

GLOSSARY

TNM STAGE

A classification that is based on the presence or absence and the extent of involvement of a primary tumor (T), regional nodes (N) and metastasis (M)

Genetic and environmental risk factors for primary biliary cirrhosis

Primary biliary cirrhosis (PBC) is a rare autoimmune disease that is costly to treat and increasing in prevalence. Although a genetic susceptibility has long been suspected, environmental factors are also likely to have a role in the etiology of PBC. Epidemiologic data relating to PBC risk factors are limited.

Gershwin *et al.* have considerably expanded the available data by conducting telephone interviews based on a modified version of the US National Health and Nutrition Examination Study (NHANES III) questionnaire. They interviewed 1,032 patients with PBC from 23 tertiary referral centers for liver disease, and 1,041 controls who were selected by random-digit dialing and matched for sex, 5-year age-group, ethnicity and geographic area.

The mean age at diagnosis of PBC was 51 ± 10 years. Comorbid autoimmune conditions were common: the prevalence of Raynaud and Sjögren syndromes was 6–20 times higher in patients than controls ($P < 0.0001$ for both) and rates of systemic lupus erythematosus, scleroderma and autoimmune thyroid disease were also elevated. The presence of a first-degree relative with PBC (adjusted odds ratio [AOR] = 10.736) and a history of urinary tract infection (AOR = 1.511), smoking (AOR = 1.569) or use of hormone replacement therapy (AOR = 1.548) were all associated with an increased PBC risk.

Although information was obtained directly from patients without medical confirmation, this study provides valuable information about PBC risk factors. The authors suggest this should be consolidated by initiating linkage studies, to clarify genetic contributors, and animal studies to characterize the environmental determinants of risk.

Rebecca Doherty

Original article Gershwin ME *et al.* (2005) Risk factors and comorbidities in primary biliary cirrhosis: a controlled interview-based study of 1032 patients. *Hepatology* **42**: 1194–1202

EUS provides no advantage for staging T3 esophageal cancer

Stage T3 esophageal cancers encompass a range of clinical presentations, from those in

which tumor invasion of the muscularis propria can only be detected by microscope, to those in which there is gross invasion beyond the muscularis propria that just stops short of invading adjacent organs. Yusuf *et al.* investigated whether minimally invasive disease, as assessed by preoperative endoscopic ultrasound (EUS), was associated with better patient outcome, as has been found for some other tumors. For esophageal tumors, however, this seems not to be the case.

All 39 Mayo Clinic patients selected for this retrospective study had *de novo* TNM STAGE T3N1M0 esophageal cancer, staged by fine-needle aspiration and CT, with EUS used to assess depth of tumor invasion. All patients subsequently underwent similar preoperative neoadjuvant chemotherapy and radiotherapy, followed by surgical esophagectomy. The median depth of tumor invasion, determined by EUS, was 3 mm: this threshold value was used to classify 17 patients as having minimally invasive and 22 as having advanced disease, respectively.

The authors found that, over the median follow-up period of 13 months, depth of tumor invasion did not predict either tumor recurrence or mortality rate. These findings support the current TNM staging system, they say, and indicate that patients with minimally invasive disease should be treated no differently from those with advanced disease. It remains to be seen, however, whether these findings can be generalized to heterogeneous patient groups.

Caroline Barranco

Original article Yusuf TE *et al.* (2005) Clinical implications of the extent of invasion of T3 esophageal cancer by endoscopic ultrasound. *J Gastroenterol Hepatol* **20**: 1880–1885

US experience with combined lung and liver transplantation

Combined lung and liver transplantation is a rare procedure, as patients with end-stage liver and lung disease are unlikely to survive the wait for suitable donor organs. This complex operation—indicated for patients unlikely to survive transplantation of the liver or lung alone—has consequently been scarcely documented in the literature and the expected outcomes of the procedure are unknown.

The US experience of combined lung and liver transplantation has been investigated