# Rethink Cholecystectomy During Bariatric Surgery

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SAN FRANCISCO — Relatively few patients benefit from routine cholecystectomy during laparoscopic or open gastric bypass surgery, according to results of two studies presented at the annual meeting of the American Society for Bariatric Surgery.

The new studies indicate that 10% or less of asymptomatic patients with negative findings during preoperative work-up will develop gallstones and even those with positive findings on ultrasound and CT scans or liver function tests have a low incidence of delayed cholecystectomy.

"We agree that any patient with acute or chronic cholecystitis would best benefit from a cholecystectomy, but our data [do] not support routine ultrasound or routine cholecystectomy in asymptomatic, morbidly obese patients considering weight loss surgery," said Dr. Dana D. Portenier of Duke University, Durham, N.C.

Routine cholecystectomy during open Roux-en-Y gastric bypass (RYGB) surgery was first recommended in 1985, and it is commonly done because 10%-25% of patients undergoing this procedure develop gallstones.

**Cholecystectomy during bariatric surgery has been performed safely, but the procedure increases operative time and nearly doubles the length of hospital stay.**

Although ursodeoxycholic acid is sometimes used to decrease the incidence of post-RYGB cholelithiasis, this practice has been criticized because of poor compliance and increased costs, Dr. Portenier said.

Cholecystectomy during laparoscopic RYGB has been performed safely, but the additional procedure increases operative time and nearly doubles the length of hospital stay (Obes. Surg. 2003;13:76-81).

Dr. Portenier and his colleagues reviewed the use of pre- or intraoperative ultrasound in 1,391 consecutive patients with abdominal complaints or elevated liver function tests who received RYGB during 2000-2005. Cholecystectomy was performed only in patients with biliary symptoms and positive findings on ultrasound. No patients received ursodeoxycholic acid postoperatively. Most patients (1,228) had laparoscopic operations.

The investigators excluded 334 patients (24%) from the study because they previously had a cholecystectomy.

The gallbladder was removed during RYGB in 17 of 541 patients who did not receive an ultrasound and in 27 of 406 patients who had a normal ultrasound. Most of these gallbladders were removed early in the series of patients during open RYGB, when it was the center's policy to perform routine cholecystectomy.

The gallbladder was removed at a later date in 29 (6%) of the remaining 524 patients who did not receive an ultrasound and in 37 (10%) of the remaining 379 patients who had a normal ultrasound.

Of the 110 patients with positive findings on ultrasound, 29 had their gallbladders removed during RYGB. Among the remaining 81 patients with positive findings on ultrasound, just 14 (17%) required a delayed cholecystectomy when they developed biliary symptoms.

All of the delayed cholecystectomies were performed between 1 and 30 months after RYGB, at an average of 11 months. The increased incidence of cholelithiasis mainly occurs in the first 2 years after surgery and thereafter returns to baseline, Dr. Portenier said.

"Proponents of prophylactic cholecystectomy at the time of gastric bypass worry about gallstone pancreatitis, choledocholithiasis, and the unique problems they present in the Roux-en-Y gastric bypass," he said.

Of the 80 patients who required a delayed cholecystectomy, only 1 developed mild gallstone pancreatitis and none developed choledocholithiasis. One patient had a bile duct injury.

In a separate presentation, Dr. Scott J. Ellner reported on his center's experience with the use of a preoperative work-up to determine the need for a concomitant cholecystectomy during either RYGB or laparoscopic adjustable gastric banding (LAGB). The work-up includes abdominal ultrasound scanning, liver function tests, and a health history.

"Many patients are asymptomatic at the

time of preoperative work-up, despite having findings on ultrasound or abdominal CT scanning, and these patients also continue to be asymptomatic even after their weight loss surgery," said Dr. Ellner of the Center for Bariatric Surgery at St. Francis Hospital, Hartford, Conn.

Of 621 patients who underwent RYGB or LAGB at the center during 2003-2005, 451 had not undergone a previous cholecystectomy. After 4-25 months of follow-up, 29 (9%) of 332 patients who were originally asymptomatic and had a negative ultrasound scan at the time of the preoperative work-up developed symptoms of biliary disease. Similarly, of 102 patients who were originally asymptomatic but had positive findings on ultrasound during the preoperative work-up, 9 (9%) later developed symptoms of biliary disease. A total of 17 patients who were symptomatic during the preoperative work-up had their gallbladders removed during bariatric surgery; most of these patients had open procedures, Dr. Ellner said.

None of the patients received ursodeoxycholic acid after surgery.

The percentage of patients who later required a delayed cholecystectomy changed to 10%-11% if the 98 patients who received LAGB were removed from the analysis. LAGB typically causes slower and less weight loss than RYGB and would be expected to have a lower incidence of cholelithiasis than RYGB.

The patients who received LAGB had a shorter median time to cholecystectomy (4 months) than did those who received open (14 months) or laparoscopic RYGB (9 months), "which was somewhat perplexing and we're still trying to figure out why this is the case," Dr. Ellner said.

Nearly all of the delayed cholecystectomies (37 of 38) in Dr. Ellner's study were performed laparoscopically. Four patients had choledocholithiasis, and one had gallstone pancreatitis.

In both studies, the patients who participated because they did not have a previous cholecystectomy may represent a preselected population with a lower risk for gallbladder pathology, the speakers noted.

The incidence of symptomatic biliary disease "will grow considerably" during the following decades from the 9% that was detected in the "very, very short follow-up" of Dr. Ellner's study, cautioned audience member Dr. Michael G. Sarr of the Mayo Clinic, Rochester, Minn. "That doesn't mean that we should be taking everyone's gallbladder out if you do [bariatric surgery] laparoscopically, but if you do [open surgery], I don't see any reason not to" take the gallbladder out. ■