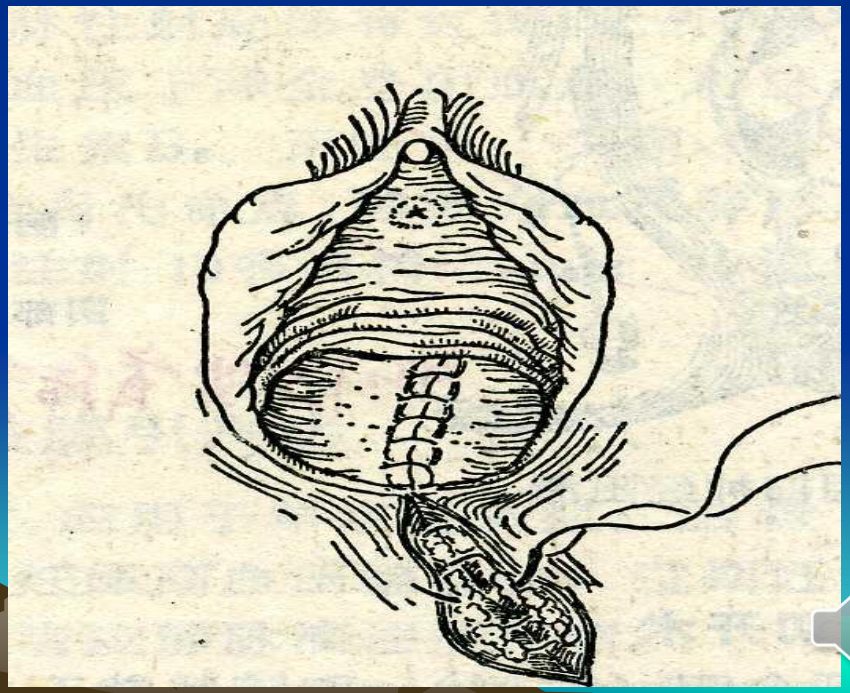
# Management: Retained placental tissue

- Manual removal of the placenta (Inspection of the placenta and membranes : any missed part should be removed manually under anaesthesia).
- Curettage
- Hysterectomy

# Management: Obstetric laceration

- Systematic inspection of the whole birth canal
- Repair of  laceration





# Management: coagulation defects

- Other etiology excluded first
- Transfusion of fresh blood
- Replacement of platelet, fibrinogen, coagulation factor.
- Treatment of Disseminated intravascular coagulation (DIC)

# Nursing Management of Postpartum Hemorrhage

- If atonic uterus:
  - Inform the obstetrician.
  - Empty the bladder.
  - Feel consistency of the uterus.
  - Massage the uterus to express clots .
  - Assess the general physical condition of the mother.
  - Monitor TPR and blood pressure.
  - Put the infant to the breast to suck or stimulate the nipple manually.
  - .

- Administer oxytocics as ordered.
- Administer prophylactic antibiotics prescribed considering the risk for infection as ordered.
- Reassure the mother: Relieve anxiety by explaining her condition and management.

- In cases of traumatic bleeding:
  - Press on the tear or laceration.
  - Prepare equipment and instruments, sterile gloves, sterile needles and catgut, sterile needle holder, forceps, sterile kidney basin, scissors, sterile gauze etc.

# Management: anti-shock

- Position (elevating women legs)
- Oxygen
- Warmth
- Replacement of fluid, plasma.
- Blood transfusion
- Antibiotics

# Secondary Postpartum Hemorrhage

Commonly occurs between 10 to 14 days after delivery.

## Etiology of Secondary PPH

-Retained placental tissue

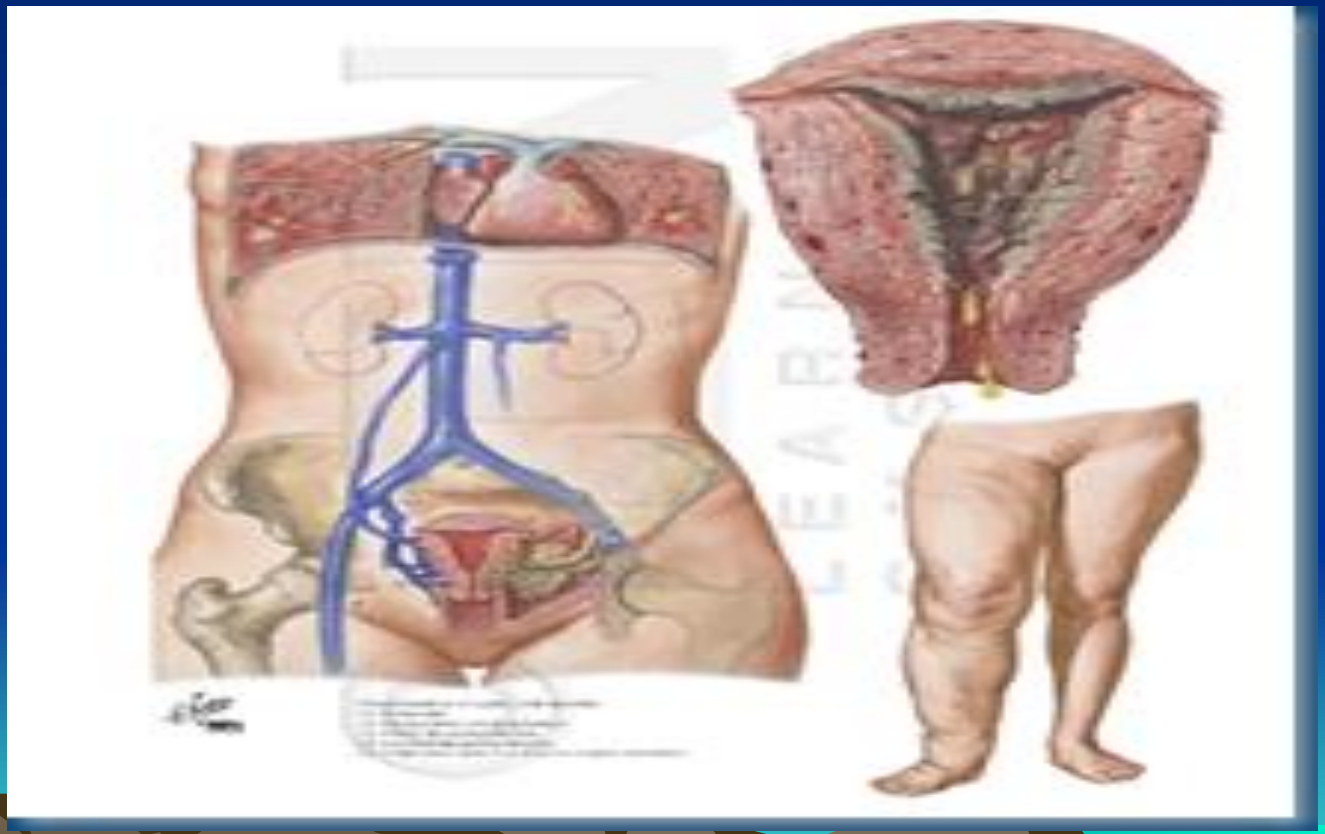
-Subinvolution of placental site

-Infection.

# Clinical Manifestations

- Sudden episodes of bleeding with bright red blood of varying amounts.
- Subinvolution of uterus.
- Sepsis.
- Anemia.

# Postpartum infections
# Puerperal sepsis



# Definition

**It is infection of the genital tract occurring at any time between the onset of labor and within 6 weeks post partum in which fever (38.5c) and one or more of the following is present:**

- **Pelvic pain.**
- **Abnormal vaginal discharge**
- **Foul odor of discharge**
- **Delay in the reduction of the size of the uterus (sub-involution)**

# *The common agents that cause infection*

- *Streptococcus.*
- *Staphylococcus .*
- *Peptococcus.*
- *Cloiform bacteria.*

*- Escherichia coli.*

# Modes of infection:

***Exogenous:***

***from infected attendants, dust, instruments ..etc.***

***Endogenous:***

***from organisms already present in the genital tract (vagina ) as anaerobic sterptococci.***

***Autogenous:***

***It may be outside the genital tract as in the gastrointestinal tract, in a distant part as tonsils where it is transmitted by blood stream.***

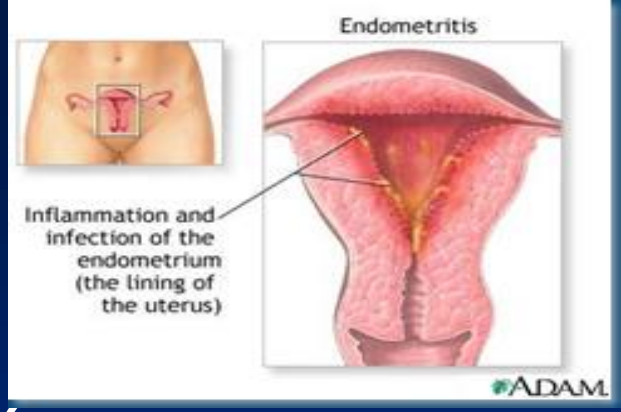
# Cardinal signs of infection

- *Pain*
- *Swelling*
- *Redness*
- *Warmth*

*Others:*

- *Tenderness*
- *Purulent discharge*

# Sites *of infection*




- Uterus (endometritis).
- Vagina , perineum , and cervix.
- C-section incision.

***These can produce inflammation of:***

- Fallopian tubes (salpingitis).
- Pelvic cavity (parametritis).
- Generalized peritonitis.
- Thrombophlebitis of the pelvis.
- Septicaemia

# *Predisposing factors for puerperal sepsis*

- **General**

  **a-Malnutrition (anemia)**
  **b-Infections (respiratory, urinary, or genital)**
  **c-Hemorrhage.**
  **d- Diabetes (low resistance)**

- **Local:**

  **a- Premature rupture of the membrane.**
  **b- Prolonged labor.**
  **c- Instrumental delivery ( Forceps)**
  **d- Presence of perineal tears/ lacerations.**

- **Unclean practices during delivery (manual or operative intervention)**

  ***a- Frequent vaginal examinations***
  **b-** ***Invasive fetal monitoring***

# Maternal complication:-

- Septicemia.
- Pulmonary embolization
- Menstrual problems
- Chronic pelvic pain
- Secondary infertility
- Death.

# Prevention of puerperal sepsis

## Antepartum:

1- Correction of predisposing factors

Malnutrition (anemia) infections (respiratory, urinary, or genital) .

2- Treatment of any septic focus located in teeth, gums, tonsils, middle ear or skin.

3- Health education on personal hygiene

4- Avoid contact with persons having communicable diseases.

# Intrapartum:

- Follow strict asepsis during labor.
- Minimize vaginal examinations.
- Preserve membranes as long as possible.
- Repair lacerations of genital tract promptly.
- Replace excess blood loss to improve general body resistance.
- Prophylactic antibiotics in premature rupture of membranes, prolonged labor and operative delivery.

# Postpartum:

- Follow strict asepsis while caring for the perineal or abdominal wound.
- Frequent changing of sanitary pads.
- Swab vulva and perineum using antiseptic solution after each voiding or defecation.
- Maintain proper environmental sanitation.
- Avoid too many visitors.
- Isolate women with infection.

# Nursing care of post partum infection

- Assess predisposing factors for infection and identify this risk factors by review record of antepartum and intrapartum record.
- Assess the general condition of the woman, and hemodynamic stability (vital signs).
- Inspection of the external genitalia and perineum to detect the amount, smell and color of the discharges.
- Assess the size of the uterus as well as the presence of any tenderness.

# Nursing care of post partum infection:

- Encourage woman to increase fluid and calories intake.
- Nurse must maintain rest and comfortable to conserve energy and enhance immunology function, promote healing.
- Place woman in Fowler's or semisitting position (for promotion of drainage).
- Administrate antibiotics as order .
- Nurse must inform woman about side effects of medications.
- Provide reassurance and support.

# Thank you