What Medical Nutrition Therapy Guideline Is Recommended Post-Cholecystectomy?

The gallbladder is a pear-shaped organ that functions as the reservoir for bile, which is produced by the liver, until it is needed for digestion of fats in the small bowel. The liver produces about 3 to 5 cups of bile every day. Bile is a green-brown fluid that is composed of bile salts, fatty compounds, cholesterol, and other substances. Bile salts act as emulsifiers/surfactants to reduce the size of the fat droplets.

Risk factors for gallbladder disease or stones include the following: female, especially if pregnant, on hormone therapy or using birth control pills, or over the age of 60 years; people with a history of rapid or significant weight loss using very-low-kilocalorie diets; increased fat and sugar intake in the food history; and a sedentary lifestyle.\(^1\)

Being either Hispanic or Native American also predisposes an individual to gallbladder disease. In addition, the prevalence of gallstones is associated with a number of diseases: type 2 diabetes, dyslipidemia, and hyper-insulinemia.\(^2\) The majority of stones appear to remain “silent” and do not require medical or surgical treatment. When mild symptoms are present, a low-fat nutrition prescription (<30% energy from fat) with a modest protein content, small, frequent feedings, and the avoidance of alcohol may assist in controlling symptoms. In an acute gallbladder attack, all food is held until an evaluation can be completed and treatment options considered.\(^1\)

The prevalence of gallbladder disease ranges from 10% to 15% in adults and is one of the most common digestive diseases requiring hospital admission and financial resources.\(^4\) Surgical removal of the gallbladder either as an open operation or as laparoscopic cholecystectomy is standard treatment for gallbladder disease. Laparoscopic cholecystectomy is considered the gold standard for treating patients with symptomatic gallstones.\(^2\)

A number of post-surgical complications following cholecystectomy have been cited in the scientific literature. The Nutrition Care Manual states diarrhea may occur in some people, probably as a result of an increased amount of bile in the large bowel. In most cases, the diarrhea lasts no more than a week to a few months, with increased duration of diarrhea with higher intake of fatty food.

Post-cholecystectomy syndrome (PCS) may occur when abdominal symptoms develop after surgery. Prevalence of PCS has been reported from 5% to 40% of people following cholecystectomy.\(^2\) Symptoms may include upset stomach, nausea, vomiting, gas, bloating, diarrhea, or persistent pain in the upper right abdomen. It is thought that the symptoms are not caused by, but are exacerbated by, the cholecystectomy. In addition, patients may experience symptoms of gastritis secondary to duodenogastric reflux of bile acids. The reflux may also be responsible for symptoms in the post-cholecystectomy syndrome.\(^4\) In a recent article by Yuen and colleagues, other issues noted were indigestion, fatty food intolerance, and heartburn.\(^7\)

There is not a standard guideline for medical nutrition therapy (MNT) post-cholecystectomy. MNT should be individualized based on the patient’s issues and a number of diet modifications may be indicated. Fat intake should be limited for several months to allow the liver to compensate for the gallbladder’s absence, should be introduced gradually, and excessive amounts at any one meal should be avoided.\(^5\) Increased fiber intake will help normalize bowel movements. Be sure to increase the amount of fiber slowly over several weeks. It has been suggested that adding soluble fiber to the diet will act as a sequestering agent and bind the bile in the stomach between meals to avoid gastritis.\(^7\) If reflux is an issue, avoid alcohol, caffeinated and carbonated drinks, chocolate, citrus foods and juices, coffee, vinegar-based dressing, onions, tomato-based foods, spicy foods, and mint, and eat smaller meals.\(^3\)

Conflicting research regarding post-cholecystectomy complications continues to be cited in the literature. As a registered dietitian nutritionist, it is imperative to use critical-thinking skills to assess and interpret data to provide appropriate MNT for each patient.

References


Related Resources


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