Abstracts of current literature on epidemiology, diagnosis, and treatment

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HELICOBACTER PYLORI ERADICATION TO PREVENT GASTRIC CANCER

To determine whether treatment of *H. pylori* reduces gastric cancer incidence in a high-risk region (Fujian Province, China), researchers conducted a randomized, placebo-controlled, population-based study of patients with endoscopically proven *H. pylori* infection. Patients were recruited in July 1994 and were followed until January 2002. Patients were excluded if they were younger than 35 years or older than 65 years, had severe concomitant illnesses, had a history of *H. pylori* eradication treatment, or had proven endoscopic ulcers. The remaining patients (n = 1630) were randomized either to a 2-week course of triple eradication therapy (n = 817) or placebo (n = 813). All participants were followed every 6 months. At 5 years, patients received additional endoscopic examinations; extra biopsies were taken for patients with significant pathologic findings. The primary outcome was the difference in the gastric cancer incidence between the study and control groups. The secondary outcome was gastric cancer incidence in patients with or without cancerous lesions as compared between the 2 groups. Among the 18 new cases of gastric cancer, no overall reduction was observed in participants who received *H. pylori* eradication treatment (n = 7) compared with those who did not (n = 11) ($P < 0.33$). In a subgroup of patients without precancerous lesions, no patient developed gastric cancer during 7.5 years of follow-up after eradication therapy compared with 6 patients who received placebo ($P = 0.02$). Smoking (hazard ratio [HR], 6.2 [95% confidence interval {CI}, 2.3–16.5]; $P < 0.001$) and older age (HR, 1.10 [95% CI, 1.05–1.15]; $P < 0.001$) were independent risk factors for development of gastric cancer. Gastric cancer incidence is similar between patients receiving either eradication therapy or placebo; however, eradication of *H. pylori* in patients without precancerous lesion significantly reduced the development of gastric cancer.

Wong BC, Lam SK, Wong WM, et al. Helicobacter pylori *eradication to prevent cancer in a high-risk region of China. JAMA 2004; 291:187–94.*

IMMUNOPROLIFERATIVE SMALL INTESTINAL DISEASE ASSOCIATED WITH CAMPYLOBACTER JEJUNI

The investigators used molecular approaches (polymerase chain reaction, DNA sequencing, fluorescence in situ hybridization, and immunohistochemical studies) to determine whether there was a bacterial causative agent for immunoproliferative small intestinal disease as standard culture methods previously had failed to do so. The index patient was diagnosed with immunoproliferative small intestinal disease and received 5 months of antibiotic treatment. One year after diagnosis, clinical examination and laboratory results were normal. Analysis of frozen intestinal tissue obtained from the patient prior to her diagnosis revealed the presence of *Campylobacter jejuni*. A follow-up retrospective analysis was then performed, using archival intestinal biopsy specimens obtained 8 to 27 years earlier from 6 patients at a single hospital who had been previously diagnosed (using standard histopathologic and immunologic criteria) with immunoproliferative small intestinal disease. Using molecular analysis techniques, *C. jejuni* was detected in 4 of these 6 patients. The results of this study indicate that *C. jejuni* and immunoproliferative small intestinal disease are associated, and that *C. jejuni* should be added to the list of human pathogens responsible for immunoproliferative states.

Lecuit M, Abachin E, Martin A, et al. Immunoproliferative small intestinal disease associated with Campylobacter jejuni. *N Engl J Med 2004;350:239–48.*

RISK FACTORS FOR EXTRAPULMONARY TUBERCULOSIS

The authors conducted a retrospective, population-based, case-controlled study to discover the associations among demographics, lifestyle variables, and clinical characteristics in the occurrence of extrapulmonary tuberculosis. Patients with tuberculosis (n = 705) were enrolled and represented 98% of the culture-proven cases of tuberculosis diagnosed between 1 January 1996 and 31 December 2000 in Arkansas. Epidemiologic data and clinical information was obtained from the Arkansas Department of Health surveillance records and molecular epidemiologic records, patient interviews, and original clinical records. Patients were classified as having either pulmonary tuberculosis (control group; n = 620) or extrapulmonary tuberculosis (n = 85). Patients with extrapulmonary tuberculosis represent 12.1% of all tuberculosis cases. The 2 most common types of extrapulmonary tuberculosis were bone and/or joint tuberculosis (27.1% of case patients) and cervical lymphatic tuberculosis (17.7%). Women (odds ratio [OR], 1.98 [95% CI, 1.25–3.13]), non-Hispanic blacks (OR, 2.38 [95% CI, 1.42–3.97]), and HIV-positive (OR, 4.93 [95% CI, 1.95–12.46]) patients had a significantly higher risk for developing extrapulmonary tuberculosis than did men, non-Hispanic whites, and HIV-negative patients. Independent risk factors for extrapulmonary tuberculosis are female sex, being non-Hispanic black, and HIV-positive status.

Yang Z, Kong Y, Wilson F, et al. Identification of risk factors for extrapulmonary tuberculosis. Clin Infect Dis 2004;38:199–205.

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