not confirmed histologically. The author believes the changed color pattern resulted from endocrine dysfunction, which in turn was caused by the presence of a neoplasm. Although the ovary was tumorous, it was thought unlikely that the tumor, on the assumption that it was lymphosarcoma, was responsible for the color change since avian ovarian lymphocytes are very common.—E. E. S.

Clinical and Pathological Reports

**Diagnosis—General**


The use of escharotics, in the form of zinc chloride, in the treatment of cancer has been revived recently by Mohs. The present paper is based on a study of 39 cases previously treated by escharotics. It is concluded that the treatment of cancer by these agents, as generally practiced today, is an unsatisfactory, ineffective, and dangerous method. Except in a few instances, it accomplishes nothing that cannot be equally well or better done by radiation or surgery. In certain cases, it offers a means of local attack when cancer must be eradicated with a minimum sacrifice of normal tissue, and when ordinary methods of treatment are not applicable. In any case, zinc chloride should not be used without the safeguards developed by Mohs. The paper includes case histories and photographs illustrating the damage that can be caused by the injudicious use of escharotics.—A. C.

**Radiation—Diagnosis and Therapy**


A case of cystic tumor of a bone of the little finger, successfully treated, is discussed. It is of interest because of the location of the lesion, the length of time it had been present (30 years), its response to irradiation, and the control of pain by nerve section.—A. C.


The author reviews some of the previously held opinions on surgical and roentgenologic treatment of laryngeal carcinoma and discusses the validity of the basis for choice between the two procedures. He believes that the decision as to the radioirradiability of a particular tumor should not be based on histologic structure but on the degree of invasion that can be established by the mobility of the tumor and the surrounding structures. The majority of early carcinomas are thought to be operable. The author gives details of 3 patients with well advanced laryngeal cancer without recurrence, 2 years, almost 2 years, and 4 months, respectively, after irradiation therapy.—E. E. S.


The limitations of both local and spray irradiation of patients with leukemia are presented. In chronic leukemia there is a marked elevation of blood phosphorus, which is increased by irradiation. Leukemic tissues pick up radioactive phosphorus in greater concentration than do normal tissues. Since 75% of administered P^32 has decayed by the end of 3 weeks, there is no danger of unduly prolonged effects. P^32 may be given orally, intravenously, or by other parenteral routes; the oral route is preferred. Dosage is discussed in detail. Eleven patients with chronic myelogenous leukemia were treated by this method, with improvement in 7 of the 9 who had been observed for some time. It is concluded from observation of 11 patients with chronic lymphatic leukemia that this type responds less favorably. There were no real beneficial effects in 2 cases of acute lymphatic leukemia in adults and in 11 in children. The lymph nodes and spleen had diminished in size in a girl with eosinophilic leukemia.—E. E. S.


Treatment offers more hope in carcinoma of the body of the uterus, than in any other internal malignant neoplasm. Here, as in any form of cancer, the earliest possible diagnosis is essential. In early localized lesions, with patients in good general health, major surgical operation followed by irradiation is the treatment of choice. In advanced lesions decided value, palliation and occasional cure result from well-planned irradiation therapy.—J. L. M.


Results of the treatment of 142 cases of carcinoma of the cervix seen over a 10 year period are reported. Only those treated by combined x-ray and radium and those with a positive biopsy are included in the report. The Schmitz grouping of cases was used in preference to the League of Nations method as being more logical in its definitions. Intracavitary radium was first administered in doses of from 2,400 to 3,600 mgm.-hr, and followed, after the reaction had subsided, by about the same dose applied directly to the cervix. Following radium application, deep roentgen therapy was given with 200 kv. to a total of 1,800-2,400 r (measured in air) to each of 4 ports. Recurrences were treated with further roentgen therapy except in cases where the initial dose was large.

The results show a 3 year survival rate of 37%, and a 5 year survival of 24% when all grades of tumor are classed together. Among patients classified in groups I and IV the 5 year survival rate was 100% and 10% respectively.—J. F.

Ureteral obstruction is the most frequent cause of death in patients suffering from stage 3 or 4 cervical cancer. The means at present employed for alleviating this condition have been disappointing and other methods must be considered.—M. E. H.


The author reviews the diagnosis and treatment of pulmonary neoplasm and presents the results obtained at the Massachusetts General Hospital for the 10 year period ending April, 1940.

The diagnosis is essentially a radiological problem with fluoroscopy, radiography with routine over-exposed and Bucky studies of the lungs all playing an important part. Signs of partial or complete bronchial obstruction, abnormal movements of the diaphragm and mediastinal shift are noted as important diagnostic findings. Thoracic exploration and bronchoscopy are stressed as important aids in differentiating between a benign and malignant tumor and in grading the latter.

Three hundred and sixty-three tumors were diagnosed, 155 proved microscopically. Fifty-eight per cent were epidermoid carcinoma; 14.5%, adenocarcinoma; 8.4%, undifferentiated; and 18.7% were "oat-cell" carcinoma.

Treatment is based on the findings mentioned above. Benign and localized malignant lesions are operable and should be so treated, while considerable palliation with prolongation of life can be obtained in some cases by the use of deep x-ray therapy. Five of 27 patients subjected to surgery are living and apparently free of disease, while no 5 year cures were obtained by the use of deep x-ray therapy.—J. F.


The authors report their experience with the Phillips tube and describe the first 100 consecutive cases treated with it. The tube is of value in treating superficial circumscribed lesions on the surface and in the body cavities.

The advantages and limitations of the method are discussed. The authors present depth-dose tables for various distances and filters and the method of treatment of many cases. The results are comparable to those obtained with higher voltages.—J. F.


In this review the application of radiation therapy to skin neoplasms and to carcinomas of various organs is discussed.—J. L. M.


Following an extensive review of the literature the authors present 25 cases of pituitary tumor that received x-irradiation and were followed for 1 year or more. Nine cases treated but followed for less than 1 year and 6 that were not treated are not included in the report. Two patients were less than 12 years of age. Seventy-six and six tenths per cent of the tumors were of chromophobe type, 21.9% chromophile, and 2.4% basophilic. Seven and three tenths per cent were found at operation to be cystic. The patients were given a tumor dose of 2,000-3,200 r with 200 kv. Results showed that in 56% of the patients improvement was maintained, in 20% the disease was arrested, and in 24% it continued to progress.—J. F.


The author presents a review of 63 cases of cancer of the nasopharynx treated by external irradiation between 1926 and 1938. Of 44 patients who had been treated more than 5 years previously 13 were free of disease. In this group there were 6 cases of lymphoepithelioma, 5 lymphosarcomas, 1 undifferentiated, and 1 slightly differentiated, epithelioma. Dosage in those patients who were free of disease after 5 years was only slightly more than in those who were not. The author concludes that roentgen therapy is the method of choice in carcinoma of the nasopharynx.—J. F.


The author compares the use of radon seeds with radium needles, preferring the latter because they may be more accurately placed. Details of the technic are given.—J. F.


The authors present the results of the treatment of 270 cases of Hodgkin's disease, lymphosarcoma, lymphatic leukemia, myelogenous leukemia, polycythemia vera, mycosis fungoides, multiple myeloma and numerous cases of carcinoma and sarcoma with generalized metastases. Treatment was administered with the Houbtsein unit. This operates at 185 kv., 1 ma., 5.5 mm. Cu equivalent filter, at a distance of 3 meters. The output varies from 1.5 to 0.37 r per hour. The patients are treated in hospital rooms specially designed for the purpose so that treatment may continue throughout the day with only necessary interruptions.

The results show that total body irradiation produces the greatest palliation in the group of lymphomatoid diseases, and therefore its usefulness is largely restricted to this group of radiosensitive tumors. Polycythemia vera responded well; mycosis fungoides and multiple myeloma showed less striking response; the cases of generalized carcinoma or sarcoma showed no appreciable improvement.

The authors feel that total body irradiation produces the greatest benefit when combined with local high voltage roentgen therapy to enlarged organs (lymph nodes, spleen). It has resulted in longer intervals of freedom from disease in numerous cases and in better survival rates following treatment.—J. F.

**The Radiation Treatment of Cerebellar Medulloblastoma. Report of Thirty-One Cases.** **Pendergrass,

Of 115 cancers of the pharynx and esophagus seen at the Royal Cancer Hospital from 1936 to 1939, 66 were treated with 400 kv. x-rays. Of this group, 32 received tumor doses of at least 5,000 r. Only 3 patients are still alive. A detailed account is given of the method of calculating the tumor dose.—E. H. Q.


Ewing’s tumor shows great variation in roentgenologic manifestation as well as in histologic picture. For this reason a definite diagnosis can rarely be made from the x-ray examination alone. In planning x-ray therapy it must be remembered that the disease may spread extensively through the soft tissue of the marrow cavity, without producing visible bone destruction. Treatment by a combination of surgery and radiation is recommended.—E. H. Q.


Ten cases are reported of rib fracture following treatment with radium needles for cancer of the breast. These patients are all free of clinical evidence of local or metastatic disease. The fractures usually appeared in less than 2 years after treatment, in one case as early as 11 months. In the differential diagnosis, traumatic fracture and metastasis must be ruled out. The former can be done on the basis of a careful history, the latter on the x-ray appearance of the ends of the fragments.—E. H. Q.

Nervous System


The authors describe the clinical course and pathological features of 4 cases of oligodendroglioma of the brain in which dissemination of tumor occurred throughout the cerebrospinal fluid pathways. In 3 instances the primary tumor abutted on the ependymal surface of the ventricles and metastases were found in the periventricular walls as well as in the subarachnoid space of the brain and spinal cord. In the 4th case, the site of origin of the tumor could not be determined with certainty and the ependyma was not involved. Histologically, diffuse mucinous degeneration of the stroma is frequently seen in the oligodendroglioma and is of aid in distinguishing this tumor from other metastasizing gliomas such as the medulloblastoma and spongioblastoma. In agreement with the experience of others, the authors found deep x-ray therapy to be of no benefit in their cases of oligodendroglioma.—E. E. S.

The quality and intensity of headache caused by brain tumor are described. Data are presented to show that lesions of remotely separated structures within the skull may cause headache in identical areas. It was found that the pain was unrelated to increased intracranial pressure and could often be shown to be due to traction on local pain sensitive structures. When intracranial pressure was increased in addition, there was both local and distant traction through displacement of the brain or by internal hydrocephalus. Usually failure to develop headache was seen only with the more slowly growing tumors. Pain is an asset as a localizing sign when it results from local traction. It sometimes is the initial symptom of a tumor. In the patients described pain in the back of head and neck was never absent in the presence of an infratentorial lesion; when the pain was solely frontal, it was usually due to a supratentorial tumor. Pain is more often on the side of the lesion. A number of generalizations of aid in diagnosis are presented. E. E. S.


This is a review of 130 verified acoustic tumors treated from 1930 to 1939, with an analysis of end-results, particularly emphasizing mortality statistics, fate of the facial nerve, and earning capacity of the surviving patients. Complete extirpation of the tumor is favored rather than subtotal extirpation or intracapsular enucleation. In the group treated by the first method during the last 2 years covered by the report, the mortality was 11.1%, the facial nerve was preserved in 65% of the patients, and earning power was complete or only slightly diminished in 75.7%. E. A. L.


In 2 patients malignant degeneration of neurofibromas occurred, and its presence was signified by pain. Early amputation is the procedure of choice. W. A. B.

Breast


A brief discussion of the operative results in 363 cases of carcinoma of the breast.—L. M.


Report of a case.—W. A. B.


Edwards reports the following in a letter to the Editor. A typical case of scirrhous carcinoma (in a married woman aged 62) was treated by radical mastectomy. The pathological report was: "Carcinoma of breast; growth is a spheroidal-celled carcinoma; there is one large deposit of similar growth in the axilla." Removal of the axillary deposit proved incomplete, and 5 months later there was also extensive recurrence in the skin, scapular region, and posterior triangle. It was decided to administer stilboestrol. Under this treatment, the patient's health gradually improved, and the tumors slowly disappeared, until at the end of a further 3 months regression appeared to be complete. At this time the patient had gained 16 lbs. in weight, and the hemoglobin value was estimated to be 95% (as against 76% initially). The dosage of stilboestrol was 0.5 mgm. daily for 3 periods of 24 days.—A. H.


In 661 patients with cancer of the breast, 160 showed local recurrence after radical mastectomy. These patients had no x-ray therapy to the operative field. These lesions may arise by direct invasion from the primary tumor, by lymphatic permeation, by lymphatic or blood emboli.

Among 168 patients, 81 had skeletal metastases. Of these, 13 showed no other metastases, while the remainder had growths in other regions. Most of the skeletal metastases were multiple.

Of 131 patients coming to autopsy, 117 showed involvement of lungs, pleura, or mediastinal lymph nodes. The majority of these also had involvement in one or more abdominal viscera.

Protocols of 369 patients were reviewed for evidence of metastases to the central nervous system—such evidence was recorded for 89. The metastases were verified for the 40 patients examined post mortem.

Radiation therapy is shown to be useful in controlling skin metastases and in producing palliation of symptoms in skeletal growths and in those of the central nervous system. It is of little value in other metastases. Castration is of value especially in bone lesions, although improvement in other involved regions may also occur.—E. H. Q.


Some of the common forms of breast tumors are listed, and brief mention is made of the problem of their differential diagnosis.—L. M.


Differential cell counts, made on the anterior pituitary lobes of 12 women with mammary carcinoma and of 15 women with tumors of other types, revealed no significant differences in the percentages of chromophobes, acidophils, or basophils in the 2 groups. Although recognizing the possibility that the human pituitary gland may not respond to estrogens in the same way as does that of rodents, the authors consider that there was no evidence of hyperestrogen effects in the 12 breast tumor cases. In a thirteenth case with mammary carcinoma, however, an adenoma of chromophobe cell type was
found, which might possibly be considered as evidence for a hyperestrogen effect.—J. G. K.

FEMALE GENITAL TRACT


The tumor occurred in a 12 year old girl. Although it grew slowly over a period of 5 to 6 months, histologic examination after resection revealed the presence of malignant tissue. The child died 2 months later after having developed signs of metastatic growths in the lungs and pleura.—E. S.


The author reviews 744 cases of cancer of the female genital organs, seen at the University Hospital, Iowa City, from July, 1926, to July, 1936.

Of these 65% were carcinoma of the cervix; 16%, of the body of the uterus; 11%, of the ovary; 3%, of the vulva; 2%, of the vagina; 1%, sarcoma of the uterus; 1%, chorionepithelioma; and 1%, carcinoma of the tube. Each of these types is discussed briefly in regard to symptoms, diagnosis, and treatment.—J. L. M.


Adenocarcinoma of the cervix is a relatively in- frequent tumor. From 4 to 7% of all malignant growths arising in the cervix are placed in this group by various investigators. A survey of the patients presenting themselves at the State Institute for treatment of cervical cancer shows that the ratio of adenocarcinoma to squamous-cell carcinoma was 1 to 26. Sixty-three patients with cervical adenocarcinoma were selected for study. The duration of the disease is closely allied with the histologic group to which the tumor belongs. While the clinical grouping is the paramount factor in considering the prognosis, the histologic grade had a definite bearing on the end result. In this series women who had not borne children were found to have adenocarcinoma of the cervix in a higher proportion than is usually reported. Thirty-eight per cent survived for 5 years under treatment that consisted mainly of radiation therapy.—J. L. M.


Modern treatment of this condition is expectant, surgical, or radiologic, and a correct decision as to the type of treatment for the particular case depends on an intelligent appreciation of the pathological condition and the clinical behavior of these tumors. The author discusses the circumstances in which each of these treatments should be used.—J. L. M.


A review from the pathological standpoint of 35 cases of leiomyosarcoma.—W. A. B.

MALE GENITAL TRACT


Sarcoma of the prostate is briefly reviewed, and 3 cases are reported.—J. L. M.


An instance of rapidly fatal prostatic carcinoma with metastases in a 29 year old male is reported.—V. F. M.


Four of six patients with prostatic carcinoma were benefited by castration with or without estrogenic therapy. Insufficient criteria have been developed to predict which cases will respond to castration and estrogenic therapy, although the metastatic ones seem to do best.—J. L. M.


A case of a lymphangioma with leiomyomatous features in the epididymis is reported. The authors discount trauma as a causative factor. Both lymphangiomas and leiomyomas have rarely been reported, but one author (Halpert) has previously recorded a mixed leiomyoma and lymphangiomata like the one here described.—V. F. M.

URINARY SYSTEM—MALE AND FEMALE


Exstrophy of the bladder and vesical adenocarcinoma are discussed at length. Both conditions are rare and concomitant occurrence is extremely so. Twenty-seven instances, including the one here reported, may be found in the literature. Adenocarcinoma of the bladder arises from cystitis cystica and glandularis which in turn have arisen from cell nests of Brunn in association with chronic irritation. Adenocarcinoma of the exstrophic bladder does not arise from misplaced embryological tissue, except in the case of some tumors in the region of the urothel.—V. F. M.


Wilms' tumor, a highly malignant renal neoplasm in children, must be diagnosed and treated early if the patient is to have the chance of a cure. Intermediate transperitoneal nephrectomy with postoperative irradiation, or preoperative and postoperative irradiation with nephrectomy, are the methods of procedure.

Four cases of Wilms' tumor are presented with one apparent cure 1½ years after operation.—J. L. M.


This is a report of 54 instances of clinically unrecognized, or "silent," renal tumors taken from the autopsy
files of the Ancker Hospital, St. Paul, Minnesota. The lesions varied from 1 cm. in diameter to large masses. Seventeen had metastasized, but only one tumor that metastasized was less than 8 cm. in diameter. None of the patients had any of the classical symptom triad: hematuria, pain, and mass. Forty-four had not even one of these indications.—V. F. M.


Chorionepithelioma rarely occurs in the male, and when it does, with very few exceptions it arises in the testis. It is a highly malignant growth, and the prognosis is very grave, few patients having lived over 2 years. There are only 10 cases of extratesticular chorionepithelioma recorded in the literature. To these the authors add another. This represents the fourth case from this hospital and the third in which the bladder was probably the primary focus. In all 4 instances the biologic tests for gonadotrophic hormone were positive. In the case being reported, gynecomastia and pulmonary metastases were present. Bilateral orchidectomy and roentgen-ray therapy had no beneficial effect on the tumor. Serial microscopic sections of both testicles failed to reveal any abnormality, scars, or primary focus in the testicle.—A. Cnl.


A case of malignant nephroma is reported with a brief general discussion of tumors of the kidney.—A. C.


This is a well illustrated report of a single case of Wilms' tumor in a 49 year old female.—V. F. M.

Oral Cavity and Upper Respiratory Tract


Gingivitis of pregnancy is regarded as probably due to a combination of factors, the most important of which are vitamin C deficiency, hormonal alterations, and trauma. Of the various forms, the so called "pregnancy gum-tumours" (epulides gravidarum), are of special interest; two new cases are described. These tumors are usually single, often pedunculated, grow to a size of 1 cm. or more in diameter, and arise most commonly on the buccal aspect, in the maxilla, and in the lateral incisor-canine region. They appear about the third month of pregnancy, are at their maximum at the seventh or eighth month, and usually disappear rapidly after delivery. There may be an associated gingivitis, but local irritation is often absent.

Treatment suggested is antenatal dental prophylaxis and the administration of large doses (100 to 300 mgm. daily) of ascorbic acid. Removal of gum tumors of pregnancy is not indicated, on account of their prompt regression after parturition.—A. H.


Heretofore, the treatment of this condition has consisted in destroying the prominent portions of the mass with diathermy and irradiation in an attempt to shrink the tumor sufficiently to restore a free airway. Repeated treatments during the course of months have been required, and results frequently have been indifferent. Surgical removal and skin graft, as carried out in the patient whose case history is reported here, are marked improvements over previous methods of treatment. Since the condition progresses slowly, treatment of this type should offer an excellent chance for permanent relief.—J. L. M.


The surgical indications and the technic of laryngofissure are discussed in this review of the surgical treatment of cancer of the larynx. The authors briefly summarize their experience in a series of 30 consecutive cases in which they had performed laryngectomies by a "narrow-field" technic during a period of about 2 years, without operative mortality or serious complication. Recurrences or metastases had developed in 4 cases and were being treated.—J. L. M.


Case report.—J. G. K.


Two cases of epithelioma of the lip with metastases to the vertebra are reported. The author points out that carcinoma of the lip rarely shows bone metastases and states that vertebral metastases, so far as he could ascertain, have never been previously reported. Each case showed compression of 1 vertebra, first lumbar and tenth dorsal respectively, as demonstrated roentgenographically. No autopsy is reported. Biopsy showed squamous cell epithelioma in 1 case only. Both patients had extensive involvement of the cervical nodes.—J. F.


The lip is one of the less common sites of mixed tumor, which usually arises in or near the salivary glands. In a series of 422 neoplasms of this type recorded in the literature, 9 were lip tumors. The mixed tumor reported in the present paper was on the upper lip of a woman of 35 years and was encapsulated. The nodule shelled out readily, local anesthesia being used. Various theories of development are discussed. It is thought most likely that these tumors represent accidental sequestration of embryonal cells. The majority of the tumors are slow growing. There is occasional recurrence. Surgical removal is recommended; roentgen radiation is used when the histologic picture suggests malignancy.—E. E. S.
SALIVARY GLANDS


Report of a characteristic case in a man of 76 years, with 2 figures.—J. G. K.


Theories concerning the fundamental structure of mixed tumors of the salivary gland type have been based on histologic features. The differentiation between “epithelium” and “stroma” in many areas may be sharp, but in other parts there is gradual, apparent transformation of “epithelium” into “myxomatous” tissue. Histochemical investigation of epithelial and mesodermal mucoids has shown that they can be differentiated by a titration method utilizing the difference in affinity of the protein complexes in the mucoids for dilute aqueous solutions of metachromatic dyes (toluidine blue or polychrome methylene blue). Another method of differentiating the mucoids is based on the greater resistance of the mesenchymal mucoids to hot acids.

The mucoid in the myxomatous and cartilaginous areas in mixed tumors of the salivary glands behaves as does the chondroitin sulphuric acid complex in skeletal cartilage, cartilomas etc., while the mucoid in the acini stains the chondroitin sulphuric acid complex in skeletal cartilage, gastrointestinal and respiratory tracts. It is considered that the cartilaginous and myxomatous areas in mixed tumors of salivary glands are truly mesodermal and that the “epithelial” elements are truly epithelial. The pathogenesis of these tumors is presumed to be on the basis of embryonic alteration in tissue relationships in accordance with the “organizer theory” of Speeman.—W. A. B.


All reported cases (48) of this relatively rare tumor are reviewed, and 19 previously unreported cases are presented. These tumors comprise much less than 10% of all parotid tumors and with rare exceptions are benign (96.7%). They occur usually in the fifth, sixth, and seventh decades of life, are 5 times more common in males than in females, and are believed to arise from the growth of parotid tubules and acini that have been found within lymph nodes adjacent to the parotid gland. The treatment of choice is surgical extirpation.—W. A. B.

Gastrintestinal Tract


Review of the literature and report of a case.—W. A. B.


It is suggested that involvement of the bladder by extension of neoplastic lesions of the sigmoid is no reason, in itself, for withholding a radical operation. The author supports this contention by comparing the results in 4 cases in which the diseased portion of the bladder was resected with 2 in which only palliation was attempted. Three patients of the first group were living for periods of from 10 to 46 months postoperatively, and 1 died at 13 months. The outlook in the latter 2 cases was hopeless.—E. A. L.
A case report.—W. A. B.


This paper describes the surgical management of tumors of the lower three-quarters of the esophagus and the adjacent few centimeters of the stomach. Resection of an esophageal carcinoma in the middle half of the organ necessitates complete resection of the thoracic esophagus and a cervical esophagostomy. Of 21 patients reported, 12 had metastases below the diaphragm; esophagectomy was performed on 6 other patients, 3 being alive and well at the time of writing. If the tumor lies in the lower fourth of the thoracic esophagus, in the cardiac orifice of the stomach, or the adjacent few centimeters of the stomach including the fundus, a transhiatal resection is performed with an end-to-side anastomosis between the esophagus and the stomach. Of 21 patients with tumors in this location, resection was done on 13 with carcinoma. Ten patients survived the operation, and 8 are living and well 3 months to 2½ years after operation.—E. A. L.


Brief clinical reports of 24 cases.—W. A. B.


A report of a case.—W. A. B.


A group of patients with carcinoma of the rectum, having one or more factors increasing the hazards of the operation, is discussed. It is thought that the indications for the operation should be broadened provided the mortality rate can be kept within reasonable bounds. The mortality was 9.5% in this group of 105 unfavorable cases.—E. A. L.


The author believes that too many gastric carcinomas are regarded as hopeless and offers evidence to show that from 18% to 20% of patients could be cured by resection if exploratory operations were promptly performed. Procedures of diagnostic value are discussed.—E. E. S.


The clinical and pathologic features of the case are described.—F. E. S.


This study is based on the examination of 75 specimens of the rectum and rectosigmoid removed at operation during 1939, 1940, and 1941. Sixty-two were removed by abdominoperineal resection, 10 by perineal excision, and 3 by anterior abdominal resection. Specimens were cleared by the Spalteholtz method slightly modified. The average number of nodes was 52, and metastases were present in 55% of the cases. This is in contrast to 36% found in a similar series of cases from 1916 to 1932 in which the clearing technic was not used. In more than half of the cases with node metastases only 2 nodes or fewer were involved, and these lay within 3 cm. of the tumor. The inadequacy of perineal resection was demonstrated by the presence of involved nodes beyond the limits of possible perineal resection in 13 of 17 cases with metastases in which the tumor lay below the pelvic peritoneum. Lateral spread of carcinoma along lymphatics accompanying the middle hemorrhoidal vessels was found in but 1 instance. Downward lymphatic spread occurs only when extensive metastases have blocked the other routes causing retrograde lymph flow. No relationship was found between the size of the tumor and frequency of metastases, but lymph nodes were involved in 53% of cases when the tumor was not completely annular and in 71% when it was. Invasion of blood vessels was found in 36% of the 75 specimens studied. The frequency of invasion varied directly with the depth of penetration of the bowel wall by the tumor and inversely with the degree of differentiation of the neoplasm. Of the 30 cases with visceral metastases 90% showed blood vessel invasion.—W. A. B.


A case of granulomatous tumors of the bowel secondary to amebiasis and causing intestinal obstruction is reported. The recent available literature is reviewed. Most of the cases have been diagnosed as carcinoma. Granulomas can develop in treated and untreated cases. Certain outstanding features should indicate the correct diagnosis. The examination of the stool for amebas after the tumor develops is usually negative. Intensive anti-amebic therapy may result in cure. In the majority of cases intensive therapy was not tried. However, it is generally believed that when the granuloma has reached a well-developed stage it will not respond to anti-amebic treatment. Most of the patients operated upon die of peritonitis. Cancer may develop in some instances.—J. L. M.


A general discussion. A brief summary is given of the frequency of the several types of operation that were performed in a series of 350 cases.—J. L. M.

Carcinoma of the Rectum, Rectosigmoid and Sigmoid: Selection of Cases for One-Stage Com-

The records of 163 consecutive patients upon whom a one-stage combined abdominoperineal resection had been performed are reviewed and the factors important for both clinical and surgical selection are discussed.—E. E. S.


The author states that the treatment of diverticulitis should be primarily medical except for the complications, but the treatment of polyps should always be surgical. Once the diagnosis of polyps of the colon is made, surgery is advised to protect patients from the possible development of a malignant growth.—J. L. M.


Among 93 patients (60 males and 33 females) subjected to various radical procedures for carcinoma of the rectum in 4 different hospitals, urologic complications occurred in 64% (38 males and 18 females). The anesthesia was spinal in 59, general in 27, and in 1, local. The commonest complications were: retention in 56 patients (64%), cystitis in 28 (33%), pyuria in 30 (35%), and pain or burning in 17 (19%). The complications were due to one or more of four factors: (1) direct injury to the urinary tract; (2) loss of supports of the bladder with postoperative sagging and pooling of urine; (3) the necessity of postoperative catheterization [24 patients (27%) required intermittent catheterization, 36 (41%) had retention catheters, and 27 (32%) voided normally in the first 24 hours]; (4) injury to the nerve supply to the bladder. The parasympathetic nerves are most frequently injured, and this occurs during the perineal stage of the operation. Mixed types of dysfunction occur, and are due to various degrees of injury to several of the nerve pathways. Injury or division of the pudendal nerves leads to incontinence.—W. A. B.


While both benign and malignant polyps may arise in any portion of the intestine, the sigmoid colon is most commonly involved. The symptomatology is not distinctive, and because some of the growths, though at first benign, ultimately may undergo malignant change, it is important to keep them in mind as possibilities in patients with vague abdominal symptoms. The case presented is one of a single malignant polyp of the sigmoid that probably had its origin in a benign adenomatous polyp. The case is of interest because it is an example of the well-known fact that not infrequently the symptoms due to metastases rather than to the primary malignant growth cause the patient to consult a physician. However, it is rare that the metastases almost completely replace the liver before, medical advice is sought. Probably the patient did have symptoms due to the original polyp, but they were so slight that they were neglected. From the appearance of the polyp it may be assumed that it was present a long time if not actually congenital. Therefore, it can be surmised that for a considerable period the lesion was benign. The hope of cure in this case rested upon its detection and removal during this period before the lesion underwent malignant change and formed metastases.—J. L. M.


In addition to being an example of an interesting tumor, this case is noteworthy because the father of the patient died of carcinoma of the stomach, which suggests perhaps a genetic predisposition. The prolonged history indicates a gastric ulcer that apparently underwent malignant change. Although the gastric resection apparently resulted in a cure locally, the ovarian metastases which were not evident at the time of the first operation, preceded a successful final outcome.—J. L. M.


Six patients are briefly described to illustrate the well-known observation that malignant tumors may produce few or no symptoms in the early stages of their growth.—E. E. S.

Bone and Bone Marrow


A case is reported of multiple hemangioma involving large areas in the upper end of the left fibula and both ends of the left tibia of a 15 year old boy. The patient was followed for 10 years. For 6 years no progress of the lesions was apparent. Nine years after the first examination extensive involvement of the tarsal bones and the fourth metatarsal was demonstrated roentgenologically. The extensive bone lesions were accompanied by only moderate disability. A biopsy was made and the case submitted to the bone tumor registry (Reg. No. 1361) where an original diagnosis of osteitis fibrosa was later changed to primary hemangioea.—C. E. D.


There is a brief summary of the clinical history, physical findings, and laboratory data in the 5 new cases.—E. E. S.


Bone sarcoma is generally recognized as a disease of younger persons, but this case in a patient 55 years of age serves to emphasize that it is also encountered in elderly people.—J. L. M.


A report of 2 cases.—W. A. B.

Direct invasion of bone by epidermoid carcinoma is rare and occurs mostly in the tibia due to its proximity to the skin. The predisposing ulcers of the leg and draining osseous sinuses may exist for many years and even decades, and a malignant degeneration may therefore be overlooked. Cases of an ulcer carcinoma and a fistula carcinoma are reported. The characteristic clinical and roentgenologic features and the differential diagnosis are discussed.

The prognosis is favorable, even in advanced cases, since distant metastatic lesions have been observed on only 6 occasions. Amputation of the diseased leg is usually indicated unless an early diagnosis allows more conservative procedures. In chronic osteomyelitis, efforts should be made to cure residual active foci. With an increase in secretions and development of pain and hemorrhage, periodic roentgenologic and biopsy studies are advisable.


A report of 3 cases. The lesions necessitating operation were: (1) osteochondroma of the ilium, (2) chondrosarcoma of the brim of the pelvis, (3) osteosarcoma of the ischium. A review of the literature and description of the operation are included.—G. H. H.

**Spleen**


A report of 5 cases.—W. A. B.


A case report.—W. A. B.


A case report.—W. A. B.

**Adrenal**


The 3 tumors were benign and were incidental findings at autopsy.—W. A. B.


One of the patients reported on was cured surgically. In the other the tumor was found at autopsy. Hypermetabolism, an outstanding feature in both cases, disappeared in the first after surgical removal of the tumor.—W. A. B.


The successful removal of a 4,200 gm. adenoma of the adrenal is reported. No hormonal disturbances were present.—V. F. M.

**Pituitary**


Description of a case.—E. L. K.


The new technic is useful in those cases in which edema or increased intracranial tension makes the usual approach impossible unless lobectomy is resorted to.—M. E. H.


Isolated reports of cases of metastatic lesions of the pituitary gland in association with abscesses situated elsewhere in the body have been reported in the literature, but the present case is the first seen at the Mayo Clinic and is reported for that reason.—J. L. M.

**Pancreas**


Case report.—J. G. K.


The values for activity of lipase and of amylase in the serum were exceedingly high, but the data did not show conclusively whether these phenomena resulted from obstruction of the pancreatic ducts and absorption of the enzymes into the blood stream or from functioning of the acinar cell carcinoma.—J. G. K.


Carcinoma of the body and tail of the pancreas is frequently associated with multiple venous thrombi (7 of 21 cases). This is not true of carcinoma of the head of the pancreas (no instance among 30 cases, but in 5 cases there was a single thrombosed vein). It is suggested that the tumors, which in every case showing multiple thrombi were of the mucinous type, may secrete an abnormal substance or an undue amount of a normal substance concerned in blood clotting.—W. A. B.