CORRESPONDENCE

Re: Helicobacter pylori and Atrophic Gastritis: Importance of the cagA Status

We appreciate the reply of Dr. Kuipers et al. (1) regarding the findings that we recently communicated to the editor of this Journal (2). We reported the detection of antibodies to the cagA antigen of Helicobacter pylori in 96% of 51 patients having surgery for gastric cancer in Turin.

Dr. Kuipers and colleagues asked for clarification of some of our observations, particularly in regard to the control population. We would therefore like to provide some additional detail.

From August 16 through August 31, 1994, we collected a blood sample from patients admitted to the Department of Emergency Care of our hospital. All patients gave verbal informed consent for participation in this study at the time of physical examination. Of the 619 individuals tested, 353 (57%) were positive for total immunoglobulin G (IgG) antibodies to H. pylori. The blood samples from 555 of these patients were also tested for the presence of antibodies to a recombinant cloned fragment of the cagA protein (3,4) (a gift from A. Covacci, Iris Biocine, Siena, Italy). Of these 555 individuals, 100 (18%) were positive for the presence of antibodies to the cagA protein in the test. A few patients who were negative for total antibodies to H. pylori (IgG anti-Hp) were positive for antibodies to cagA (anti-cagA antibodies); in contrast, anti-cagA antibodies were found in 32% of the individuals who were positive for total IgG anti-Hp. We are not aware of any other study presenting data on the prevalence of cagA positivity from a general population. Indeed, all reported data have originated from patients having symptoms or diseases related to infection by pathogenic strains of H. pylori.

In addition, we tested for antibodies to the cagA antigen in a number of patients who had surgery for cancers other than those of gastric origin (i.e., prostate cancer in men and breast cancer in women; prostate cancer [in Turin] has an incidence almost identical to that of gastric cancer, and breast cancer has a seven times higher incidence than gastric cancer among females). One (14%) of seven male patients and four (25%) of 16 female patients tested positive for anti-cagA antibodies, a striking difference from the 96% positivity found among the patients with gastric cancer.

One further question was raised concerning the accuracy of the method. Each serum sample obtained from the patients diagnosed with cancer was defined as positive for the presence of anti-cagA antibodies only if the enzyme-linked immunosorbent assay (ELISA) was confirmed by two different immunoblot tests—i.e., our in-house test (4) and one commercially available test, either the Helicoblot 2 (Genelabs Diagnostics, Singapore) or the H. pylori IgG Marblot Strip Test System (Mardx, Carlsbad, CA)—showing positivity for at least one band of 116 000, 120 000, or 128 000 daltons of apparent molecular mass. The concordance of our ELISA test with the two different immunoblot tests was 100%.

We believe it would be far more cost-effective to screen patients in Turin, Italy, for the presence of cagA antibodies and cure those testing positive than to wait for a duodenal ulcer or a gastric cancer to appear.

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References


Notes

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Paclitaxel-Induced Severe Neuropathy in Patients With Previous Radiotherapy to the Head and Neck Region

Paclitaxel (Taxol) is an anticancer agent with great clinical efficacy that promotes the assembly of tubulin into microtubules (1). Its spectrum of toxic effects includes myelosuppression (2-4) and myalgia/arthritis, mucositis, and cumulative and predominantly sensory neurotoxicity (5-7). Clinical trials of paclitaxel given at a dose of 175 mg/m² in 3-hour infusions every 3 weeks were initiated in patients with hepatoma and nasopharyngeal carcinoma after approval by the institute review board of the Veterans' General Hospital-Taipei. From January 1994 through January 1996, 26 patients (19 with hepatoma and seven with nasopharyngeal carcinoma) were treated, and 65 courses of paclitaxel were administered. Written informed consent was obtained from all patients. The hepatoma patients had not been treated previously with chemotherapy, and none had received previous radiotherapy. Most of the nasopharyngeal carcinoma patients had received previous radiotherapy (Table 1); five of these patients had received curative radiation to the head and neck region of at least 7000 cGy; the fraction received by the cervical spine was estimated to be under 4500 cGy.

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