

Celiac disease: malignancy and mortality

Several studies have shown an increased risk of malignancy and mortality in patients with celiac disease, but robust data are lacking. Using the UK general practice database—the largest of its kind—West and colleagues have compared rates of malignancy and mortality in 4,732 people with celiac disease and 23,620 matched controls.

The study showed a modest increase in mortality in patients with celiac disease compared with the general population (hazard ratio [HR] 1.31, 95% CI 1.13 to 1.51) and the risk of any malignancy was similarly increased (HR 1.29, 95% CI 1.06 to 1.55). Since the excess risk of malignancy was greatest during the first year after diagnosis of celiac disease, the authors note that ascertainment bias may account for most of the increase. Analysis of subgroups showed that celiac disease patients were at increased risk of gastrointestinal cancer (HR 1.85, 95% CI 1.22 to 2.81) and lymphoproliferative disease (HR 4.80, 95% CI 2.71 to 8.50). Conversely, the risk of lung cancer was lower in people with celiac disease than in the control cohort (HR 0.34, 95% CI 0.13 to 0.95). It could not be ruled out, however, that this decreased risk was related to a lower proportion of smokers in the celiac disease group. The risk of breast cancer was also markedly reduced in the celiac disease group compared with controls (HR 0.35, 95% CI 0.17 to 0.72) and the authors suggest that this warrants further investigation.

Original article West J *et al.* (2004) Malignancy and mortality in people with coeliac disease: population based cohort study. *BMJ* 329: 716–719

Adenoma miss rate in optical colonoscopy

Optical colonoscopy (OC) is well-established as the method of choice for detecting colorectal neoplasms. Estimates of its sensitivity, however, have relied on subsequent polyp detection by the same technique. Pickhardt and colleagues have completed the first study of the OC adenoma miss rate using a separate reference standard.

The study was part of a multicenter trial evaluating the performance of three-dimensional

virtual colonoscopy (VC). A total of 1,233 asymptomatic adults who had been referred for colorectal cancer screening were subjected to same-day VC and OC. The prospective OC was carried out without knowledge of the VC interpretation. After unblinding of the VC results, a second-look OC was carried in all cases where polyps had been missed.

Of 511 polyps (≥ 5 mm) detected by second-look OC, 55 (10.8%) were missed by the prospective OC. Second-look OC revealed that 21 of these were adenomatous polyps (≥ 6 mm). Fifteen of the missed neoplasms were nonrectal and the majority of these were located on the backside of a fold. The remaining six missed adenomas were in the rectum, and were within 10 cm of the anal verge in five cases. The OC miss rate for large (≥ 10 mm) adenomas was 12%.

Pickhardt *et al.* conclude that using VC as a reference standard had revealed a higher OC miss rate than had previously been reported. Although OC is a sensitive method for detecting colorectal neoplasia, they note that there are distinct 'blind spots' where important lesions may be missed.

Original article Pickhardt PJ *et al.* (2004) Location of adenomas missed by optical colonoscopy. *Ann Intern Med* 141: 352–359

Avoiding false positives in *H. pylori* detection

The ^{13}C -urea breath test (UBT) is widely used in the diagnosis of *H. pylori* infection. False-positive results can be generated, however, by other urease-producing bacteria in the mouth and intestine. Several methods have been devised to avoid this problem, including the endoscopic UBT, in which ^{13}C -urea solution is sprayed directly into the stomach. Although this approach is more reliable, it is invasive and relatively inconvenient. Urita and colleagues have recently described a non-invasive modification, based on breath sample collection through the nostril.

The authors analyzed data from 127 patients, of whom 42 had biopsy-confirmed *H. pylori* infection. Within 1 week of endoscopy, the patients were subjected to both the standard and the modified UBT. Breath samples were collected through the mouth