Cholecystitis Interventions

Cholecystitis is gallbladder inflammation caused by biliary obstruction or bacteria entering the gallbladder. Bile is produced in the liver and stored and concentrated in the gallbladder. The condition may be acute or chronic depending on the cause (refer to the Picmonic on "Cholecystitis Causes"). Classic symptoms include right upper quadrant abdominal pain and indigestion (refer to the Picmonic on "Cholecystitis Assessment"). Supportive treatment includes maintaining electrolyte and fluid status and providing a low fat diet. Analgesics may be administered for pain management and antibiotics will help treat the infection. If cholecystitis is related to stone formation, lithotripsy may be performed to eliminate the blockage. Patients who undergo cholecystectomy may have a T tube in place to facilitate drainage.

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Supportive Therapy
Supportive IV bags
Maintaining the patient's fluid and electrolyte balance is critical while providing supportive treatment to the patient with cholecystitis. Vomiting associated with cholecystitis may lead to metabolic alkalosis and chloride shift. Administering NaCl will help compensate for the shift in chloride levels.

Antibiotics
ABX-guy
Antibiotics are administered to treat bacterial infection that may be present in cholecystitis. Common causative organisms are E. coli, streptococci, and salmonellae, which invade the gallbladder via the vascular or lymphatic system.

Low Fat Diet
Low Bacon
To prevent flare-ups of biliary colic, educate the patient about the importance of adhering to a diet with minimal saturated fats, such as butter, shortening, or lard. Encourage the patient to increase their intake of fiber and calcium. Although a reduced-calorie diet may be recommended for obese patients, avoid rapid weight loss because it may cause gallstone formation. Instruct the patient to avoid spicy and fatty foods to prevent gallbladder irritation. Eating smaller, more frequent meals with a small amount of fat may assist with gallbladder emptying.

NG Tube
Nose-stomach Tube
Inserting a nasogastric (NG) tube in the patient with cholecystitis experiencing severe vomiting will help decompress the stomach and minimize gallbladder stimulation. Minimizing stimulation will help rest the inflamed organ and prevent further irritation.

Analgesics
A-nail-Jay-Z
Pain management using analgesics is critical during an acute episode of cholecystitis. Morphine may be initially given for pain management. NSAIDs, such as ketorolac (Toradol), may be administered to help decrease pain associated with gallbladder inflammation [refer to the Picmonic on "Ibuprofen (NSAIDs)"].

Lithotripsy
Lizard-gypsy
Components of bile that precipitate into stones include cholesterol, bile salts, bilirubin, calcium, and protein. If the patient's cholecystitis is caused by the formation of gallstones, lithotripsy may be indicated. After using ultrasound to locate gallstones, high energy shock waves are used to disintegrate the stones. After lithotripsy, the fragments travel through the common bile duct and into the small intestine for excretion.

Cholecystectomy
Coal-on-fire-in-gallbladder cut off by Scalpel
A cholecystectomy is the surgical removal of the gallbladder. Usually done laparoscopically (called a “lap chole”), this procedure dissects the gallbladder within the abdomen and removes it from the abdominal cavity using grasping forceps. Three or four tiny incisions are made on the abdomen and the patient is often discharged the day of the surgery. After an open or incisional cholecystectomy via a right subcostal incision, a T tube may be inserted to facilitate drainage of the common bile duct. Patients often remain in the hospital for a couple days following this incisional approach.

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T Tube

T-tube

After gallbladder surgery, a T tube may be inserted into the common bile duct. The T tube allows excess bile to drain as the small intestines adjust to receiving continuous bile flow. The T tube is connected to a closed gravity drainage system and must be observed for proper functioning and drainage. Nursing responsibilities include measuring the amount of drainage and noting its color and consistency. Keep in mind that the usual amount of bile excretion by the liver is between 500 mL to 1 liter per day, so anticipate a large amount of bile drainage in the collection device.

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