May

In our guest editorial, Wynder and Reddy (American Health Foundation, New York, New York) review investigations on cancer of the colon and the leads applicable to research on the disease in man.

To determine if any animal system can be related to man, the composition of bile acids, the overall bile flow, bacterial flora, constituents of the feces, and the ability of the animals to adjust to different diets must be considered. Studies should evaluate whether lower animal species can mimic the human system as it relates to the etiology of colon cancer.

Wellings and Jenson (University of California, Davis, California) analyze 60 human breasts by a quantitative, three-dimensional, subgross method which permits identification and counts of independent, solitary foci of hyperplasia, dysplasia, and neoplasia. Since the smallest and earliest foci of human breast carcinoma in situ are localized in solitary, terminal, ductal-lobular units, the authors hypothesize that the intralobular terminal duct and its attached ductules become distended with cancer cells; this distension progressively enlarges and unfolds the ductules, with coalescence of the ductular lumens. The process may explain the conversion of lobular structures into larger ovoid and circular profiles.

The May issue includes three statistical studies:

1. In 1,633 histologically confirmed cases of Hodgkin's disease among Connecticut residents during 1940-69, Krysci and associates (National Cancer Institute, Bethesda, Maryland) found no evidence for clustering of the disease.

2. Akazaki and Stemmerman (Aichi Cancer Center Research Institute, Nagoya, Japan, and Kuakini Hospital, Honolulu, Hawaii) observed no difference in the age-adjusted prevalence of latent prostatic carcinoma among native Japanese and Japanese in Hawaii. But in Hawaiian Japanese, invasive cancer of the prostate is more common than in native Japanese. Environmental factors are suggested as the cause for this difference.

3. Frequency ratios of 694 histologically diagnosed cancers in 693 United States Indians are tabulated according to primary site and sex by Dunham et al. (National Cancer Institute, Bethesda, Maryland), with application of an age-correction factor to validate comparison of data from Indians with those of United States whites. Cancers of the gallbladder, urinary tract, uterus, and salivary glands are more prevalent in Indians. Lung and urinary bladder tumors are comparatively infrequent in Indians.

June

Shabad (Institute of Experimental and Clinical Oncology of the USSR, Academy of Medical Sciences, Moscow) editorializes on the concept of precancerous morphologic lesions. Malignant tumors are the last link of a long chain of
pathologic events which can be called "precancerous." Shabad proposes the term "pretumorous" for the early changes preceding the benign neoplasms and "precancerous" for those immediately transforming to malignancy. Lesions that are always transformed are "obligate precancer" and those not always becoming malignant are "facultative precancer." Each cancer has its own precancer, but not every precancer develops into cancer.

The origin of malignancies is often multicentric; thus precancerous lesions are usually multiple. From laboratory investigations, two types of precancerous lesions can be distinguished: (1) those of covering epithelium; and (2) those of secretory epithelium.

In the opinion of the author, all forms of precancerous change can be divided into two groups: (1) those arising in the area of the first application of carcinogens in the tissues and organs directly exposed to the influence of environmental agents; (2) those originating far from these areas in the tissues and organs which are shielded from the environmental agents. The main difference between the two groups is the inflammation. Cancer and inflammation are different pathologic processes and there is sufficient evidence against a constant precancerous significance of the inflammation.

Morphologically, precancer may be defined as microscopic, multicentric, often multiple foci of noninflammatory atypical growth of undifferentiated epithelium or of mesenchymal tissue with a tendency to invasion, but without destruction of the surrounding tissue.

In the development of all malignant tumors, four stages can be distinguished: irregular, diffuse hyperplasia; nodular focal proliferation; benign tissue; malignant tumors.

Precancer is a dynamic concept and differs from such concepts as "latent cancer" and "carcinoma in situ." Dr. Shabad disagrees with those terms because of their intrinsic contradiction. If the cancer is "in situ" or "latent," without infiltrative and destructive growth, it is not yet a true cancer. If it is a cancer, it cannot be latent or in situ. The editorial concludes: "The detection and cure of precancer are the best ways to prevent the development of cancer."

The June issue contains the symposium "An International Survey of the Distribution of Lymphoreticular Tumors," the Proceedings of a Conference at the Fogarty International Center, Bethesda, Maryland, June 18-21, 1971. The co-editors are Correa and O'Conor (National Cancer Institute).

Data are presented on the relative frequency of lymphomas as collected by the Geographic Pathology Committee of the International Union Against Cancer. Included are reports on lymphoreticular tumors in Egypt, Nigeria, Argentina, Brazil, Costa Rica, Peru, Israel, Singapore, Norway and other European countries, and New Guinea.