CORRESPONDENCE

Industrial Exposure and Colorectal Cancer

The Nomura editorial calls for an international search to identify the specific environmental etiologies for colorectal cancer (1). We applaud this effort, but are surprised that only diet and physical activity are discussed. Both hypotheses may be important etiologic factors, but, as stated in the editorial, neither explains the observed variability in disease incidence rates.

In the United States, the incidence of colorectal cancer is concentrated in the Great Lakes industrial areas and in the industrial northeast (2). Further, the incidence of colorectal cancer is concentrated, within states, in proximity to industrial centers and urbanized areas. In the last 40 years, colon cancer rates have increased remarkably, and the most dramatic rate of increase has been in males. These facts cannot be correlated with dietary variability in this country.

A host of epidemiologic studies have identified a wide array of occupational and industrial-related environmental exposures as risk factors for colorectal cancer (2). Industrial risk factors more closely correlate with geographic and demographic variability of disease. Rather than an emphasis on improved measures of dietary variables as suggested in the editorial, more energy should be spent on the identification of industrial-related toxic substances and methods to reduce exposure to these agents.

Espousing dietary interventions as primary prevention of disease perpetuates the “blame-the-victim” mentality of clinicians and public health officials alike. While dietary interventions are not especially easy or feasible, all industrial-related disease, including colorectal cancer, is eminently preventable if a concerted effort is made. We join the call for an international search for the causative factors of colorectal cancer, but we recommend that the effort take a radical shift toward more promising areas of research and primary prevention.

BRET A. LASHNER*
University of Chicago Medical Center
Chicago, Ill
SAMUEL S. EPSTEIN
University of Illinois
Chicago School of Public Health
Chicago, Ill

References


*Correspondence to: Bret A. Lashner, M.D., Department of Medicine, Box 400, University of Chicago Medical Center, 5841 S. Maryland Ave., Chicago, IL 60637.

Response

Although colorectal cancer is not generally considered an occupational disease (1), Lashner and Epstein are correct in drawing attention to the need to identify industrial-related toxic substances that increase the risk for colorectal cancer in the United States (2). It is likely that multiple factors, including industrial exposures, contribute to the occurrence of this common cancer. They point out in their review (2) that “colorectal carcinogens of industrial origin are likely to account for up to 20% of all incident colorectal cancers.” This suggests that 80% are due to other causes.

Studies of migrants to the United States have consistently shown that migrants coming from low-risk areas experience an increase in their cancer rates which approaches the higher rates that prevail in the host population (3). Different migrant groups to the United States have sustained a more than twofold increase in rates of large bowel cancer (1,3–6). Industrial exposures may have contributed to some of this increase, especially in the midwest and northeast sections of the United States. However, Chinese and Japanese migrants, who have settled mainly in Hawaii and on the west coast, are less likely to have had heavy, toxic industrial exposures that could have contributed significantly to their markedly increased risk for colorectal cancer (4,5,7,8). This suggests that other factors beyond industrial exposures play a major role in this cancer.

ABRAHAM NOMURA*
Japan-Hawaii Cancer Study
Kuakini Medical Center
Honolulu, Hawaii

References


*Correspondence to: Abraham Nomura, M.D., Japan-Hawaii Cancer Study, Kuakini Medical Center, 347 N. Kuakini St., Honolulu, HI 96817.