Normal and Abnormal Post Partum

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Chapter outlines

1. The Normal Postpartum
2. Definition
3. Physiological changes during PPP
4. Breast and Physiology of Lactation
5. Psychological Changes during Postpartum
6. Nursing Management of the Postpartum Period
7. Minor Discomforts during the Postpartum Period
8. Postpartum Visits
9. Abnormal Postpartum Complications
10. Postpartum Hemorrhage
11. Nursing Management of Postpartum Hemorrhage
12. Secondary Postpartum Hemorrhage
13. Nursing Management of Secondary Postpartum Hemorrhage
14. Puerperal Sepsis
15. Nursing Management of Puerperal Sepsis
The Normal Postpartum

Definition

• It is the period following labor during which the maternal body in general, and the genital organs, in particular, return to the pre-pregnant condition.

• Duration of the postpartum period is 40 days or 6-8 weeks (maximum involution). Another 4 to 6 weeks is needed for complete involution.

• The puerperal period is much shorter after abortion. The first ten days are called the early postpartum, and the days after are called the late postpartum.
Physiological Changes during Postpartum

General Physiological Changes

• Immediately following labor the general condition of the mother is one of physical fatigue.
Vital Signs

Temperature:

• The temperature is slightly elevated: 0.5 degrees for the first 24 hours and up to 38 degrees is known. This rise in temperature is due to the absorption of waste products of muscular contractions of labor.

• Transient rise in temperature later on is due to:
  – Milk engorgement (by the 4th day postpartum).
  – Constipation.
  – Nervous excitation.
  – Infection.
The pulse:

• The pulse is full and slow (about 60-70 B/mm) and is known as physiological bradycardia (for 24-48 hrs after labor). It is due to:
  – The rest period after labor.
  – The increase in the circulating blood volume on account of the elimination of the placental pool.

• The pulse should remain below 100 B/mm if all is going well. A rapid pulse may be brought on by pain, visitors, excitement, exhaustion, the nursing infant, hemorrhage or infection.
Respiration:

• This is in the usual relation with pulse and temperature. Because of a reduction in the size of the uterus and relaxation of the abdominal wall respiration is more abdominal in character. Deviation from the normal may suggest pneumonia or embolism.
Blood Pressure

• No change is counted, but if hypotension is present, postpartum hemorrhage may be suspected. If hypertension is present (over 140/90 mm Hg) postpartum toxemia may be suspected.
Skin

- Excessive sweating (diaphoresis), particularly in patients who were subjected to edema in late pregnancy, in order to get rid of excess fluids that were retained in the tissues. This gradually ceases within the 1st week and the skin reacts as usual.
- Skin pigmentation gradually disappears.
Kidneys and Urinary Output

• There is usually physiological diuresis (polyuria).
• Painful, difficult micturition due to tears, lacerations or episiotomy may result in reflex retention of urine.
• Traces of albumin and peptone may be present as a result of muscle involution.
Lactosuria is common with milk engorgement on the 4th day at the start of lactation. The parturient may experience some retention of urine in the first few days after labor due to:

- Laxity of the abdominal muscles.
- Inability to micturate in the recumbent position.
- Reflex inhibition due to stitched perineum or bruised urethra.
- Atony of the bladder.
- Compression of the urethra by edema or hematoma.
Bowel Function and Intestinal Elimination

- Thirst is present due to the marked fluid loss through sweat and urine.
- Tendency to atony of the gastrointestinal tract, with flatulence and constipation.
- Constipation may be present as a result of:
  - Intestinal atony.
  - Anorexia after labor.
  - Loss of body fluids.
  - Laxity of the abdominal wall.
  - Hemorrhoids.
  - Reflex inhibition.
  - Enema in labor.
Blood Picture

- With proper antenatal care, the amount of blood loss during the 3rd stage of labor does not cause anemia.
- Blood volume decreases, Hb% also diminishes, but not proportionately, hydremia of pregnancy disappears.
- A moderate increase in the leucocytic count, fibrinogen and sedimentation rate occurs during the first postpartum period, then gradually gets back to normal values.
- In the absence of complications and with proper diet and hygiene, RBC count and content, and the blood constituents, usually return to the non-pregnant levels in 4-6 weeks.
Body Weight

Loss of weight is observed during the first 10 days particularly in the non-lactating mothers. There is about a 4-5 kg. loss of body weight (sometimes 8 kg) due to evacuation of uterine contents and diuresis.
After-pains

- It is a spasmodic colicky pain in the lower abdomen (like menstrual pain that come and go) during the early postpartum days due to the vigorous contractions of the uterus.

- It is more common and more severe in multiparas (due to weak muscle tone), multiple pregnancy, polyhydramininius, large-sized infant in diabetic mothers (increase intra-abdominal pressure).
• After-pains can be precipitated by the presence of blood clots, a piece of membrane, or placental tissue.

• After-pains increase during breastfeeding the infant because the infant’s sucking stimulates further milk production, which in turn stimulates the posterior pituitary gland to secrete oxytocin that results in more uterine contractions, causing increase in after-pains.
Return of Menstruation

• Non-lactating mothers begin to menstruate again in 6-8 weeks. It may be delayed for a longer period without any abnormal condition being present.

• In lactating mothers, menstruation usually reappears not earlier than 4-5 months, and sometimes as late as 24 months.

• The first period is generally profuse and prolonged.

• It should be mentioned that ovulation can commence in the absence of menstruation, and another pregnancy can occur.
Specific Anatomical Changes

Uterus:

- Involution of the uterus is the return of the uterus to its pre-pregnant condition.
- Size of the uterus: Immediately after labor the level of fundal height should be at or below the level of the umbilicus. The uterus should be firm, well contracted and in the midline. It decreases in size daily, and the level of the fundus descends gradually at a rate of about 1 finger breadth every day, i.e., by the end of 1st week the fundus is midway between umbilicus and symphysis pubis. By the 2nd week the fundus is just behind the symphysis pubis, and thereafter, it becomes a pelvic organ that can no longer be felt abdominally.
Weight

- The weight of the uterus also decreases gradually throughout the postpartum. By the end of the Postpartum it weighs 50 gm instead of 1000 gm during pregnancy. The involution of the uterus is accomplished through two mechanisms or processes.
Autolysis (Self Digestion)

• The protein material of the muscle fibers is broken down by certain enzymes and absorbed in the blood stream, and excreted by the kidneys in the urine.
Ischemia (Decreased Blood Supply)

- Contraction and retraction of the uterine muscle fibers compresses the blood vessels and reduces the blood supply to the uterus. The old blood vessels become obliterated by thrombosis, and then undergo degenerative changes. The remains of blood vessels can be detected as elastic fibers in the multiparous uterus.
In the Endometrium

• Separation of the placenta and membranes occur in the deeper portion of the spongy layer of the decidua. All but the basal layer is shed off in the lochia. A new endometrium is formed in the next weeks except at the placental site, which is a raised area of thrombotic sinuses. This area is finally healed and covered by a new endometrium by the end of 7th week approximately (40 days).

• If the process of involution is slow, or delayed, the condition is known as “subinvolution”, while rapid involution of the uterus is called “hyperinvolution”.
• Lochia:
  • It is the uterine discharge coming through the vagina during the first 3-4 weeks of the postpartum. It is alkaline in reaction, the amount is rather more than the menstrual flow, with fleshy odor. It contains blood, fibrin, leucocytes, dead decidual tissue, vaginal epithelial cells, peptone, cholesterol, and numerous nonpathogenic bacteria.
There are three types:

- **Lochia Rubra**: the discharge is red in color due to the presence of a fair amount of blood, shreds of the deciduas, large amount of chorion, amniotic fluid, lanugo hair, vernix caseosa, and meconium may also be present. This discharge lasts from the 1st postpartum day, to the 4th day (and sometimes to 7th day).

- **Lochia serosa**: a pink yellow discharge containing less blood and more serum, and extends for another 3 to 4 days.

- **Lochia alba**: a creamy or white colored discharge containing leucocytes and mucus. It remains for the 10th day postpartum.
Clinical significance of abnormal lochia:

- Fetid lochia denotes the presence of infection and/or stagnation.
- Sudden suppression may be due to severe infection.
- Prolongation or recurrence of lochia rubra may suggest retained parts of the placenta, membranes, RVF, subinvolution, tumors, as fibromyom or chorion epithelioma.
Genital Organs

Vagina:

• The vagina diminishes in size, but not as the pre gravid state. Rugea reappears in the third week. These are small skin folds in the lower part of the vaginal wall, dark red in color.

• The anterior and posterior vaginal walls may be sagging immediately after labor and for a few days after. If early ambulation, accompanied by heavy household duties, is allowed, cystocele, rectocele or uterine prolapse, may develop. Rest in bed, elevation and tightening exercises prevent these lesions.
Vulva:

• Edema, minute or frank lacerations, may be seen immediately after labor. Edema disappears gradually in a few days while lacerations, if not properly mended by sutures, may lead to the formation of a postpartum ulcer which is a septic very tender ulcer with a grayish necrotic film covering its surface.

• The vulva tends to gap for some time after delivery.
Ligaments and Other Structures

• The ligaments that support the uterus, ovaries and the tubes, which have also undergone great tension and stretching, are now relaxed and will take a considerable time to return to their almost normal size and position.

• Other structures such as the peritoneum, pelvic floor muscles and parametrium involute near to their original state, but some relaxation may persist, especially in the pelvic floor muscles and parametrium.
The Abdominal Wall

- The muscles that were over stretched during pregnancy, and strained during labor, are slow to regain their normal tone and elasticity. The recti muscles may separate widely so that the uterus may be felt between them. Sometimes other viscera may also protrude when the mother sits or stands; this condition is known as diastasis recti. Diastasis recti is an abnormal condition during postpartum in which there is laxity and separation of the recti muscles.

- Causes and predisposing factors. Overdistention of the uterus, as in multiple pregnancies, polyhydraminos and large babies, or by disproportion between the infant and the pelvis (the fetus fails to descend, and a pendulous abdomen develops).
Breasts

Anatomy:

• The breasts are compound secreting glands, composed of approximately 15-20 lobes arranged radially. Each lobe is divided into lobules forming cavities called alveoli lined with secretory cells that produce milk. Five small lactiferous ducts, carrying milk from alveoli of each lobe unite to form 20 larger ducts. They widen before opening on the surface of the nipple to form ampullae or lactiferous sinuses that act as temporary reservoirs for milk.

• The nipple is composed of erectile tissue containing plain muscle fibers that have a sphincter-like action in controlling the flow of milk. The milk goes out of the nipple through 8-15 small orifices.

• The female breasts, also known as the mammary glands, are accessory organs of reproduction.
Situation

• One breast is situated on each side of the sternum and extends between the second and sixth rib.

Types of nipples:
• Normal or protruded.
• Bifid or divided into two parts.
• Flat at the level of the skin.
• Depressed below the level of the skin.
Physiology of Lactation

- During pregnancy estrogen and progesterone secreted by the placenta prepare the breasts for lactation. The estrogen inhibits milk production until the end of pregnancy. In the 3rd trimester of pregnancy colostrum is present and remains for the first 3 days postpartum.

- By the 3rd stage of labor (delivery of the placenta), the hormonal production is reduced, and during the next 48 hrs, the blood level of estrogen and progesterone fall. This stimulates the anterior pituitary gland to produce the lactogenic hormone (prolactin hormone) which acts on the acini cells in the breast, and milk is formed. The milk is pushed along the lactiferous ducts and some is stored in the ampullae which lie just under the areola. When the infant sucks, he takes the nipple and the areola into his mouth, and partly by a vacuum which is created mostly by a chewing action of his jaws, milk is pushed into his mouth and he swallows.
• As the ampulla and lower ducts are emptied, milk is pushed from the alveoli by contraction of the myoepithelial cells. So, the act of sucking by the infant is the stimulus that provokes lactation.

• This effects a neuro-hormonal reflex mechanism which activates the anterior pituitary lobe to produce lactotropin, and the posterior pituitary lobe to produce oxytocin which reaches the breast through the blood stream, leading to contraction of myoepithelial cells, and the expulsion of milk.

• Oxytocin also stimulates uterine contractions causing after-pains and lochial discharge during breastfeeding.
• With the onset of milk the breasts become larger firmer, heavier, and full of milk that can be expressed on pressure, or may escape spontaneously. This procedure is associated with a considerable local throbbing pain extending the axillae.

• Characteristics of breast milk. It is suited to the infant’s needs, easily digestible, germ-free, fresh, warm and contains antibodies, vitamins, calcium, lactose, casein protein, fat, mineral salt and water. It is also readily available, and costs little.
Psychological Changes during Postpartum

Phases of the Maternal Role:

- Emotional changes in the mother during the postpartum period (restorative process) as described by Reva Rubin pass through three phases. They are:
  - Taking-in phase.
  - Taking-hold phase.
  - Letting-go phase.
Taking-in Phase (Turning in)

- It takes 2-3 days, during which time the mother’s first concern is with her own needs (sleep and food). The woman reacts passively, mostly dependent on others to meet her needs. She initiates little activity on her own. She is quite talkative during this phase about every detail of her labor and delivery experience.
Taking-Hold Phase (Taking Responsibility as a Mother)

It starts the 3rd day postpartum. The emphasis is placed on the present. She becomes impatient and is driven to organize herself and her life. She progresses from the passive individual to the one who is in command of the situation. This phase lasts about 10 days. Once the mother has taken control of her physical being and accepted her role as a mother, she is able to extend her energies to her mate and other children.
Letting-go Phase

• As her mothering functions become more established the mother enters the letting-go phase. This generally occurs when the mother returns home. In this phase there are two separations that the mother must accomplish. One is to realize and accept physical separation from the infant. The other is to relinquish her former role as a childless person and accept the enormous implications and responsibilities of her new situation. She must adjust her life to the relative dependency and helplessness of her child.
Postpartum Blues (Depression)

Definition

• Rubin defined postpartum depression as the gap between the ideal and reality: the new mother’s self-expectation may exceed her capabilities, resulting in cyclic feelings of depression.

• During Postpartum, and for no apparent reason that the mother can think of, she may experience a let-down feeling accompanied by irritability and tears. Occasionally her appetite and sleep patterns are disturbed. These are the usual manifestations of the postpartum or “infant” blues.
• This depression is usually temporary and may occur in the hospital. It is thought to be related, in part, to hormonal changes, and in part, to the ego adjustment that accompanies role transition. Discomfort, fatigue and exhaustion certainly contribute to this condition. Crying often relieves the tension, but if the parents are not knowledgeable about the condition the mother may feel rather guilty for being depressed. Understanding and anticipatory guidance will help the parent be aware that these feelings are a normal accompaniment to this role transition.
Predisposing Factors

- The first pregnancy.
- A pregnancy in late child bearing years.
- Ambivalence toward the woman’s own mother.
- Social isolation.
- Long or hard labor.
- Anxiety regarding finances.
- Marital disharmony.
- Crisis in the extended family.
The Emotional Needs of the Woman during Postpartum

• Recognition of the effort made during labor: approval of behavior during labor as well as in the immediate postpartum period.

• Support and encouragement in her care for the infant.
• Attention from family members particularly from the husband: this is very significant as most of the attention in the immediate postpartum period is directed suddenly toward the newborn.

• Someone to listen and help them solve their dependency-independency conflict.

• Physical needs of comfort, nourishment and hygiene should be properly fulfilled.
Nursing Management of the Postpartum Period

Introduction

• Nursing care during the postpartum provides the means by which the parturient can restore her physical and emotional health, as well as gain experience in caring for her new born infant.
Components of Care during the Postpartum Period

Care of the mother:

• Immediate care.
• Subsequent daily care.
• Care of the newborn infant.
Objectives of Care during the Postpartum Period.

Immediate care of the mother:

- Secure physical and mental rest, restore normal good muscle tone and maintain normal body functions.
- Provide proper adequate nutrition.
- Guard against infection.
- Teach the mother how to care for herself and the infant.
- Foster and maintain family ties and adjust the parents to their new role.
Nursing Assessment

• The first hour, after placental separation and birth, is under the management of the labor ward nurse:
• Observation of bleeding signs and symptoms by:
• Palpating the fundus of the uterus through the abdominal wall. Normally,
• Inspecting the perineum and perineal pad for obvious signs of bleeding.

• Taking and recording vital signs every 15 minutes for the first hour after labor.

• Observation of legs for signs and symptoms of deep vein thrombosis (DVT): pain, warmth, tenderness, swollen reddened vein that feels hard or solid and positive Homan’s sign.
Nursing Diagnosis Based on Assessment

Potential for:

- Postpartum bleeding.
- Deep vein thrombosis.
- Infection.
Nursing Plan and Implementation

• Palpate the uterus: if it remains firm, well contracted and does not increase in size, it is neither necessary nor desirable to stimulate it.

  – If it becomes soft and boggy because of relaxation, the fundus should be massaged immediately until it becomes contracted again.

  – If the uterus is atonic, blood which collects in the cavity should be expressed with firm, but gentle, force in the direction of the outlet. This is done only after the fundus has been first massaged because it may result in inversion of the uterus and lead to serious complications.
• Administer oxytocics (e.g. ergometrine 5 mg. TM) as ordered to control bleeding and to promote involution.
• Continue checking of vital signs.
• Encourage urination because full bladder impedes involution and may cause atony of the uterus leading to excessive bleeding.
• Check lochial discharge for color, amount, consistency and presence of clots.
• Perineal care is performed under aseptic technique to prevent infection.
• Offer food to mother if the policy permits, and after vital signs are stable.
• Breast care may be employed.
• General hygiene: shower may be permissible to clean, comfort and refresh the mother (after vital signs are stable) according to the hospital policy.
• Encourage early initiation of breastfeeding to stimulate involution, lactation and to enhance emotional bonding.
• Correct dehydration promptly by offering fluid intake (orally), or starting IV fluid as ordered.
• Start leg exercises and early ambulation, especially following operative delivery.
• Administer prophylactic anticoagulant therapy as ordered.
Nursing Care Plan and Implementation

• After admission to the postnatal ward, subsequent daily care is implemented as follows:
General Aspects of Care

• Check vital **signs 2 times daily (morning and evening)**; observe for symptoms of hypovolemic shock and hemorrhage (fainting).

• A temperature of 38°C, or above, for two consecutive days after the first 24 hrs. is considered an early sign of puerperal infection.

• Bradycardia is a normal physiological phenomenon.
• Palpate the uterus to assess firmness, level of fundus, and rate of involution of the uterus.

• Administer oxytocic medication as ordered to promote involution.

• Check lochia for color, amount, odor, consistency and presence of blood clots.

• Observe perineum and suture line - if present - for redness, ecchymosis, edema or gapping. Check healing and cleanliness.
• Provide for sufficient periods of rest and sleep in order to maintain physical and mental health, as well as to promote lactation (8 hr. night-time sleep and 2 hr. afternoon-nap are needed).

• Proper positioning. During the first 8 hrs after labor, the mother is allowed to sleep in any comfortable position. After that, prone position or either lateral positions should be encouraged in order to facilitate involution, and to help drainage of lochia. Sitting position is also recommended since it promotes contraction of the abdominal muscles, aids pelvic circulation, and helps drainage of lochia. Knee-chest osition is indicated in certain conditions because it prevents RVF of the uterus and hastens its involution.
• On the other hand, both supine and semi-sitting positions should be avoided.

• Prevent infection: complete aseptic and antiseptic precautions should be followed during the early postpartum period to prevent infection.
• Promote bladder and bowel function:

  – Bladder; marked diuresis is expected for 2-3 days following delivery: voiding should be encouraged within 6-8 hrs after labor. If no urine is passed after 12 hrs., initiate simple nursing measure to induce voiding. If failed, catheterization, under complete aseptic technique is performed.

  – Bowel: there may be no bowel action for a couple of days because the bowel has probably been emptied during labor. Glycerin suppository may be used to relieve constipation.
• Provide diet high in proteins and calories to restore tissues. A daily requirement of 3000-3500 cal/day is needed in the form of a well balanced diet rich in class proteins, calcium, iron, vitamin A, thiamine, riboflavin, and ascorbic acid. Liberal amounts of fluids are required (e.g. milk, juice ... etc.). Roughage and green vegetables are provided to prevent constipation.

• Encourage early ambulation to prevent blood stasis. However heavy activities are avoided to prevent complications.
• Encourage postpartum exercises (appendix) particularly Kegel’s exercises. To strengthen pubococcygeal muscles.
• Provide treatment for after pains as ordered.
• Monitor laboratory reports for Hb, HCT, and WBC.
• Observe for postpartum blues, which may be caused by a drop in hormonal levels on the 4th or 5th day.
• Meet the mother’s needs to enable her to meet the infant’s needs.
• Assist the mother with self-care and care of the infant as needed.
• If Rh negative mother, assess need for administration of RhO GAM.
• Give rubella vaccine if indicated.
• Discuss resumption of sexual relations. Include information about when to expect menstruation.
• Discuss most suitable family planning methods for spacing of pregnancy. (e.g., immediate post-delivery contraceptives).
• Stress the importance of postpartum examination, visits and follow up to assess involution, general health and wellbeing of the mother.
• Evaluate client’s response and revise plan as necessary.
• Discuss community resources that provide maternal services.
• Regular and frequent examination for early detection of complications such as engorged breast, cracked nipples, mastitis and breast abscess.
Care of the perineum:

• Inspect and observe for presence of episiotomy, lacerations, edema, pain or ulceration.
• Keep the area clean and dry by employing perineal care.
• Teach the mother principals of self-care.
• Care of the newborn infant:

• Nursing assessment:
  – Observing the general condition.
  – Checking the cord.
  – Checking the infant’s physical needs: cleanliness, feeding, warmth, sleep, protection from unsuitable environment.
  – Checking psychological needs: bonding, attachment.
- Cord abnormalities: bleeding, discharge, hernia.
- Heat loss, hypothermia.
- Hazardous environmental factors.
- Psychological disturbance due to lack of bonding and attachment.
• **Nursing plan and implementation:**

  - Carry out partial or complete bath to ensure cleanliness and comfort.
  - Use proper clothing to keep the infant warm.
  - Perform cord dressing.
  - Encourage early, on demand and exclusive breastfeeding.
  - Ensure adequate hours of sleep.
  - Protect from environmental hazards.
  - Discuss infant care with mother: cleanliness, handling, clothing, cord care, feeding, bonding, diapering, circumcision of male infant, immunization, registration, and community resources.
  - Encourage early skin to skin contact, bonding and attachment.
Minor Discomforts during the Postpartum Period

Minor Complaints

- They are minor complaints felt by the parturient during postpartum period. Simple nursing measures (interventions) are needed to alleviate these complaints.
After-pains

- It is a spasmodic colicky pain in the lower abdomen during the early postpartum days due to vigorous contractions of the uterus. It is more common and more severe in multiparas due to weak muscle tone. Conditions with increased intra-abdominal pressure e.g. polyhydraminos, multiple pregnancy, large size infant.

- Predisposing factors:
  - Presence of blood clots, piece of membranes or placental tissue.
  - Breastfeeding increases after-pain.
• **Nursing management:**
  
  – Simple uterine Massage.
  – Reassurance and simple explanation of the cause. Proper positioning (prone, sitting).
  – Offering warm drinks.
  – Mild sedatives on doctor’s orders (before feeding).
  – Avoid full bladder.
  – Encourage abdominal muscle exercises and pelvic floor muscle exercises.
Urinary Retention

• It is the inability to excrete urine, i.e. urine is accumulated within the urinary bladder. A common complaint during the first few days after labor.

• Causes:
  – Laxity of the abdominal muscles.
  – Inability to micturate in the recumbent position.
  – Reflex inhibition due to stitched perineum or bruised urethra.
  – Atony of the bladder.
  – Compression of the urethra by edema or haematoma.
Treatment:

• Urine should be passed approximately 8-12 hrs. after delivery. If not, the following measures should be attempted:
  – Perineal care with warm water.
  – Privacy and reassurance.
  – Warm bedpan.
  – Listening to the sound of running water.
  – Hot-water bottle over the symphysis pubis.

• If these measures fail, catheterization should be performed using complete aseptic technique.
Constipation

• An abnormal infrequent and difficult evacuation of feces may occur during the first few days postpartum.
• Nursing management: health teaching should consider the following:
  – Diet rich in roughage.
  – Increase fluid intake.
  – Milk before bedtime.
  – Exercises.
• After 72 hrs a glycerin suppository, or mild laxative, may be administered as ordered.
Engorged Breast

- It is an accumulation of increased amounts of blood and other body fluids as well as milk in the breasts. This condition occurs frequently about the 3rd day postpartum, especially in primiparas. It is due to lymphatic and venous engorgement, and is relieved when milk comes out.
Causes:
• Inadequate and/or infrequent breastfeeding.
• Inhibited milk ejection reflex.

Signs and symptoms:
• Breasts are firm, heavy (due to blocked ducts), swollen, tender and hot (37.80C).
• Pain may be present leading to irritability and insomnia. The mother may refuse to nurse the infant.
Nursing management:

- Apply moist warm packs to the involved breast 2-3 minutes before each feeding.

- Massage and manual expression of milk to relieve areolar engorgement before feeding. This facilitates attachment.
• Cold application after feeding.

• A well-fitting bra should be used to provide support and comfort.

• Mild analgesics may be ordered. Syntocinon inhalation may be prescribed. In severe cases, administration of 2 doses of diuretic (as Lasix 40 mg) is effective.
Cracked Nipple

• Fissured nipple occurs in about half of the nursing mothers at one time or another. Nipple tenderness and soreness are usually the result of trauma and irritation.
Causes

• Improper antenatal care.
• Improper technique of breastfeeding.
• Unnecessary prolonged lactation.
• Flat or large size nipple ~ excoriation.
• The use of irritating substances e.g. soaps, lotions.
• Conditions as candidiasis, and contact dermatitis.
• Engorgement of the breast.
• Blond and redheaded women usually have delicate skin that may be predisposed to cracking.
Signs and symptoms:

• Irritation of the nipple in the form of minute blisters, or petechial spots.
• Persistent pain and tenderness.
• Bleeding.
• Inflammation signs.
Nursing management:

- Proper technique of breastfeeding should be followed.
- Apply moist heat and massage before feeding (3-5 mm).
- Frequent, short feedings.
- Air/sun exposure.
- Avoid engorged breast.
- Avoid irritating materials.
- Use supportive bra.
- Mild analgesic and panthenol ointment may be used.
- Treatment of candidiasis and dermatitis.
Perineal Discomfort

- It usually occurs due to presence of tears, lacerations, episiotomy and edema.
- Nursing management:
  - Frequent perineal care under aseptic technique. (the area should be kept clean and dry).
  - Soaks of magnesium sulphate compresses in case of edema.
  - Expose to dry heat (electric lamp) will help the healing process.
• Health education that includes:
  – Perineal self care.
  – Position (lateral with a pillow between thighs).
  – Diet: rich in protein.
  – Sources of strain such as coughing, constipation and carrying heavy objects should be avoided.
  – Encourage pelvic floor muscle exercises.
  – Avoid infection.
  – The use of cotton underwear.
Postpartum Blues (Depression)

• Reva Rubin defined postpartum blues as “the gap between the ideal and reality: the new mother’s expectations may exceed her capabilities, resulting in cyclic feelings of depression”. This condition is usually temporary and may occur in the hospital. The condition is partly due to hormonal changes, and partly due to the ego adjustment that accompanies role transition.
Manifestations

• Disturbed appetite and sleeping patterns. Discomfort, fatigue and exhaustion.
• Episodes of crying for no apparent cause.
• The mother may experience a let down feeling accompanied by irritability and tears which often relieves the tension.
• Guilt feeling at being depressed.
Predisposing factors

- The first pregnancy or pregnancy in late childbearing age.
- Social isolation.
- Ambivalence toward the woman’s own mother.
- Prolonged, hard labor.
- Anxiety regarding finances. Marital disharmony.
- Crisis in the family.
Nursing management

- Reassurance, understanding, and anticipatory guidance will help the parents become aware that these feelings are a normal accompaniment to this role transition.
Postpartum Visits
The First Visit

• This visit is carried out 3-4 weeks after labor in order to assess the degree of involution of the body in general, and of the genital tract in particular. General and local examinations are performed. The client’s condition is evaluated through various medical and nursing activities that include:

  • Measuring and recording of blood pressure.
  • Estimation of the hemoglobin percentage, and aggressive treatment of anemia, if present.
• Urine analysis for sugar and albumen.

• Thorough examination of the breasts and nipples for early detection and treatment of abnormalities.

• Examination of abdominal muscles, perineum, perineal wounds and nature of lochia to assess the degree of involution of these parts, and to exclude the presence of infection.

• Careful and thorough examination of: size of the uterus, its position, adnexal masses, tenderness, the condition of the cervix (such as lacerations or erosions) as well as the condition of the pelvic floor. Management of any lesion should be readily started.
The Second Visit

• This visit is done at the end of the 6 postpartum week. It is carried out along the same lines as the first postnatal visit with the institution of more active treatment for certain lesions:
• If retroversion flexion (RVF) is still present a pessary must be inserted.
• Cervical erosion may call for cauterization.
• Subinvolution calls for more energetic treatment.
• Health teaching items at this time include advice in relation to:
• Sexual intercourse, which should be prohibited during the first six postpartum weeks, and allowed after that, provided that the woman is in good health, with a perfectly healed genital tract.
• Spacing of pregnancies and counseling about the appropriate contraceptive method, which should be prescribed and may be started at once.
• If prolapse of the genital tract is present, it should be treated by pelvic floor muscle exercises and/or the insertion of a ring pessary. The patient should be advised to abstain from bearing down. Chronic cough and constipation should be treated for this purpose. However, operative treatment is not considered before the lapse of six months when total involution of the genital tract is established.
• Health education to puerperal women at this time should also include instructions related to the possibility of encountering menstrual irregularities during the following months. These irregularities range from complete amenorrhea to oligo-menorrhea, hypomenorrhoea or polymenorrhea. Bleeding is expected at the end of the 6th puerperal week in the majority of patients. In non-lactating mothers, however, menstruation usually appears after 6-8 weeks. On the other hand, lactating women may have great variations in this respect: about 1/3 of them will start menstruation 3 months postpartum, and by the 6 month more than half of them will menstruate.
The Third Visit

• This is performed at the end of 3 months (12 weeks) by which time complete involution of the genital tract has occurred.
• General and local examinations are carried out, and any discovered lesion should be dealt with:
• Cervical erosions must be cauterized.
• Persistent RVF and/or prolapse should be managed properly.

• If lactational amenorrhea is present, the client should be instructed that this is not a bar against another pregnancy, and suitable contraceptive measures should be instituted.
Abnormal 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. Most women recover from the stresses of pregnancy and childbirth without significant complications. However, postpartum complications can occur.

• The potential seriousness of many postpartum complications cannot be underestimated. Among these complications are 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.
Introduction

• In Egypt, postpartum hemorrhage is the attributed cause for 32% of all maternal deaths, and 46% of all direct maternal death. Ninety nine percent of all postpartum hemorrhage deaths were avoidable.
Postpartum hemorrhage (PPH) is excessive blood loss at delivery affecting the general condition of the mother, a rising pulse rate, falling blood pressure and poor peripheral perfusion. Definition based on the amount of hemorrhage (blood loss of 500 ml or more from or within the reproductive tract after birth within 24 hours of delivery) is notoriously impractical and unreliable.
Types

- Primary postpartum hemorrhage occurs during the first 24 hrs after delivery.
- Secondary postpartum hemorrhage. Hemorrhage also may be delayed, occurring more than 24 hours after delivery. It can occur as long as 6 weeks after delivery.
Primary Postpartum Hemorrhage

Major Causes

Atonic Uterus:

- Atonic uterus is the commonest cause of postpartum hemorrhage with separation of the placenta, the uterine sinuses that are torn cannot be compressed effectively.
Factors affecting efficient uterine contraction and retraction.

- Placental
  - Incomplete separation of placenta.
  - Retained cotyledon, placental fragment or membranes.
  - Placenta previa.
- Prolonged labor
- Multiple pregnancy or polyhydramnios.
- General anesthetics.
- A full bladder.
- Manipulation of the uterus during third stage.
Traumatic:
- Hemorrhage occurs due to trauma of the uterus, cervix, vagina following spontaneous or operative delivery.
- Delay during episiotomy, laceration.

Mixed:
- Combination of atonic and traumatic causes.

Blood Coagulation Disorders:
- Acquired or congenital blood coagulation disorders are the factors sometimes causing postpartum hemorrhage.
Prevention

Antepartum

- Complete history should be taken to identify high-risk patients who are likely to develop PPH.
- Improvement of health status specially to raise the hemoglobin level.
- Hospital delivery of high-risk patients who are likely to develop PPH. e.g. polyhydramnios, multiple pregnancy, grand multipara, APH and severe anemia.
- Routine blood grouping and typing for immediate management during emergency.
Intrapartum

- Careful administration of sedatives and analgesic drugs.
- Avoid hasty delivery of the infant.
- Prophylactic administration of oxytocic drugs with delivery of anterior shoulder or at the end of third stage.
- Avoid massaging the uterus before separation of the placenta.
- Examine the placenta and membranes for completeness.
- Examine the utero-vaginal canal for trauma and prompt repair if present.
- Effective management of the fourth stage.
Control Bleeding by Using the Following Steps

- Exploration of uterus under general anesthetic.
- Bimanual compression (Uterus is firmly squeezed between 2 hands)
- Tight intrauterine packing to exert direct hemostatic pressure on the open uterine sinuses and to stimulate uterine contractions.
- If all the above measures fail to achieve hemostasis a hysterectomy is performed.
- In traumatic PPH, speculum examination to find out trauma and hemostasis is achieved by appropriate sutures.
Observation of the Mother

- Record pulse and BP every 15 minutes.
- Palpate uterus every 15 minutes to ensure that it is well contracted.
- Cheek temperature 4 hourly.
- Examine lochia for amount and consistency
- Examine IV infusion.
- Hourly urine output.
- Intake and output chart.
- Relieve anxiety by explaining her condition and management.
- Administer prophylactic antibiotics prescribed considering the risk for infection.
Nursing Management of Postpartum Hemorrhage

Assessment

• Identify Risk Factors in the Patient’s History

Assess:
• Vital signs and general condition.
• State of uterus.
• Nature of bleeding.
• Signs and symptoms of blood loss.
• Amount of blood loss.
• Compare laboratory reports.
Nursing Interventions

• If atonic uterus:
  – Inform the obstetrician. Feel consistency of the uterus.
  – Massage the uterus to express clots and make it hard as follows. The fundus is first gently felt with the finger-tips to assess its consistency. If it is soft and relaxed the fundus is massaged with a smooth circular motion, applying no undue pressure. When a contraction occurs the hand is held still.
  – Assess the general physical condition of the mother. (face, skin…)
  – Monitor TPR and blood pressure.
– Put the infant to the breast to suck or stimulate the nipple manually.
– Prepare instruments and equipment such as sterile gloves, cannula # 18, IV set, catheter set.... etc.
– Administer oxytocics as ordered.
– Start IV infusion and oxytocin drip.
– Empty the bladder.
- Examine the expelled placenta and membranes for completeness.
- Administer medications as ordered.

- Reassure the mother:
  - Never leave the mother alone.
  - Touch the mother’s hand and talk to her.
• 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.
Secondary Postpartum Hemorrhage

• Commonly occurs between 10 to 14 days after delivery.

• Common causes:
  – Retained bits of cotyledon or membranes.
  – Separation of a slough exposing a bleeding vessel.
  – Subinvolution at the placental site due to infection.
Clinical Manifestations

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

• Follow the same steps as in the case of postpartum hemorrhage due to retained parts of placenta.

• In cases of postpartum hemorrhage due to infection the following should be done:
  – Reassure the mother.
  – Monitor TPR and blood pressure.
– Start IV infusion and blood transfusion according to doctor’s orders.
– Prepare sterile instruments and equipment needed for examination.
– Empty the bladder.
– Administer medications as ordered (broad spectrum antibiotic).
– Follow strict aseptic technique while providing care to the woman.
– Frequent changing of sanitary pads.
Puerperal Sepsis

Introduction

• Puerperal sepsis is one of the most common causes of maternal morbidity and mortality during the postpartum period. In Egypt, it is the third leading cause of death associated with child bearing. Puerperal sepsis is the attributable cause of 12% of all direct obstetric deaths and 8% of all maternal deaths. (MMR = 13.5/100,000)
Definition

- It is an infection of the genital tract that occurs at any time between the onset of rupture of the membranes or labor and the 42nd day following delivery or abortion in which two or more of the following are present:
  - Pelvic pain
  - Fever of 38.5°C or more measured orally on any one occasion
  - Abnormal vaginal discharge
  - Foul odor of discharge
  - Delay in the rate of reduction of the size of the uterus.
Laboratory Investigations

- Blood cultures.
- Uterine and / or high cervical cultures.
- CBC (complete blood count).
- Fasting Blood Sugar.
- Urine Analysis.
Nursing Management of Puerperal Sepsis

• Clinical examination to assess the general condition of the patient, and her hemodynamic stability.
• Inspection of the external genitalia and perineum to detect any tears or episiotomy as well as the amount, smell and color of the discharges.
• Assess the size of the uterus as well as the presence of any tenderness by both abdominal and bimanual examination.
• Use ultrasonography for the detection of any intrauterine contents at the start and again if the fever persists after the initiation of antibiotics, or if abdomino-pelvic masses start to appear.

• Blood culture and sensitivity must be done once you suspect puerperal sepsis.

• Uterine and high cervical swab might be also taken for culture and sensitivity.
• Start the most relevant broad-spectrum antibiotics (according to the currently locally available antibiogram susceptibility pattern prepared by the H. Antibiotic Committee) until the result of the culture and sensitivity tests are known. Antibiotics can then be changed to a more specific alternative.

• Consider evacuation of the intrauterine contents if there are any.
• Monitor white blood count every 48 hours or according to the clinical course.
• Continue antibiotics.
• X-ray chest for septic pulmonary emboli.
• Pelvic ultrasound abdomen DV thrombosis of pelvic veins
Preventive Measures

Antepartum:

• Eliminate septic focus located in teeth, gums, tonsils, middle ear or skin.
• Correct anemia and prevent pregnancy-induced hypertension.
• Avoid contact with persons having communicable diseases.
• Maintain good personal hygiene.
Intrapartum:

- Follow strict asepsis during conduct of labor.
- Isolate women with infection.
- 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 wound.
- Avoid too many visitors.
- Frequent changing of sanitary pads.
- Swab vulva and perineum using antiseptic solution after each voiding or defecation.
- Maintain proper environmental sanitation.