Open Bile Duct Explorations Have Declined Sixfold

This decrease may signal a loss of physician skill and experience in doing all open procedures.

BY ALICIA AULT
Contributing Writer

NEW ORLEANS — Over the past decade, there has been a sixfold decline in open common bile duct explorations, said Edward Livingston, M.D., FACS, at the annual clinical congress of the American College of Surgeons.

This decrease may signal a loss of skill and experience in doing all open procedures, said Dr. Livingston. After learning that one of his residents had never performed an open procedure, Dr. Livingston investigated common bile duct explorations (CBDEs) to see whether the resident's situation was unusual.

Bile duct exploration typically is performed when there's a suspected blockage or obstruction. It requires general anesthesia, the injection of contrast dye and use of x-ray to highlight obstructions, and a 1- to 4-day hospital stay. Increasingly, however, patients with gallstones or other suspected blockages are undergoing endoscopic retrograde cholangiopancreatography (ERCP), a less invasive procedure that also allows imaging of stones.

Dr. Livingston, chair of the gastrointestinal and endocrine surgery division at the University of Texas, Dallas, wanted to see whether ERCP was supplanting CBDE and whether healthier patients were being referred to the endoscopic procedure while sicker patients were undergoing the open procedure. Using the federal government's National Hospital Discharge Summary, he flagged procedures performed in the biliary tract from 1979 to 2001, the most recent year for which information was available.

There were 47,000 CBDEs in 1979, but by 2001, only 7,700 were performed. The number of ERCPs rose steeply in 1989, when a billing code was added, and continued to increase throughout the 1990s, Dr. Livingston said.

He found that as the number of open explorations declined, complication rates increased. Most occurred in the operating room and usually involved technical errors by the surgeon, such as accidental lacerations, he said.

Increasingly, patients with gallstones or other suspected blockages are undergoing endoscopic retrograde cholangiopancreatography.

"There are probably too few common bile duct explorations now to [ensure] adequate training and experience," said Dr. Livingston, adding that CBDEs should perhaps be done only by more experienced surgeons.

"As bad as these results are for CBDE now, the worse may be yet to come," said Keith Lillimoe, M.D., FACS. He said the trends seen with CBDEs could be viewed as a harbinger for all surgeries. "Imagine what it will be like in 10 years, when few residents are trained in open procedures," said Dr. Lillimoe, chair of the department of surgery at Indiana University.

Citing data from the American Council of Graduate Medical Education, Dr. Lillimoe said that in 1989-1990, chief surgical residents performed an average of 57 open cholecystectomies. In 2002-2003, that number dropped to 12.8. Chief residents performed 9.8 open CBDEs on average in 1989-1990 and only 3 by 2002-2003.

Dr. Lillimoe also said he's concerned that a growing number of patients may become ineligible for ERCP—in particular, those who have had the Roux-en-Y gastric bypass. ■

Increase in Liver Cancer Rate Outpaces All Other Cancers

BY MARTHA KERR
Contributing Writer

BOSTON — Liver cancer is the fastest growing malignancy in the United States, according to a preliminary report from the newly organized Liver Cancer Network.

The network includes six medical centers and has enrolled about 250 patients, Alex S. Befeler, M.D., reported at the annual meeting of the American Association for the Study of Liver Diseases.

Liver cancer is still relatively rare, but "what is striking is that it is the cancer most rapidly increasing in this country," said Dr. Befeler of St. Louis University.

The primary purpose of the Liver Cancer Network is to track the incidence and mortality of hepatocellular carcinoma. There has been no way to document this until now, Dr. Befeler noted. A second objective is to assess the effectiveness of cancer staging systems, which vary widely across the United States.

"There has been a lot of enthusiasm for the Liver Cancer Network, especially since the meeting," he later told this newspaper. "The main problem has been funding. At this point, the project is unfunded, and that has been a major obstacle."

On patient enrollment, blood samples are collected, and demographic and risk factors for hepatocellular cancer and other liver diseases are documented. Tumor characteristics and treatment protocols are recorded.

The mean age of the report's patient group is 59 years, and 75% are male. Eighty percent are white, 10% are African American, 4% are East Asian, and 4% are Hispanic. In this preliminary report, mean follow-up is 6 months.

Overall, 87% of patients with hepatocellular cancer have had underlying liver disease; 52% have hepatitis C virus infection, and 11% have hepatitis B virus infection. One-fifth of patients with liver cancer have a history of alcohol abuse. Two percent have a history of hemochromatosis, Dr. Befeler reported.

Liver cancer is often asymptomatic when first diagnosed: 42% of the patients enrolled in the Liver Cancer Network were asymptomatic on presentation. Survival is "significantly better for those who are asymptomatic at presentation or who were candidates for liver transplantation," he said.

Overall, 26% of the patients received no treatment, 18.5% got a liver transplant, 13% underwent surgical resection, 13% received chemoembolization, 10% had local ablation, 6% received chemotherapy, 5.6% underwent hepatic artery embolization, and 5% received radiation. Fewer than 5% of the patients received other treatments. Chemotherapy is generally ineffective in the treatment of liver cancer, and treatment modalities other than liver transplantation are also not highly successful, he said.

A major problem in the management of liver cancer has been that "oncologists and tumor registries have poor staging systems," Dr. Befeler noted. He added that the systems frequently compete and conflict with each other.

"The UNOS [United Network for Organ Sharing] allocation system is best," he said, adding that data from the Liver Cancer Network support that assertion. The tumor-node-metastasis staging system, in which patients are classified according to tumor size, "doesn't work very well." And the original Okuda staging system, established in Japan, is ineffective, he said, as is the Barcelona Clinic Staging System. ■

Hemodialysis Patients Had 82% Higher Risk of Colorectal Cancer

BY JEFF EVANS
Senior Writer

ORLANDO, FLA. — Hemodialysis patients with end-stage renal disease have a high risk for colorectal cancer, compared with the general population, Jonathan M. Koff, M.D., reported at the annual meeting of the American College of Gastroenterology.

Patients on dialysis already are known to have an increased risk for hematologic, thyroid, cervical, bladder, kidney, and skin malignancies.

In three separate studies, nephrologists have concluded that colorectal cancer screening is not cost effective in dialysis patients, Dr. Koff said, but that perception could change based on evidence of a high risk of colorectal cancer in such patients, along with growth in the number of patients with end-stage renal disease (ESRD).

In 2001, 96,000 new patients developed ESRD. At that time, about three-fourths of the 406,000 patients who received renal replacement therapy were on dialysis, while the other one-fourth had kidney transplants. The diabetes and metabolic syndrome epidemics may increase the number of patients who receive renal replacement therapy to more than an estimated 2.2 million by 2030, said Dr. Koff of Walter Reed Army Medical Center, Washington.

He and his colleagues conducted a retrospective cohort study of 272,024 patients in the United States Renal Data System, which is managed by the National Institute of Diabetes and Digestive and Kidney Diseases. These patients began dialysis therapy for ESRD between 1995 and 1999 with Medicare as their primary payer.

During the study period, 1.1% of dialysis patients developed colorectal cancer. Dialysis patients had an 82% higher risk of colorectal cancer, compared with age-matched rates in the general population in the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) database on cancer statistics.

The risk for developing colorectal cancer declined with increasing age; patients aged 30-39 years had the highest risk—more than eightfold higher than the risk for people of the same age in the SEER database.

In a multivariate analysis, advanced age, other malignancy, hemodialysis (rather than peritoneal dialysis), and low hemoglobin and albumin levels were associated independently with an increased risk of colorectal cancer.

Dr. Koff pointed out that he could not independently confirm the diagnoses of colorectal cancer or determine if any of the patients were screened for colorectal cancer before or during the study period.

Only 32% of dialysis patients with colorectal cancer survived 1 year after being diagnosed with cancer; 10% lived 5 years after the diagnosis.

Several different mechanisms could contribute to the increased incidence of colorectal cancer in dialysis patients. Uremia may contribute by causing "functional immunosuppression or decreased tumor surveillance," Dr. Koff said.

Patients with ESRD may have a lower prevalence of nonsteroidal anti-inflammatory drug use than other patients, according to one study, perhaps providing less chemoprevention, he suggested. Another recent study found that patients with type 2 diabetes who take insulin have a higher risk of colorectal cancer than do similar patients who don't take insulin (INTERNAL MEDICINE NEWS, Nov. 15, 2004, p. 60). ■