May

Five-year survival rates of 540 women with carcinoma of the cervix and 186 with carcinoma of the corpus uteri, were appraised according to modal DNA values of the tumors, by Atkin (Department of Cancer Research, Mt. Vernon Hospital, Northwood, Middlesex, England). Prognosis for squamous cell cervical carcinomas is favorable if they are near-triploid or hypotetraploid. However, endometrial carcinomas with a near-diploid mode have a more favorable prognosis than do tumors having high modes at this site.

The prognostic difference between the two ploidy groups has no relationship to degree of differentiation or clinical stage of the tumors. Atkin suggests that high-ploidy Stage III carcinomas are more radiosensitive, metastasize less readily or may be associated with a surrounding induration that actually represents an inflammatory reaction rather than parametrial invasion.

Gibson et al. (University of Minnesota, Duluth, Minnesota) studied the possible biologic links between leukemia and precursor diseases by comparing the medical histories of 605 adult males who had leukemia with those of 668 male population controls. These patients were part of the Tri-State Leukemia Survey conducted between 1959 and 1962 in upstate New York and the metropolitan areas of Baltimore, Maryland and Minneapolis-St. Paul, Minnesota. The controls were randomly selected from households within the same geographic area as the patients. Of the 30 diseases studied, seven showed an excess among the leukemia patients: infectious hepatitis, eczema, psoriasis, diabetes, arthritis, rheumatism, heart disease, ankylosing spondylitis.

These findings are consistent with previous evidence from laboratory and clinical studies. Gibson and co-workers believe that their data are compatible with the interpretation that some leukemia patients show a different immune mechanism than do the population controls, and therefore their reactions to different infectious agents may vary from those of the controls.

June

The clinical manifestations, diagnostic procedures and plan of therapy for pancreatic carcinoma are reviewed in a guest editorial by Macdonald (Vincent T. Lombardi Cancer Research Center, Washington, D.C.). The incidence of this type of neoplasm has increased during the past three decades, particularly in black males, and it now ranks as the fourth most common cause of cancer deaths. Evidence indicates that chemical carcinogens are causative agents; cigarette smoking and a high-cholesterol diet also have a positive correlation with the occurrence of pancreatic cancer.

Rapid progress is being made with relatively noninvasive
techniques for the diagnosis of pancreatic carcinoma. New procedures include ultrasonography, $\gamma$Se-methionine scanning, computerized axial tomography, endoscopic cholangiopancreatography, pancreatic angiography, peritoneoscopy and detection of an oncofetal antigen in the sera of patients and needle biopsies.

A combined modality approach is most effective in the management of most patients with pancreatic cancer, but surgery is still considered the only modality for its cure. However, the morbidity and mortality rates remain high. A combination of megavoltage radiotherapy and chemotherapy is being evaluated in several treatment centers. Developments in treatment indicate that all the manifestations of pancreatic cancer can be handled with some degree of effectiveness.

Graham (Heyman Laboratory, Kennmore, New York and Cambridge, Massachusetts) and Graham (University of California Medical School, San Francisco, California) report the accuracy and application of a prescreening machine called a Sedex for cancer of the uterus. During a 10-year period, vaginal aspirates from 102,000 women were processed. They found that the accuracy of this technique was about the same as that of the direct smear method. The Sedex measures the slower sedimentation rate of cells exfoliated from the female genital tract when cancer is present. As the cells in a test tube fall, the machine records the increase in light transmission through them. Such mechanical examination of vaginal and cervical cells does not diagnose cancer; rather, it identifies normal specimens free of cancer or infections, thus providing a rapid method for screening large numbers of women. This reduces the proportion of specimens requiring microscopic examination, considerably lessening the burden of laboratory examination of great numbers of negative specimens.

Leklem and Brown (University of Wisconsin Center for Health Sciences, Madison, Wisconsin) studied the metabolism of L-tryptophan in a family in which two members had a history of bladder cancer. Four complete 24-hour urine specimens were collected on consecutive days from five of six siblings. They had been given L-tryptophan with their breakfasts on days two and four and 100 mg. pyridoxine hydrochloride on days three and four. Three of the five family members had abnormal tryptophan metabolism, as measured by the high excretion levels of kynurenine and 3-hydroxykynurenine; none had a vitamin $B_6$ deficiency.

These findings suggest that kynureninase activity may be defective in these patients and that abnormal tryptophan metabolism may be partly responsible for the bladder cancers. Further studies of families with bladder cancers may reveal that this neoplastic disease is a congenital disorder of tryptophan metabolism.