Nursing Diagnoses and Interventions

Priority nursing diagnoses for the client with cholelithiasis or cholecystitis often include pain related to biliary colic or surgery, imbalanced nutrition related to the effects of altered bile flow and to nausea and anorexia, and risk for infection related to potential rupture of an acutely inflamed gallbladder. Nursing interventions for the client who has undergone a laparoscopic or open cholecystectomy are similar to those for other clients having abdominal surgery. See Chapter 7.

Pain
The pain associated with cholelithiasis can be severe. Sometimes a combination of interventions is indicated.

• Discuss the relationship between fat intake and the pain. Teach ways to reduce fat intake (see Box 22–3). Fat entering the duodenum initiates gallbladder contractions, causing pain when gallstones are present in the ducts.

• Withhold oral food and fluids during episodes of acute pain. Insert nasogastric tube and connect to low suction if ordered. Emptying the stomach reduces the amount of chyme entering the duodenum and the stimulus for gallbladder contractions, thus reducing pain.

• For severe pain, administer meperidine or other narcotic analgesia as ordered. Recent research indicates that morphine is no more likely to cause spasms of the sphincter of Oddi than meperidine.

• Place in Fowler’s position. Fowler’s position decreases pressure on the inflamed gallbladder.

• Monitor vital signs, including temperature, at least every 4 hours. Bacterial infection often is present in acute cholecystitis, and may cause an elevated temperature and respiratory rate.

Imbalanced Nutrition: Less Than Body Requirements

The client with severe gallbladder disease may develop nutritional imbalances related to anorexia, pain and nausea following meals, and impaired bile flow that alters absorption of fat and fat-soluble vitamins (A, D, E, K) from the gut.

• Assess nutritional status, including diet history, height and weight, and skinfold measurements (see Chapters 19 and 20). Even though often obese, clients with gallbladder disease may have an imbalanced diet or may have specific vitamin deficiencies, particularly of the fat-soluble vitamins.

• Evaluate laboratory results, including serum bilirubin, albumin, glucose, and cholesterol levels. Report abnormal results to the primary care provider. Elevated serum bilirubin may indicate impaired bilirubin excretion due to obstructed bile flow. A low serum albumin may indicate poor nutritional status. Glucose intolerance and hypercholesterolemia are risk factors for cholelithiasis.

• Refer to a dietitian or nutritionist for diet counseling to promote healthy weight loss and reduce pain episodes. A low-carbohydrate, low-fat, higher-protein diet reduces symptoms of cholecystitis. While fasting and very-low-calorie diets are contraindicated, a moderate reduction in calorie intake and increased activity levels promote weight loss.

• Administer vitamin supplements as ordered. Clients who do not absorb fat well due to obstructed bile flow may require supplements of the fat-soluble vitamins.

Risk for Infection

An acutely inflamed gallbladder may become necrotic and rupture, releasing its contents into the abdominal cavity. While the resulting infection often remains localized, peritonitis can result from chemical irritation and bacterial contamination of the peritoneal cavity.

PRACTICE ALERT

Rupture of an acutely inflamed gallbladder may be heralded by abrupt but transient pain relief as contents are released from the distended gallbladder into the abdomen. Promptly report this change to the physician.

Following open cholecystectomy (laparotomy), the risk for pulmonary infection is significant due to the high abdominal incision.

• Monitor vital signs including temperature every 4 hours. Promptly report vital sign changes or temperature elevation. Tachycardia, increased respiratory rate, or an elevated temperature may indicate an infectious process.

• Assess abdomen every 4 hours and as indicated (e.g., when pain level changes abruptly). Increasing abdominal tenderness or a rigid, boardlike abdomen may indicate rupture of the gallbladder with peritonitis.

• Assist to cough and deep breathe or use incentive spirometer every 1 to 2 hours while awake. Splint abdominal incision with a blanket or pillow during coughing. The high abdominal incision of an open cholecystectomy interferes with effective coughing and deep breathing, increasing the risk of atelectasis and respiratory infections such as pneumonia.

• Place in Fowler’s position and encourage ambulation as allowed. Fowler’s position and ambulating promote lung expansion and airway clearance, reducing the risk of respiratory infections.

• Administer antibiotics as ordered. Antibiotics may be given preoperatively to reduce the risk of infection from infected gallbladder contents, and may be continued postoperatively to prevent infection.

Examples of High-Fat Foods

- Whole-milk products (e.g., cream, ice cream, cheese)
- Donuts, deep-fried
- Avocados
- Sausage, bacon, hot dogs
- Gravies with fat, cream
- Most nuts (e.g., pecans, cashews)
- Corn chips and potato chips
- Butter and cooking oils
- Fried foods (e.g., cheeseburgers, hamburgers, french fries)
- Peanut butter
- Chocolate candies