Al-Zahraa University for women
Health and Medical Technology College
Department of Anesthesiology

Nursing Science

Potential Postoperative Complication (Part Four)

Learning objectives

After completing this lecture, the students will be able to:

- **Describe the responsibilities of the post-anesthesia care unit nurse in the prevention of immediate postoperative complications.**
- **Identify common postoperative problems and their management.**

Potential Postoperative Problems:

❖ Respiratory Complications:

1. **Pneumonia**: Inflammation of the alveoli
2. **Atelectasis**: A condition in which alveoli collapse and are not ventilated
   - ✓ **Preventive Interventions**:
     - Deep-breathing exercises and coughing
     - Moving in bed
     - Early ambulation
3. **Pulmonary embolism**: Blood clot that has moved to the lungs and blocks a pulmonary artery, thus obstructing blood flow to a portion of the lung
   - ✓ **Preventive Interventions Includes**:
     - Turning, ambulation, Anti emboli stockings

❖ Circulatory Complications:

1. **Hypovolemia**: Inadequate circulating blood volume Caused by fluid deficit, or hemorrhage.

✓ **Preventive Intervention Includes:**

- Early detection of signs
- Fluid and/or blood replacement

2. **Hemorrhage**: Internal or external bleeding caused by disruption of sutures, insecure ligation of blood vessels

✓ **Preventive Intervention Includes:**

- Early detection of signs

3. **Thrombophlebitis**: Inflammation of the veins, usually of the legs and associated with a blood clot

Occur as a result of:

- Slowed venous blood due to immobility or prolonged sitting
- Trauma to vein, resulting in inflammation and increased blood coagulability

✓ **Preventive Intervention Includes:**

- Early ambulation
- Leg exercise
- Antiemboli stocking
- Adequate fluid intake

4. **Thrombus**: Blood clot attached to wall of vein or artery (most common legs veins)

Occur as a result of:

- Thrombophlebitis for venous thrombi
- Inflammation of arterial wall for arterial thrombi

5. **Embolus**: Foreign body or clot that moved from its site of formation to another body area (e g lungs, heart, or brain)

Occur as a result of:

- Venous or arterial thrombus
- Intravenous catheter
- Fat, or amniotic fluid

✓ **Preventive Intervention Includes:**

- Turning, ambulation, leg exercises,
- careful maintenance of IV catheter

❖ Urinary System Complications:

1. **Urinary retention**: Inability to empty the bladder, with excessive accumulation of urine in the bladder.

Occur as a result of:

- Depressed bladder muscle tone from narcotics and anesthetics.
- Handling of tissues during surgery on adjacent organs (rectum, vagina).

✓ **Preventive Intervention Includes:**

- Monitoring of fluid intake and output.
- Intervention to facilitate voiding.

- Urinary catheterization as needed.

2. **Urinary tract infection**: Inflammation of the bladder, ureters, or urethra **caused by**:

- Immobilization.
- Limited fluid intake.
- Instrumentation of the urinary tract.

✓ **Preventive Intervention Includes:**

- Adequate fluid intake.
- Early ambulation.
- Aseptic straight catheterization only as necessary
- Good perineal hygiene.

❖ Gastrointestinal Complications:

1. Nausea and vomiting:

Occur caused of: Pain, Abdominal distension, Ingesting of food or fluids before return of peristalsis, Certain medications, Anxiety.

✓ **Preventive intervention includes:**

- IV fluids until peristalsis returns; then clear fluids, full fluids, and regular diet;
- Antiemetic drugs if ordered; also, analgesics for pain

2. Constipation: Infrequent or no stool passage for abnormal length of time (e.g., within 48 hours after solid diet started) **occur reason of**:

- Lack of dietary roughage.
- Analgesics (decreased intestinal motility).
- Immobility.

✓ **Preventive Intervention Includes:**

- Adequate fluid intake,
- High fiber diet,
- Early ambulation.

3. Tympanites: Retention of gases within the intestine **occur cause of**:

- Slowed motility of the intestine due to handling of the bowel during surgery and effects of anesthesia.

✓ **Preventive Intervention Includes:**

- Early ambulation;
- Avoid using a straw,
- Provide ice chips or water at room temperature.

4. Paralytic ileus: Lack of peristaltic activity of intestine **occur because of**:

- Handling of the bowel during surgery.
- Effects of anesthesia.
- Electrolyte imbalance.
- Wound infection

❖ Wound complications:

1. Wound infection: Pathogenic invasions to the incision or drain site resulting in infection and inflammation.

Occur because of: Poor aseptic techniques.

✓ **Preventive Intervention Includes:**

- Keep wound clean and dry.
- Use a septic-techniques when changing dressings.

2. **Wound dehiscence:** Separation of a suture line before the incision heals.

3. **Wound evisceration**: Extrusion of internal organs and tissues through the incision **occur causes of**:

- Malnutrition (emaciation, obesity).
- Poor circulation.
- Excessive strain on suture line.

✓ **Preventive Intervention Includes:**

- Adequate nutrition,
- Appropriate incisional support and avoidance of strain.

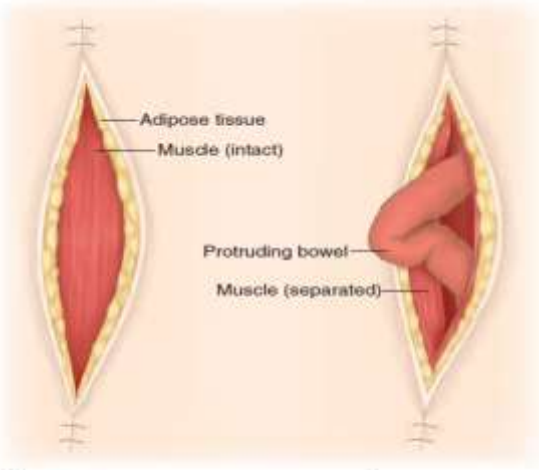

FIGURE 21-6. A, Wound dehiscence. B, Wound evisceration.

❖ Psychological Complications:

1. Postoperative depression: Mental disorders characterized by altered mood **occur because of**:

- Weakness.
- Surprise nature of emergency surgery.
- Severely altered body image.
- News of malignancy and others.

✓ **Preventive Intervention Includes**:

- Adequate rest,
- Physical activity,
- Opportunity to express anger and other negative feelings.

References:

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