ovarian adenocarcinoma and the highest was 200 mg per gm. for a rat hepatoma induced by p-dimethylaminoazobenzene, most of the values being in the range from 20 to 100 mg per gm., of fresh tissue. These values are of the same order of magnitude as those for noncancerous brain, lung, muscle, and spleen; much below those for liver and kidney; and slightly below those for heart. None of the tumors studied can therefore be classified as a vitamin-rich tissue, and it is indicated that probably tumors do not particularly require nor are associated with a high vitamin content.—Authors' abstract.


Analyses for pantothenic acid were made on the following types of neoplasms: mouse—transplanted adenocarcinomas and methylcholanthrene-induced sarcomas; rat—transplanted carcinomas and hepatomas induced by p-dimethylaminoazobenzene, human carcinomas, melanomas, and sarcomas. The pantothenic acid content of a number of normal tissues for the mouse, rat, and man is included in the report. It is shown that a decided drop in pantothenic acid content occurs in the transformation of rat liver to hepatoma by feeding p-dimethylaminoazobenzene. Almost all the human and rat tumors contained about the same amount of pantothenic acid as did noncancerous spleen, lung, and skeletal muscle, which are very much poorer in this factor than liver, heart, kidney, and brain. The mouse tumors studied were somewhat richer, being on about the same level as the brain.

These results indicate that cancerous tissues probably have no greater need for pantothenic acid than have noncancerous tissues, but much more work is necessary before final conclusions can be drawn.—Authors' abstract.


Rats fed polished rice developed areas of epithelial hyperplasia in the forestomach and diffuse hemorrhage in the glandular portion in about 60 days.

A deficient diet combined with kieselguhr produced more definite changes than could be elicited by polished rice alone.

Rats fed unpolished rice with or without carrot did not develop any abnormality in the stomach. No hyperplasia and no hemorrhage could be detected with the naked eye.—Author's summary.

Clinical and Pathological Reports


This review discusses the following aspects of the cancer problem: carcinogenic substances, intrinsic factors (genetic and extrachromosomal), endocrine factors, cancer prophylaxis, surgical treatment, radiotherapy, neutron therapy, hypothermia, adjunct treatment, metastasis, and cancer immunity.—J. L. M.

LEUKEMIA


When methylcholanthrene, 3,4-benzpyrene, and 1,2,5,6-dibenzanthracene, dissolved in benzene, were applied to the skin, their efficiency in hastening the appearance of leukemia in the high leukemia F strain of mice bore a direct relation to the potency of the carcinogens in inducing other tumors in these mice. Both methylcholanthrene and benzpyrene were effective in shortening the preleukemic latent period, methylcholanthrene being the more active. Dibenzanthracene did not decrease the preleukemic latent period, although this carcinogen does induce skin tumors. The latent period (between the institution of treatment and the appearance of leukemia) was the same whether treatment was begun at birth or at 35 days of age. The effect on the appearance of leukemia could be attributed to the action of the carcinogens and not to the vehicle, benzene. Those treated mice that did not develop skin tumors readily were more susceptible to the induction of leukemia than were those that developed skin papillomas and carcinomas relatively early. The intravenous injection of 0.2 mgm. methylcholanthrene at 6 weeks of age did not influence the age at which leukemia appeared in 13 strain F mice, but 3 of 6 female breeders developed mammary cancer. The incidence of mammary cancer in untreated female breeders of the F strain is less than 1%.—Authors' abstract.

TISSUE CULTURE


A pure culture of Rous sarcoma consists of two cell forms—spindle cells and basophilic round cells. Both are variants of one cell type. The basophilic round cell arises from a fibrocyte-like cell and may also turn into the latter. It may also become a source of large ameboid cell forms. The polymorphism of the sarcoma cell is due to the changes which it induces in the physical state of the medium. Both cell forms—the spindle and the basophilic round cell—are considered to be carriers of the Rous agent.—Authors' summary.

PROSTATE


Of 352 patients 30 (10%) lived more than 5 years, and 15% were apparently free from carcinoma for 10 or more years. Deep x-ray therapy has been of little use in controlling the disease, but 2 patients showed no carcinoma on
postmortem examination 6 and 7 years after deep radiation.—H. G. W.


While this type of growth is considered rare, a moderate number of cases of so-called primary lymphosarcoma of the prostate gland have been reported. The actual nature of these tumors has been seriously questioned, however, by several writers who believe prostatic neoplasms of this type to be highly anaplastic carcinomas. In the case presented here, multiple postmortem sections proved the growth to be a lymphosarcoma. There were no metastases to bone or lungs. This is the fourth reported instance in which prostatic lymphosarcoma has received extensive high voltage irradiation without apparent benefit.—R. C. R.


Early carcinoma of the prostate has been said and can be cured by Young's radical operation, and all completely removable tumors should be given the benefit of such operative treatment.—H. G. W.

Urinary System—Male and Female


From 40 specimens presenting a margin of at least 1 cm. or more of tissue apparently free from cancer, sections were examined. They disclosed a high frequency of submucous extension of the growth. A second carcinoma in situ was also found not infrequently. It is concluded that if a segment of the bladder is to be removed, the edges of the resected tissue should be examined microscopically before the operation is completed in order to determine whether resection has been wide enough. Total cystectomy without opening of the bladder is recommended for treatment of carcinomas of grades 3 and 4, and possibly for grade 2.—H. G. W.


A case report.—H. G. W.


The author reports on one case of his own, and has collected to cases from colleagues, in only one of which there was a calculus.—H. G. W.


A case is reported.—H. G. W.


A case of hemangioma of the bladder is added to the 36 already on record in the literature.—H. G. W.


A clinical consideration of the problems of diagnosis.—H. G. W.


A case of cavernous hemangioma of the bladder in a male of 15 is reported, and the 41 cases in the literature are reviewed.—H. G. W.


A case report.—H. G. W.

Intrathoracic Tumors—Lungs—Pleura


This article reviews the present day ideas on the etiology, pathology, diagnosis, and treatment of lung tumors. Only the benign tumors so located that they can be removed and the occasional removable carcinomas offer favorable prognosis.—J. J. M.


So frequent has carcinoma of the lung become that the suggestion is made that mass examination of the male population over 40 by means of the miniature roentgen film technic be employed to detect it. Pulmonary symptoms in a male over 40 years of age should be considered as resulting from carcinoma of the lung until proved otherwise.—H. G. W.


General clinical consideration, based on 35 cases.—H. G. W.

Gastrointestinal Tract


About 283 cases of carcinoids of the small bowel have been reported to date. Those reported since 1930 are tabulated, including two cases reported by the author. Of the latter tumors, one metastasized to a mesenteric lymph node; the other did not metastasize but was large and produced intestinal obstruction.—H. G. W.


The postoperative results after anterior resection in a series of cases of carcinoma of the rectosigmoid compare well with the results of abdominoperineal resection. Fifteen instances of anterior and abdominoperineal resection are reported in a series of 24 cases of rectosigmoid carcinoma. Eight of the patients had anterior resection
and that the abdomino-peritoneal operation. It is suggested that anterior resection be employed more extensively in favorable cases. An operative technic is presented.—R. C. R.


Two examples of the diagnosis of cancer by means of the gastroscope.—R. C. R.


A case report with review of the literature.—H. G. W.


A case report with a review of the literature.—H. G. W.


The author reviews those complications of duodenal cancer which require surgical treatment and those which respond best to medical treatment. In the consideration of the reduction of gastric secretion by gastric resection, the following two questions are discussed: (1) How much should the gastric secretion and gastric acidity be quantitatively reduced? (2) How much of the stomach should be removed to provide the desired reduction?—J. L. M.


A case is presented of myxoma of the appendicular mesentery, with a 3 year cure after surgical treatment.—H. G. W.


Report of two cases of cancer of the stomach with marked leukocytosis. No bone metastases were found at autopsy.—H. G. W.


Ten per cent of the author's series of gastric ulcers were malignant. It has been found that ulcerating carcinoma may react favorably to nonsurgical management and may be similar in general characteristics to benign ulcer. Thus the gastroscope is of value in the examination of ulcerations of the gastric mucosa. The importance of careful study of the entire picture from both the clinical and laboratory point of view is stressed. Proper surgical treatment directed toward removal of the gastric ulcer and a large part of the stomach has afforded good results.—R. C. R.


A consideration of the diagnostic aspects, with the recommendation that whenever the suspicion of cancer of the stomach arises every possible facility for diagnosis be employed, and that surgical exploration be carried out whenever the suspicion persists.—H. G. W.

PANCREAS


In 3,500 necropsies carcinoma of the pancreas was encountered 26 times, and in 8 instances (6 times in men) the lesion was limited to the body and tail of the organ. Carcinoma of the body and tail of the pancreas deserves more consideration in differential diagnosis. It presents a suggestive clinical picture with upper abdominal pain, weight loss, absence of jaundice, often the presence of a mass, and confusing symptoms suggesting involvement of other intra-abdominal viscera.—H. G. W.


Seven cases of tumor of the pancreas are presented. Five tumors were definitely sarcomas, primary, infiltrative, and secondary. The two remaining tumors were diagnosed as carcinomas at autopsy, although the metastases which had been biopsied one to two years before death had been diagnosed as reticul cell sarcomas. These metastatic tumors were thought to have originated in the reticulo-endothelial structure of the gland, or in the pancreatic lymph nodes, and to have invaded the pancreas before making their appearance elsewhere.—J. L. M.

THYROID


So called lateral aberrant thyroid tumors are nearly always metastatic extensions to the deep cervical lymph nodes from a primary carcinoma in the homolateral lobe of the thyroid gland, 74% being papillary carcinomas. Sixty per cent are associated with thyroid tumors of identical structure. The treatment should be radical block dissection of the neck and removal of the corresponding lobe whether or not a tumor is obvious at the time of operation.—H. G. W.


The reported incidence of malignant lesions of the thyroid gland exhibits a progressive increase. The fact that a large proportion of these lesions develop on the basis of a preexisting benign goiter is of importance in the prevention and treatment of malignant lesions of the thyroid gland. The prevention of endemic goiter should definitely reduce the incidence of carcinoma of the thyroid gland.

The following subjects are discussed: relationship between hyperthyroidism and malignant tumors of the thyroid gland, criteria of malignancy, classification of malignant tumors, metastasis, symptoms, operability, mortality from the disease, preoperative and postoperative care of the patient, and results of treatment.—J. L. M.
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