Missed intra-abdominal malignancies after laparoscopic cholecystectomy

To the Editor: Laparoscopic cholecystectomy (LC), introduced by Mouret in 1987, is now regarded as the gold standard for symptomatic cholelithiasis.[1] Despite the large numbers of reports attesting to the advantages and safety of the procedure in large series of patients, there are concerns about its safety. Because of the elimination of manual examination of the abdominal cavity, Gal et al speculated that laparoscopy might result in overlooking certain intra-abdominal pathologies.[2] Delay in the diagnosis of intra-abdominal malignancies was considered a major drawback of the laparoscopic approach.[3] This retrospective study was performed to evaluate our experience with missed intra-abdominal malignancies in patients who underwent laparoscopic cholecystectomy.

Between January 1994 and December 2002, 2237 patients underwent LC in the Department of General Surgery, Ege University Medical School. The diagnosis of cholelithiasis was based on careful anamnesis and abdominal ultrasound. Indications for surgery were acute and chronic cholecystitis in all patients with abdominal ultrasonography revealing gallstone disease, a thickened gallbladder wall or pericholecystic fluid.

A retrospective analysis of 2237 patients that underwent LC at our unit identified four patients with concomitant intra-abdominal malignancy. All four patients were female, whose ages ranged between 44 and 73 years. All complained of abdominal pain. Two had intermittent abdominal pain localized to the right upper quadrant, and nausea, while the other two patients had symptoms that were more insidious. The duration of the symptoms ranged between 3 and 12 months. Preoperative laboratory findings, including liver function tests, were normal. Histological examination confirmed the evidence of chronic cholecystitis in all patients.

Four patients were admitted with either new or similar symptoms between the second week and the fourteenth month following surgery. Patient 1, later diagnosed with gastric carcinoma, had weight loss, in addition to the recurrent right upper abdominal pain and nausea. Patient 2 referred with symptoms of mechanical bowel obstruction, two months after LC. Immediate laparotomy revealed sigmoid colon cancer. Patient 3 was readmitted two weeks after LC with symptoms of partial intestinal obstruction. Further investigation with colonoscopy demonstrated a malignant tumor located on the right flexure of the large bowel. Patient 4 referred with anemia symptoms and further investigation with colonoscopy demonstrated a sigmoid colon cancer. The three patients with colorectal cancer underwent radical resection, while the patient with gastric cancer underwent subtotal gastrectomy with wedge resection of the main bile duct (Table 1).

Reports on missed major intra-abdominal pathologies have raised concerns.[2,3,4-10] In series that report positive findings in 47% to 76% of patients with chronic abdominal pain, routine laparoscopic exploration at the beginning of every procedure and greater mastery in diagnosis have been recommended.[11,12]

Although there are limited reports, the incidence of intra-abdominal malignancies missed during LC is reported between 0.5% and 1.2%, with a preponderance of colorectal cancers.[5,6-10]

Table 1. Patients with concomitant malignant tumor.

Case	Age/Sex	Time of laparatomy	Diagnosis	Procedure	Subsequent course
1	44F	8 months	Gastric cancer (stage IIIB)	Resection	Died 12 months later of disseminated disease
2	63F	2 months	Sigmoid cancer (stage II)	Resection	Died 46 months later of disseminated disease
3	73F	15 days	Right colon cancer (stage III)	Resection	Well at 11 months postop
4	65F	14 months	Sigmoid cancer (stage III)	Resection	Well at 9 months postop

Although we report an incidence of 0.18%, all patients readmitted with advanced disease, in accordance with other reports.[9,10] In fact it is an important problem since delay in the diagnosis of a malignancy worsens the prognosis and may affect curability.

Until recently, symptomatic cholelithiasis was ill defined. Nonspecific symptoms like abdominal pain, nausea and dyspepsia may lead us to a diagnosis of a gallstone disease with the help of an upper abdominal ultrasonographic examination revealing cholelithiasis. But ultrasound rarely allows for the visualization of intra-abdominal pathology related to gastric or intestinal disorders. Studies reporting the association between colorectal cancer and cholelithiasis suggest further examination for coexisting colorectal malignancy in patients with symptomatic cholelithiasis undergoing laparoscopic or open surgery after the age of 50 years.[13,14] Ultrasound seems to be inadequate, especially after the fifth decade. In this series, all cases, except one, exceeded the age of 50 years.

Since standards and methods of patient examination prior to cholecystectomy have not changed much since the introduction of LC, we believe that a more careful anamnesis may lead to a diagnosis of an intra-abdominal pathology coexisting in patients having cholelithiasis. Especially, patients with atypical symptoms require extremely thorough diagnostic workup like additional laboratory tests, upper gastrointestinal endoscopy, colonoscopy and abdominopelvic ultrasonography as a means of detecting malignancies or other causes of upper abdominal pain, which was recommended by the National Institutes of Health Consensus Development Panel.[15]

Our data and the review of the literature indicate that the diagnosis of cholelithiasis and afterwards laparoscopic exploration must be done seriously and without hurry. Symptoms persisting after LC, especially in patients exceeding an age of 50 years, require prompt and further evaluation in this era of more precise imaging.

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DiGeorge's syndrome presenting as hypocalcemia in an adult

To the Editor: Seizures can occur in hypocalcemia, and may be the sole presenting symptom.[1] There are several congenital forms of hypoparathyroidism, some sporadic and others inherited.[2] A child with hypoparathyroidism was the original description by DiGeorge.[3] The acronym "CATCH 22" (cardiac, abnormal facies, thymic hypoplasia, cleft palate, and hypocalcemia resulting from 22q11 deletions) has been proposed to describe the phenotype that results from congenital failure of development of the third and fourth pharyngeal pouches.[4,5] We report a 25-year-old woman with DiGeorge's syndrome who presented with hypocalcemia secondary to hypoparathyroidism.

A 25-year-old East Indian women raised in the Punjab was mildly mentally challenged, never able to go school and illiterate. She had seizures from the age of 10 years. She had no further seizures and dilantin was stopped at age 12. She had no other medical problems and had never been pregnant. She started having tonic-clonic seizures when she was 25 years old, with five minutes of loss of consciousness. She had no fever and no seizure recurrence. The father was diagnosed