Scope

This guideline provides recommendations for the management of asymptomatic and uncomplicated symptomatic gallstones in adults.

**Recommendation 1:** Asymptomatic gallstones

Surgical consultation and surgery are not recommended for adults who have asymptomatic gallstones, found incidentally by diagnostic imaging or abdominal surgery.

**Recommendation 2:** Symptomatic gallstones

a) Surgical Intervention

- If a patient with symptomatic gallstones puts a relatively high value on preventing recurrent pain then surgical removal of the gallbladder may be considered. About 70 per cent of patients will experience the recurrence of gallstone-related pain if left surgically untreated. Laparoscopic cholecystectomy is recommended in symptomatic patients who are suitable candidates for surgery and who wish to have surgical intervention.

b) Non-surgical Management

- (i) Oral bile acids are rarely indicated for dissolution therapy in patients who are unsuitable for or who decline surgery.
- (ii) Lithotripsy is not indicated for the primary treatment of simple gallstone disease.

**Rationale**

Gallstones are common in western society. The prevalence is higher in women and increases with age. Other risk factors for gallstone formation include:

- Pregnancy
- Aboriginal heritage
- Family history
- Obesity
- Rapid weight loss
- Ileal disease/resection
- Long term TPN
- High dose estrogen therapy

**Note:** Diabetes mellitus and oral contraceptives strongly associated with but not conclusively proven to cause gallstones.

Most gallstones are asymptomatic and remain so for the life of the patient. Complications or symptoms will develop in one to two per cent of patients per year. It also appears that the longer the stones remain quiescent, the less likely are complications to appear. Surgery is not indicated in asymptomatic patients. Some exceptions include patients with sickle cell disease and gallstones, and patients with calcified ("porcelain") gallbladders where the risk of gallbladder cancer is very high.
Prophylactic cholecystectomy had previously been recommended in diabetic patients in order to avoid the high morbidity and mortality rates associated with emergency operations. However, the increased risks are due to cardiovascular disease and other comorbid conditions which are present whether the surgery is elective or emergency. Therefore, asymptomatic patients with diabetes should not have prophylactic surgery.4

There is sometimes confusion about which symptoms are caused by gallstones. Symptoms such as “indigestion” and “abdominal discomfort” have equal incidence in patients with and without gallstones.2,7 Biliary pain typically presents as discrete episodes of right upper quadrant pain and may last for hours. Only symptoms directly attributable to gallstones will resolve with surgery.8,9 The presence of mild or occasional symptoms does not connote significantly increased risk for complications compared to asymptomatic patients. Symptoms can wax and wane, and will occasionally improve with time.10 Therapeutic decisions should be based on symptoms, and not on the number or size of gallstones.

Laparoscopic cholecystectomy is now the standard approach to the treatment of symptomatic gallstones.

Note: Patient education guide is available at the Ministry of Health Website:
www.healthservices.gov.bc.ca/msp

References

Sponsors
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What does the gallbladder do?

The gallbladder is a small hollow organ located in the right side of the abdomen under the liver. The gallbladder stores and concentrates bile which is produced in the liver. Bile is used to digest and process food. When needed, the gallbladder releases bile through a small tube called a bile duct into the small intestine.

What are gallstones?

Gallstones form in the gallbladder. Most are composed of cholesterol and can vary in size and number. Most gallstones do not cause symptoms or problems. Sometimes gallstones will irritate the gallbladder or block the bile duct, causing pain.

What is the treatment for gallstones?

If your gallstones are not causing pain treatment is not recommended. If you develop symptoms from your gallstones consult your physician.

If you have mild infrequent symptoms from your gallstones you may safely wait to see if your symptoms worsen. With more frequent or severe symptoms you may wish to consider surgical removal of the gallbladder. Simply removing the stones without removing the gallbladder is not an adequate long-term treatment because of recurrence.

Surgical removal of the gallbladder is called cholecystectomy. Laparoscopic cholecystectomy is the removal of the gallbladder through a number of small incisions in the abdomen. The operation requires a general anaesthetic. Removal of your gallbladder should have little effect on your lifestyle or diet.

In rare cases when an individual cannot safely have surgery, non-surgical methods may be considered. However, commonly gallstones recur after non-surgical treatment.

As with all treatments, there are both benefits and risks. You should discuss your options with your doctor.