molecules at the latter temperature. A 10\% sodium chloride extract of the normal subcutaneous tissue of the rat reacted somewhat similarly although the relative increase in clarity was restricted to a zone between 45\(^\circ\) and 55\(^\circ\) C. This biphasic reaction was absent in comparable concentrations of protein of induced benzpyrene or methylcholanthrene sarcoma of the rat. Further, in tumor extracts an increase in Tyndall effect was noted at a temperature of 46-51\(^\circ\) C., thus indicating the presence of more labile proteins. In more dilute tumor protein suspensions a slight relative increase in clarification occurred at lower temperatures. Rabbit liver and kidney proteins reacted similarly to tumor extracts.---M. J. E.


With the aid of a microcinematographic apparatus active phagocytosis of leucocytes and wandering cells by tumor cells was observed in explants of a mouse carcinoma. At a later stage remnants of the phagocytosed cells are frequently encountered as inclusion bodies in the cytoplasm of the malignant cells.---M. J. E.

**Clinical and pathological reports**

**Hereditary**


Of 9 pairs of monozygous twins in whom neoplastic disease occurred in one or both members, both were affected in 6 and one in 3 instances, while of 10 pairs of dizygous twins both were affected in only 2 and one in 8 instances. Tumors occurring in twins were frequently similar in each member of a pair.---M. J. E.


A review of the literature discloses an incidence of primary multiplicity of between 3.5 and 4\% of all malignant lesions. Report of a case of simultaneous occurrence of cancer of the face and the breast, and another of carcinoma of the lip and the thyroid. The hypothesis is advanced that the genesis of multiple cancers depends on the interaction of a functionally mature gene bearing the unit character for cancer inheritance with a functionally mature gene bearing the unit character for localization but endowed with the faculty to affect various structures similarly.---H. G. W.

**Diagnosis—General**


The average areas of the nuclei and nucleoli, and the average nucleonucleolar ratio, are not the same in all normal tissues; they vary, probably according to the function of the organ, and in the same organ they vary with the metabolic activity. In nonmalignant lesions the average area of the nucleoli is smaller and the average nucleonucleolar ratio is larger than in carcinoma. In the cells of the fetus, normal liver, membrana granulosa of the ovary, and exophthalmic goiter the areas of nucleoli and the nucleonucleolar ratios approximate those found in carcinoma. This is probably attributable to the great metabolic activity of these cells. There is more variation in the extreme areas of the nuclei and nucleoli in carcinoma than there is in nonmalignant lesions. The average area of the nucleoli and the average nucleonucleolar ratio vary according to the degree of malignancy; the former in a direct and the latter in an inverse proportion. In carcinoma the average area of the nucleoli increases and the average nucleonucleolar ratio decreases from grade 1 to grade 2, from grade 2 to 3, and from 3 to grade 4. The increased amount of nucleolar substance in cancer cells is most probably attributable to the great cellular metabolism and cellular division characteristic of those cells. The increasing of nucleolar substance associated with the increasing in the grade of carcinoma is most probably attributable to the increase of cellular metabolism and cellular division from grade 1 to 2, from grade 2 to 3, and from grade 3 to 4.---Author's summary.


A lecture on the differentiation of carcinoma of the cervix uteri and reparative lesions.---H. G. W.

URINES, WITH SPECIAL REFERENCE TO MALIGNANT NEOPLASIA. Am. J. M. Sc., 202:239-237, 1941.

Studies on the surface tension and on the adsorption of the surface-active substance were performed on 118 urines, from normal persons and from patients suffering from various diseases. In the majority of the urines of patients afflicted with malignant neoplasms, acute infections, or tuberculosis, a characteristic quality of the urinary surface-active substances was observed with regard to their adsorbability.—H. G. W.

NERVOUS SYSTEM


The occurrence of focal epileptic seizures in 703 cases of intracranial tumor is discussed.—M. J. E.


Localized, deeply melanotic subdural tumors were excised from the lumbar cord and the occipital lobe respectively. The growths did not invade the substance of the spinal cord or brain, but in the second case the dura about the tumor was pigmented and neoplastic cells had extended into the covering occipital bone. From the standpoint of structure and effects on the patients the tumors closely resembled meningioma. Their only relationship to melanoma was the presence of specific pigment granules. The postoperative course was favorable and the first patient appeared tumor-free after 5 years, the second after 2 years. Roentgen therapy was administered in the second case to the exposed brain after removal of the tumor nodule (2000 r) and postoperatively (4,200 r). Drawings of the lesions in situ and photomicrographs are reproduced.—M. J. E.


The author distinguishes cerebral swelling and edema as graded but basically similar reactions of the brain tissue about and at a distance from cerebral neoplasms. Ten cases of benign and malignant tumor form the basis of the report. Photographs of gross specimens and photomicrographs illustrate the report.—M. J. E.


A general outline of the symptoms and findings in cases of spinal cord tumor is given. The paucity and chronicity of the early symptoms, and their indefinite nature leading frequently to erroneous diagnoses of rhematism, back strain, neuritis, or gall bladder disease are stressed. Incorrect treatment is consequently applied. The true nature of the lesion is generally not established until paresis, paralysis, sensory loss, and deficient bladder control are fully developed. Photographs of tumors in situ are reproduced.—M. J. E.


Post-mortem examination on a 16-year-old girl with long-standing manifestations of cerebellar disease and neurofibromas of the thoracic and abdominal sympathetic nerves disclosed extensive tumor-like proliferation of astrocytes of the meninges covering the right cerebellar hemisphere with extension of the process to the fourth ventricle.—M. J. E.


A case is reported which supports the concept that the supposed effects of pineal tumors in causing sexual precocity really depend on involvement of the hypothalamus, with uncontrolled release of pituitary substance, rather than to overproduction of any hypothetic and as yet unproved pineal secretion.—H. G. W.


Defects in vision accompanying intracranial tumors generally arise from direct compression of the optic pathways. They are not considered characteristic of cerebellar tumors and if observed in a case with other evidence of a cerebellar location of an expanding focus, are likely to cause confusion in diagnosis. Eight cases of cerebellar neoplasm are recorded in which visual field defects occurred, and in 7 it was necessary to resort to ventriculography to ascertain the diagnosis with certainty. Four patients had partial or complete homonymous hemianopia, 1 a bitemporal hemianopia, and 3 irregular atypical field defects. The disturbances in the optic system are the result of obstruction of the cerebral aqueduct by the cerebellar tumor with resultant ventricular dilatation and variable types of compression of the optic chiasm by the distended third ventricle.—M. J. E.


An attempt was made to remove surgically a portion of a dermoid attached to the medulla. The patient died postoperatively. Extensive degenerative changes were present in the medulla as a result of compression by the growth. A photograph of the brain and photomicrographs are reproduced.—M. J. E.

ALBERS, E. S. [Christie Clinic, Champaign, Ill.] BENIGN MELANOMAS OF CHOROID AND THEIR MALIGNANT TRANSFORMATION. Am. J. Ophth., 23:779-788, 1940.

Benign melanomas of the choroid are considered analogous to pigmented nevi of the skin. They are visible ophthalmoscopically as localized slate gray spots in the fundus. They may undergo malignant transformation, as is demonstrated by the author’s case. A benign lesion had been observed in a woman of 60 years 8 years prior...
to the present illness. She now had a large intra-ocular malignant melanoma completely obliterating vision in the affected eye. The eye was enucleated, but the patient died of hepatic metastases 2 years later.—M. J. E.


A localized small benign melanoma (pigmented nevus) of the ciliary body was an incidental necropsy finding in a woman of 63 years who died of arteriosclerotic heart disease.—M. J. E.


A fibrohemangioma of the posterior orbit, which had produced exophthalmos of 6 years’ duration, was successfully excised through a transfrontal incision and removal of the orbital roof. The exophthalmos regressed completely after operation and there was excellent retention of function in the eye of the previously involved side.—M. J. E.


Resection of the orbital tissues was successfully performed for an epidermoid carcinoma arising in the lacrimal sac. Postoperative roentgen therapy (200 kv., 5,400 r in fractionated doses) was administered and the patient appeared tumor-free 10 months later.—M. J. E.


Two cases are recorded of extension of intraocular melanoma into the optic nerve and interior of the skull. In the first patient the tumor arose in the iris and extended into the ciliary body, retina, and optic nerve by way of the lamina cribrosa. In the second the growth was situated in the posterior portion of the choroid and invaded massively the retina and optic nerve. Enucleation was performed in both cases and in the second, in addition, an extirpation of the orbit was resorted to 4 months after the first operation. Both patients died of intracranial melanoma deposits originating in optic nerve extension of the tumor, the first 7 years after operation, and the second after 28 months. The author suggests that suspicious optic nerve extension of melanoma in a patient who is a good operative risk requires immediate radical treatment, consisting not only of extirpation of the orbital tissues, but also of intracranial and interocular removal of the optic nerve.—M. J. E.


Gelatinous metastasis in the choroid of a cancer of the rectum was observed in a woman of 43 years 10 years after radical removal of the primary growth. As it was impossible to determine the metastatic nature of the ocular growth diagnosed ophthalmoscopically, enucleation was performed. Metastatic lesions in the skull and liver developed 2 years later.—M. J. E.


Observations are given on 4 members of a family in which bilateral neurofibromas of the acoustic nerve are inherited as a dominant mendelian trait. The disease affects both male and female individuals, and the outstanding symptom is long-standing deafness. Some members are known to be deaf, but do not appear otherwise inconvenienced. Tumors of the eighth nerve in 2 individuals were associated with neurofibroma in other areas of the central nervous system. In the present series the diagnosis was verified at necropsy in 2 patients, while in 2, with clinical evidence of bilateral growths, a tumor of one side was removed surgically because of severe symptoms. One of the latter group belonged to the sixth generation of this family. Photographs of gross specimens and photomicrographs are reproduced.—M. J. E.


The paper contains a general discussion of primary and metastatic tumors of the ear and the effects of intracranial neoplasms on auditory function.—M. J. E.


Four cases are described. In each a tumor mass was visible in the auditory canal and involved the middle ear. Pain and paralysis of the facial nerve were the salient clinical features. The tumor in the first case, a squamous cell cancer, was resected. The patient died 1 month later and necropsy disclosed infiltration of the temporal lobe of the brain. The second patient had an adenocarcinoma, apparently primary in the ear, and died after 4 months despite intensive roentgen therapy. The third had a fibrosarcoma and remained tumor-free 4 years after roentgen irradiation, and the fourth a neurofibroma which was excised successfully. Photomicrographs are reproduced.—M. J. E.

BREAST


Two typical cases of carcinoma erysipelatodes, which developed after mastectomy and were mistaken for post-operative inflammatory conditions, are reported, and the medicolegal importance emphasized. The metastatic process is a permeation of the subepidermal lymphatics and tissue spaces rather than of venous channels.—H. G. W.


General clinical discussion.—M. J. E.
This is a general consideration of the clinical aspects of the problem.—M. J. E.


The authors follow the generally accepted methods of treatment of mammary tumors.—M. J. E.


Testosterone propionate is said to inhibit lactation but no data are included showing measurements of actual decrease in milk production.—J. H. F.


The authors have observed carcinomatous changes localized in the small lobular ducts in 2 instances among 300 specimens of carcinoma of the breast; in 12 other cases lobular carcinoma in situ was recognizable even though there had been infiltration throughout other parts of the breast. In the noninfiltrative cases there was no retraction of the nipple or fixation of the skin or of the nodule. Microscopically one finds a lobule or group of lobules in which the cells are large, somewhat loosely arranged, and are displaced towards the centers of the lumina in a disorderly fashion. Mitoses are rare and the cells are uniform and lacking in hyperchromatism. As this lesion occurs in multiple lobules simple mastectomy is essential; further procedures must depend on the finding of infiltration.—H. B.


After reviewing 227 cases of papilloma of the breast, the authors conclude that any patient with discharge from the nipple should be treated surgically, because in 60% of all patients with malignant papillomas who had discharge from the nipple, no tumor was palpable.—G. De B.


This is a documented review of the results of experimental work on animals and the clinical inference drawn from these results. A total of 164 articles is cited dealing with carcinoma of the breast, carcinoma of the cervix, carcinoma of the endometrium, carcinoma of the vulva, and with nonmalignant tumors of these structures.

Production of breast carcinoma in mice requires estrogen dosages equivalent to 50 to 500 times the physiological amounts, and the treatment must be extended over a period representing one-tenth to one-half of the total life span of the animal. Omitting questions of the known differences in the reactions of different species, if the various carcinogenic actions of the estrogens are assumed to apply equally to the human, it would be necessary to give a human female 120.0 mgm. of estradiol benzoate a week for a period of 10 to 20 years to obtain carcinoma of the breast as it is produced in the mouse.

On the basis of this survey the authors present the following general remarks:

"The cause of certain tumors in certain animals has been definitely established. The administration of certain dosages of estrogens for certain periods of time have caused specific tumors in the mouse, rat, guinea pig, and rabbit. Filterable viruses cause specific tumors in the fowl and in the rabbit. Certain chemical carcinogens cause specific tumors in the mouse, rat, rabbit, and dog. On the other hand, experimental evidence is difficult to obtain in the human. While certain tumors in the human may be due to specific chemical carcinogens (bladder tumors in dye workers), the general cause of tumors in the human is not known. Genetic factors, irritation, chemical carcinogens, filterable viruses, sex hormones, and even other etiological factors have all had their proponents. The various 'proofs' of the importance of each of these factors have of necessity been by inference only.

"The authors of this review do not believe that there is sufficient evidence to clearly establish that any one factor, such as estrogens, is the sole important etiological agent in the production of malignant or nonmalignant tumors in the human female. There is insufficient evidence available to lead to the assumption that estrogens, as produced in the body or as administered by the physician, have directly caused tumor formation in the human."—E. A. L.


Twenty-one cases of carcinoma of the breast were irradiated over periods of from 11 to 49 days with fractional methods. The tumor doses were from 1,200 r to 4,500 r. From 1 to 45 days after the end of radiation, amputation of the breast was done and the tumors studied histologically for changes due to irradiation.

The early effect of irradiation was production of necrosis of the radiosensitive tumor cells which was most prominent within the first 2 weeks. Later, bizarre cell forms with irregular nuclei progressing to giant cells with calcifying nuclei were seen. Four to 5 weeks after the end of irradiation resumption of tumor growth occurred, although late irradiation effects, such as clumps of debris containing calcified giant cell nuclei, and foreign body giant cells, still persisted. Fibrosis of the tumor bed and blood and lymph vessel obliteration did not occur. The similarity between these observations and those previously demonstrated in experimental animals by the junior author is noted. It is imperative to operate early before the tumor resumes its growth.—E. A. L.


Case report.—E. A. L.


A general discussion on diagnosis and treatment.—M. J. E.
From a study of the literature and of 9 cases of his own, the author concludes that mucinous carcinoma of the breast is not a single entity, but can be classified into at least 4 definite types of tumors: 1. The true mucinous carcinoma, with but few tumor cells remaining, is relatively benign. 2. Duct carcinoma with mucinous features, is the most common type. 3. Signet ring cell mucinous carcinoma is highly malignant. 4. Intraepithelial papilloma with mucinous features is relatively rare and nonmalignant.—H. G. W.


All cases suspected of cancer of the breast are subjected to a biopsy examination and started on radiation therapy immediately. A 200 kv. instrument is used with a 50 cm. distance and filtration of 2 mm. of copper and 1 mm. of aluminum. First, the affected breast is cross-fired through two ports directed tangentially to the chest wall. Two hundred r (measured in air) are given to each port daily until 2,000 to 2,500 r are delivered to each. The axilla is then treated through one or two ports until 1,200 to 1,400 r are delivered. The supraclavicular fossa is then similarly irradiated. The total dose here is from 1,600 to 2,000 r to each port. Six to 8 weeks later a radical mastectomy is performed on patients with disease limited to the breast or to the breast and axilla. The postoperative course is started 4 to 6 weeks after the surgery and is similar to the preoperative except that the dosage is kept within the lower limits. Irradiation sterilization is recommended for all menstruating patients. The method has been in use 2½ years.—E. A. L.


Early diagnosis of cancer of the breast is exceptional. Even in the ideal situation when the patient applies for treatment promptly after being cognizant of a lump, the neoplasm has been present undoubtedly for an unknown length of time. Despite the satisfactory percentage of cures reported frequently from other institutions following radical mastectomy, the results obtained by the author have not been encouraging. Of an earlier group of 58 patients so treated 58% survived 3 years, 38% 5 years, and 17% 10 years postoperatively without evidence of tumor. In a second group of 73 cases, 39 patients were submitted to a similar operative procedure, while 34 had a simple mastectomy performed. Two courses of roentgen therapy of 1,900 r each directed through multiple portals in the involved area were administered postoperatively. The results in these 2 small groups were almost identical, as 12 patients died of metastases in the former and 11 in the latter. The postoperative interval varied from under 1 year to 10 years. Photographs of the resulting local condition in cured patients are reproduced.—M. J. E.


Of 446 patients on whom radical mastectomy was performed for cancer of the breast 95 had hypertensive cardiovascular disease. Hypertension did not influence adversely the operative mortality, 7 (1.57%) died postoperatively in the series as a whole and 1 (1.05%) in the hypertensive group.—M. J. E.


General remarks.—M. J. E.


Medical examination of 440 men called for auxiliary military service disclosed a carcinoma of the breast in 1 patient, aged 50 years, and a fibroadenoma in a second, aged 30. The first patient was tumor-free 5 years after radical excision of the growth.—M. J. E.


A discussion of many of the controversial aspects of the pathology, relationships, clinical appearances, and treatment of benign and malignant lesions of the breast.—M. J. E.

Urinary System—Male and Female


The treatment of all renal tumors is nephrectomy, if possible, but inoperable renal tumors are often rendered operable by a preliminary course of deep x-ray therapy. Painless hematuria is probably the most important early symptom of renal tumor.—H. G. W.


Bladder tumors treated by external radiation with one million volts, constant potential, have responded better than similar growths treated with lower voltage units. Well marked regression has occurred in about one-half the cases so treated with at least temporary disappearance of the tumor in about one-third. Symptoms such as bleeding and painful urination were relieved in about half the cases. In its present experimental stage it is doubtful if this agent is curative and it should not be regarded as a substitute for surgery.—H. G. W.


In the above period, 13 cases of malignant renal tumors were observed. In only a single instance, however, was the histologic structure typical of hypernephroma. Adenocarcinoma and papillary or alveolar cancer were found in 11 patients, and 1 tumor was an embryonal adenomyosar-
coma. Only 3 patients of the 11 with operable growths treated by nephrectomy survived after 5 to 7 years.—M. J. E.


After reviewing the 26 cases of Wilms' tumor in this series, the authors conclude that preoperative irradiation followed by nephrectomy and postoperative irradiation is the best method of treatment.—G. DeB.


A group of 9 neoplasms is reported which were histologically suggestive of sarcoma in some portions, but it was possible to demonstrate the epithelial origin of all. The short clinical history and poor results of treatment in these cases attest to the extremely malignant nature of all lesions of this type in the urinary bladder.—H. G. W.


Infiltrating vesical tumors were treated by partial cystectomy in 36 cases, cystotomy and diathermy with or without radon implantation in 68 cases, cystectomy and ureterosigmoidostomy in 18. The operative mortality was high in each instance and there was a considerable percentage of deaths within 1 year. A number of patients in each group survived for varying intervals. Of the 26 in the group treated by diathermy and suprapubic radon insertion 9 were free from disease after 2 to 4 years.—M. J. E.


A primary carcinoma of the ureter produced pain and hematuria. An attempt to cauterize the affected ureter disclosed an obstruction, and a filling defect appeared in a ureterogram. The involved ureter and corresponding kidney were removed in 2 stages. No evidence of a recurrence had arisen after 2 years.—M. J. E.


Of 25 patients subjected to cystectomy (generally following preliminary ureterosigmoidostomy) for bladder cancer, 7 died postoperatively.—M. J. E.


Case report.—H. G. W.


Benign tumors were encountered in 21 patients, the diagnosis being established postoperatively. Cysts constituted the common lesion in this group; more unusual were fibroma, papilloma, hemangioma, or leiomyoma. Removal invariably produces a complete cure. Operation was performed on 62 of 97 patients with malignant growths. Histologically these were classified as adenocarcinoma in 40 cases, carcinoma in 15, sarcoma in 3, embryoma (Wilms' tumor) in 2, and papillary carcinoma in 2. The diagnosis unfortunately is generally delayed, and the tumors are prone to metastasize. The ultimate prognosis is poor. All patients died of recurrences or metastases, the majority within 5 years, a few at a somewhat later date.—M. J. E.

ORAL CAVITY AND UPPER RESPIRATORY TRACT


Two types of operative procedure were employed in cases of laryngeal cancer,—laryngofissure and laryngectomy. The former is the method of choice when the tumor is intrinsic and limited to the vocal cord. Of 149 cases in this group 7 patients died postoperatively and 20 had recurrences or metastases 1 to 12 years after operation. An estimate of the 3-year survival period was possible in 104 patients and 62 were free from disease at this time. Laryngectomy was employed in 101 cases for more extensive cancers. Six patients died postoperatively, and recurrence or metastases occurred in 20. Of 55 patients in this group submitted to operation 3 or more years previously, 26 survived without evidence of tumor. Photographs of excised gross specimens are reproduced.—M. J. E.


Diagnostic methods and technic of roentgen therapy are outlined.—M. J. E.


Squamous cell carcinoma of the tongue with lung metastasis is rare, occurring but twice in a series of 143 cases which are here reported.—H. G. W.


One case each of transitional cell cancer and lymphoepithelioma is recorded. Roentgen therapy in each instance produced striking improvement, but the first patient died of an intracranial metastasis, while the second had a local recurrence.—M. J. E.


A discussion of the surgical and roentgen methods of treatment of laryngeal cancer.—M. J. E.


In support of the role of tobacco as an etiologic factor in cancer is the fact that cancer of the mouth in chewers develops at the point at which the chew is held, as was true in the eight cases reported. Perhaps tobacco is responsible for betel nut chewer's cancer, for tobacco is a common
Mixed tumors of the salivary glands are usually relatively benign growths. While occurring most commonly in the parotid, they are observed occasionally in the submaxillary gland, palate, or inner side of the cheek. Adequate surgical excision affects a high percentage of cures, but a recurrence is not infrequent following simple enucleation. The tumors are extremely radioresistant. The author's technic for the treatment of mixed tumors consists in a more radical excision which includes the surrounding portion of the normal parotid gland. A preliminary dissection of the facial nerve is made to insure thorough exposure of the tumor. Permanent injury to the nerve may generally be avoided. When the tumor is malignant, complete extirpation of the gland is indicated, and if necessary, branches of the facial nerve are sacrificed. Of the 9 patients with malignant forms, 1 was without evidence of a recurrence 11/2 years following operation of the latter type. Photographs of patients and an excised tumor are reproduced.—M. J. E.

A lipoma of the tongue in a 55-year-old Negro woman is reported, apparently the first such growth in a Negro.—H. G. W.

Analysis of the more accurate mortality statistics compiled in recent years indicates a constant increase in the incidence of laryngeal cancer. In the United States during the 5-year period of 1934-38 the proportion of deaths from the larynx of the total deaths from malignant disease increased steadily from 1 in 122 to 1 in 111. Cancer of the larynx occurs preponderantly in males in the ratio of approximately 10:1. The suggested causes of the greater frequency of laryngeal cancer are abuse of alcoholic beverages and tobacco, and increased contact of the general population with gasoline fumes and the dust of tarred roads. The report includes appropriate tables and graphs.—M. J. E.

A special article based on a clinical study of 157 cases admitted to Memorial Hospital from 1931 to 1935. The etiology, clinical course, method of treatment, end results and prognosis are discussed in detail. The net 5-year cure rate is 18%, but in cases without metastasis it is 40%, while in those with metastasis it is 8%. Among the cases are 20 of lymphosarcoma, with 5-year cures in 20%. No evidence that chronic tonsillitis, smoking, or syphilis play a role in the etiology could be found, except that isolated cases of cancer of the base of the tongue, tonsil, and soft palate occur with sufficient frequency in heavy cigar smokers to support the theory of a direct causal relation.—H. G. W.

This is a report of 162 cases of carcinoma of the tonsil seen from 1915 to 1935. Methods of clinical and pathological diagnosis are reviewed. In the common squamous cell type of tumor the tonsil is indurated, enlarged, ulcerated, and fungating. In a small number of cases the tonsil may be hypertrophied with little or no ulceration, and when associated with early metastatic involvement of the upper anterior cervical triangle lymph nodes, suggests the diagnosis of anaplastic, transitional, or lymphoepithelioma type of disease.

Treatment should be irradiation. Generally this can be done with 200 kv. x-ray therapy. The tonsil and gland-bearing areas should be cross-fired with about 3,500 r, measured in air, delivered to each port. After subsidence of the mucositis, the residual primary tumor should be implanted with gold radon seeds or small radium needles. After the primary has healed, pathologically demonstrable disease in the cervical lymph nodes may be treated by removal of the nodes and implantation of gold radon seeds in the tissue bed if the capsule of the nodes is not involved. If the capsule is involved, it is best to seed the nodes in situ.

In the group without demonstrable cervical metastases the results have improved from 14% 3-year arrests in the patients treated from 1915-29 to 44% in those treated from 1932-35. In the group with cervical gland involvement the results have improved from 14% to 19.3% 3-year arrests.—E. A. L.
Abstracts


A selected group of 38 cases, in contrast to about 450 cases treated by operation, have been treated at the Mayo Clinic with the aid of suspension laryngoscopy. Of the 27 patients with malignant disease of the hypopharynx, 51.8% are still well, and of 11 patients with interaryngeal lesions 90% are well.—H. G. W.


This is a survey of the literature for the years 1938 and 1939.—M. J. E.


The authors discuss tumors of the salivary glands and related tissues on the basis of 62 personally observed cases. Seven tumors were metastatic. Of the 55 primary growths 40 were mixed tumors and 15 carcinomas. Since approximately 33% of mixed tumors treated by simple excision recur, as contrasted with a rate of recurrence of only 5 to 10% following a radical resection, the latter procedure is advocated. Permanent total or partial nasal obstruction of the nasal passage, its propensity to profuse bleeding when subjected to surgical measures, and the possibility of hemorrhage following radical resection of malignant tumors.—M. J. E.


Nasopharyngeal fibroma, while histologically a benign lesion, is clinically malignant or potentially so because of the enormous size it may attain with consequent obstruction of the nasal passage, its propensity to penetrate the bones of the base of the skull, and the tendency to produce bleeding when subjected to surgical measures. By preliminary irradiation some reduction in size of the tumors may be achieved and the possibility of hemorrhage minimized, thus making a surgical intervention less hazardous. Three cases are reported illustrating this combined treatment. Radium (800-1,000 mgm. hr.) was introduced in a postnasal pack about the tumors, and 3 to 4 weeks later the subsisting portions were excised with comparative ease.—M. J. E.


The results of surgical and roentgen therapy in 50 cases of cancer of the larynx, pharynx, and sinuses are tabulated. A small number of patients in each group treated in early stages survived for periods of 6 months to 5 years.—M. J. E.

Salivary Glands


Four examples of uncomplicated adenoma of the parotid gland are recorded. The growths in each instance were encapsulated and readily excised. In 3 cases the tumor acini were formed of serous cells with which were associated occasional acidophilic forms. In the fourth case, however, the oxyphil cell type with foamy cytoplasm predominated. The latter case occurs normally in the salivary glands, especially in advanced age.—M. J. E.

INTRATHORACIC TUMORS—LUNGS—PLEURA


The authors present this as the first case of intrabronchial sarcoid reported in which diagnosis was established by bronchoscopy and biopsy. The patient had generalized sarcoidosis; lymph node and skin biopsies were also diagnosed as sarcoid. Two microscopic photographs and a bronchoscopic view are shown and 5 references given.—A. M.


A patient of 61 years appeared in good condition 8 months following total extirpation of the right lung. The upper lobe was completely infiltrated by a bronchogenic cancer.—M. J. E.


Report of a case of leiomyoma of the lung, removed surgically, in the presence of active tuberculosis.—H. G. W.


In 284 cases of cancer of the upper respiratory and alimentary tract coming to autopsy, there was found 23.3% of blood-borne dissemination, the most common sites being the lung, the liver, and the pleura in the order named. Patients who died from cancer of the cheek, gingiva, palate, nasal cavity, and esophagus showed the greatest incidence of distant metastasis. It was impossible to determine the probability of distant metastasis from the morphology of the tumor or the age of the patient, but it was 2½ times as frequent in patients with cervical lymph node involvement at the time of admission.—H. G. W.


A case of superior pulmonary sulcus tumor is described with the characteristic symptomatology of pain in the shoulder radiating to the arm, atrophy of the small muscles of the hand, Horner’s syndrome, and roentgen evidence of a pulmonary mass. The tumor was inoperable, and microscopic examination of a fragment disclosed an undifferentiated carcinoma.—M. J. E.


The incidence of hemothorax in 247 proved cases of primary carcinoma of the lung was 35, whereas of 86 cases of hemothorax but 2 occurred in secondary carci-
noma of the lung. Surgical intervention is contraindicated in hemothorax with carcinoma cells or when malignancy is demonstrated by bronchoscopy in the presence of hemothorax.—H. G. W.


Clinical study.—H. G. W.


Following pneumonectomy in a white male 39 years old, with no residual tumor observed in the thorax at the time of operation, a bronchogenic carcinoma simplex attained a weight of 2500 gm. at the time of death 58 days later. Metastases were found in regional lymph nodes, pericardium and veins of esophagus, together with direct extension to the subcutaneous tissues beneath the surgical incision. Computation shows that the growth of the tumor must have been much more rapid in the later days than in the earlier days, probably attaining an ultimate value of about 340 gm. per day.—Authors’ summary.


Clinical report of 130 cases of primary carcinoma of the lung.—E. A. L.


Based on a study of 216 cases it is shown that pathologically and clinically small cell carcinoma, adenocarcinoma, and squamous cell carcinoma are 3 fundamental types of bronchogenic cancer. In cases of small cell carcinoma, because of its central location, rapid growth, and potent invasive and metastatic powers, there is little hope that many cases will ever be cured by excision. Adenocarcinomas, which arise in the periphery of the lung, are most favorable for excision but are inaccessible for tissue examination. Squamous cell carcinoma is the best suited for surgical removal. The differences between these types early in the disease sometimes permit their distinction, and late in the disease approximately 60% differentiation is possible. Bronchoscopy will be negative in 40 to 50% of cases if performed at the outset of the symptoms. The impression that clinical symptoms tend to occur early when the tumor is in an operable state, has been gained from this study. This paper is followed by an extended discussion.—H. G. W.


Three cases of malignant tumors derived from the lining cells of the pleura and 2 from the peritoneum are recorded. They are classified as mesothelioma.—M. J. E.


A brief review is given of the cases in the literature of primary myxomas, fibromyxomas, and fibromyxosarcomas of the heart, with discussion of the theories of the origin of such tumors. The author's case is that of a 51-year-old woman whose symptoms of dyspnea and pain about the heart began 8 months before death. At postmortem examination there were found 3 myxomatous polyps, the largest of which measured 3 by 2.5 cm., which arose from the posterior wall of the pulmonary artery about 3 cm. above the valve cusps. Microscopically these were composed of large, spongy, round and spindle-shaped cells many of which were in mitosis; there were also neoplastic giant cells present. Extensive metastases were found along the pulmonary artery tree, within the parenchyma, and within the bronchi of both lungs; the microscopic structure of these was the same as that of the polyps in the main pulmonary artery.

Since there was an area of pulmonary arteritis around the base of the polyps the authors felt that the tumor might have arisen from a zone of myxomatous metaplasia in the organizing thrombus at this site, which subsequently underwent a sarcomatous change and metastasized to the lungs. (A leiomyoma of the uterus was also found but no unusual growth activity was present in it.) This is probably the second fibromyxosarcoma that has been described in the pulmonary artery, the authors state.—H. B.


A mediastinal tumor with endotelioid characteristics is reported. It was removed, but with fatal outcome.—H. G. W.


A case of dermoid cyst of the anterior mediastinum is described. The lesion, 20 cm. in diameter, was successfully removed.—A. M.


A case of multiple primary “alveolar cell tumor” in the lung is described, and an attempt made to trace the origin of the tumor cells from the septal cells of the alveolar walls, similar to the common lung tumors of mice.—H. G. W.


The authors summarize for neoplastic disease of the lung the results of 116 pneumonectomies, including 15 of their own, which have been reported to date. In 109 of the collected cases in which a statement was made as to the outcome, 45 (41.5%) patients recovered and 64 (58.5%) died. Of the 45 patients who recovered from the operation, 8 have subsequently died. The authors believe the increased incidence of pulmonary carcinoma is real, and in support of this, they quote many autopsy series which in general show that the incidence of carcinoma of the lung in all autopsies and among all car-

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cinomas has increased significantly. Although they admit that this increase is due partly to an increase in life expectancy and to better methods of diagnosis, they are convinced that the real cause is the increase in smoking, especially of cigarettes. The pathology, the symptomatology, the diagnosis, and the treatment of carcinoma of the lung are discussed. There are 10 graphs and a bibliography of 16 pages.—G. De B. 


After stressing the cardinal importance of early diagnosis of pulmonary cancer with the aid of adequate roentgen and bronchoscopic studies the authors report the results of pneumonectomy in 6 cases. Two patients died postoperatively of complicating purulent pericarditis and empyema respectively, 1 of cerebral metastases after 8 months, and 1 of coronary thrombosis after 1 year without evidence of tumor. Two are reported as symptom-free at an unstated time after operation.—M. J. E.


Case report with extensive review of the literature. The signs and symptoms caused by the metastatic foci often overshadow the primary lesion. A significant incidence of Krukenberg tumor of the ovary has been noted, and sometimes blood dyscrasias from metastatic involvement of the bone marrow.—H. G. W.

Gastrointestinal Tract


A review of the literature reveals reports of 25 carcinoid tumors in unusual locations; i.e., in sites other than the appendix and small intestine. Three additional carcinoids are reported, one in Meckel’s diverticulum, one in the appendix and small intestine. Three additional carcinoids are reported, one in Meckel’s diverticulum, one in the small intestine. Eighteen authentic cases of carcinoma are found reported occurring in children under the age of 15 years, and proximal to the rectosigmoid junction. To these is added a case of colloid carcinoma of the splenic flexure of the colon in a white male of 14, with fatal outcome.—H. G. W.


Case report.—H. G. W.


Preoperative and postoperative medical care and technical procedures are discussed.—M. J. E.


Analysis of the histories of 264 cases of cancer of the stomach shows that responsibility for the failure in treatment due to late diagnosis is divided among the patient (8 months), the patient’s physician (43 months), and the general hospital (1 to 6 months). The profession should abandon its fatalistic attitude towards this disease, due to delay in diagnosis.—H. G. W.


Report of a case successfully operated.—H. G. W.


The increasing incidence of successful resections for cancer of the esophagus has awakened interest in carcinoma of the cardiac end of the stomach. The author discusses the surgical problems, with reports of 15 operated cases, of which 5 were subjected to resection.—H. G. W.


A case report of submucous lipoma of the transverse colon which simulated carcinoma.—H. G. W.


Case report.—H. G. W.


Clinical study of 40 cases.—H. G. W.


Eighteen authentic cases of carcinoma are found reported occurring in children under the age of 15 years, and proximal to the rectosigmoid junction. To these is added a case of colloid carcinoma of the splenic flexure of the colon in a white male of 14, with fatal outcome.—H. G. W.


Case report.—H. G. W.


A radical resection was possible in only 25 of 60 patients with cancer of the rectum. Five were alive 3 to 28 months postoperatively.—M. J. E.


Report of the fifteen cases so far operated, with 4 survivors. The plan of the operation is fundamentally sound, but a study of many more patients operated on by the Whipple technic will be necessary before the value of the procedure can be determined.—H. G. W.


Histological criteria, especially grading, seem not to have a direct correlation to the gross appearance of gastric carcinoma, to its clinical course, or to its surgical cura-
bility. Gross classification has proved satisfactory; namely, circumscribed polypoid growth, second, sharply limited noninfiltrating carcinomatous ulcer, and the third and fourth groups of infiltrative carcinomas. The preliminary impression is that gross types I and II often give excellent results after surgical interference, while such treatment is unfavorable for infiltrating types III and IV.—H. G. W.


This is a consideration of the diagnostic difficulties presented by carcinoma of the ampulla, a disease found in 0.2% of all autopsies. In this series 34 cases were in men and 6 in women. Increased awareness on the part of the surgeon of the frequency of the lesion may lead to eventual satisfactory surgical approach.—H. G. W.


Case report with review of the literature.—H. G. W.


This is a general discussion designed for the general practitioner of the diagnosis and surgical treatment of cancer of the colon.—M. J. E.

WAKABAYASHI, O. [Imperial Univ., Tokyo] ZU FALL VON RETIKULOSARKOM IM RETROPERITONEUM 4 JAHRE NACH REXTUMKREBSOPERATION. [A CASE OF RETROPERITONEAL RETICULOSARCOMA 4 YEARS AFTER OPERATION FOR A RECTAL CANCER. Gann, 35:77-79. 1941.

A case is described of a patient who 4 years after surgical removal of a rectal carcinoma was found to have a large reticulosarcoma which invaded the stomach and pancreas, and had metastasized to the liver and retroperitoneal lymph nodes. This case is unusual in that 2 distinct types of malignant tumors were found in the same individual.—P. P. C.


A large fibroma, measuring 25 x 18 x 15 cm., was excised successfully from the region of the transverse colon of a man of 35 years. It was necessary to remove a portion of the attached bowel.—M. J. E.

Liver


In 2,870 surgical and post-mortem malignant tumors 4 cases of primary liver cell carcinoma were encountered, and herewith reported.—H. G. W.


The authors present 5 cases of carcinoma of the gall bladder seen in a period of 1 1/2 years. They recommend early operation for patients with benign disease of the gall bladder and with silent stones, because the risk is small. Only in this way will the incidence be reduced.—G. De B.


A primary parenchymal cell carcinoma of the liver with metastases in the lungs and spleen is described in a boy of 10 years. The patient developed pronounced lipemia and lipid histiocytosis, as evidenced by the presence of large xanthoma-like cells, in the tumor and uninvolved areas of the liver, spleen, lungs, right kidney, and bone marrow. Extreme osteoporosis developed in all bones with subsequent deformities. The osseous changes resulted from defective retention by the body of calcium and phosphorus, possibly secondary to impaired hepatic function, as no hyperparathyroidism, vitamin D deficiency, or disturbed mineral absorption was detectable. Photographs of the patient and tumor, photomicrographs and charts are included in the report.—M. J. E.


In a series of 5,000 autopsies 546 examples of malignant disease were found, of which 9 were cancers of the gall bladder. With the exception of 1 squamous cell cancer all tumors of the gall bladder were adenocarcinomas. Associated cholelithiasis was found in 6 cases. Metastases were usually regional in distribution and present in each case.—M. J. E.

WENTZ, V. B., and K. KATO. [Univ. of Chicago, Chiago, Ill.] PRIMARY CARCINOMA OF LIVER WITH BANTI’S SYNDROME. J. Pediat., 17:165-169. 1940.

A case report of associated Banti’s disease and primary cancer of the liver in a child of 6 years. The patient was known to have had an enlarged spleen since infancy. When 2 1/2 years of age, a diagnosis of Banti’s syndrome was made, but a splenectomy was delayed until the age of 6 years. The child died postoperatively. The liver was cirrhotic and contained multiple nodules of primary parenchymal cell carcinoma. A photograph of the patient and photomicrographs are included.—M. J. E.

Bone and Bone Marrow


A case is reported in which the finding of abnormal cells in the bone marrow on sternal puncture suggested diffuse metastases from malignant melanoma, verified by necropsy.—H. G. W.


The author analyzes 27 cases of periosteal fibrosarcoma diagnosed at the above hospital since 1925. The mortality is about 50%, and the incidence of 5-year survivals is 40%, but all of the patients who survived 5 years or more had lesions of a low degree of malignancy. The clinical, roentgenological, and pathological features and the treatment are also discussed.—G. De B.


In the 4 cases of chordoma involving the base of the skull the tumor in 2 instances was confined to the interior of the cranial cavity and in 2 extended into the vault of the nasopharynx. The symptoms and signs were indicative of an intracranial neoplasm with evidence of multiple involvement of the cranial nerves. Roentgen signs of erosion of the base of the skull are generally present in cases of this type, especially when nasopharyngeal extension has occurred. A histologic diagnosis may be established by examination of a smear of material procured by aspiration through a large gauge hypodermic needle of the nasopharyngeal mass visualized directly with the aid of a nasopharyngoscope. The therapy is difficult, but the course in untreated or irradiated patients may be protracted as the tumor grows slowly. Operation was attempted in the 2 patients with a growth limited to the interior of the skull, but both died postoperatively. One of the patients in the second group was benefited by radium and roentgen therapy, and no treatment was attempted in the other because of the wide extension of the tumor.—M. J. E.


A resection of the sacrum was necessary in this case in order to remove a chordoma situated on the posterior surface of the rectum.—M. J. E.


This is a case report of an osteoma attached to the mastoid cortex. The tumor was readily extirpated.—M. J. E.


Giant cell tumors, central chondroma, and localized sarcoma of bone of low grade malignancy may be treated conservatively by curettage of the tumor and introduction of transplants of bone fragments into the resulting cavity. Mutilating effects of more extensive surgical intervention are thus avoided. Roentgen therapy in many instances has also proved satisfactory. Eight cases are recorded in which conservative treatment was sufficient for a complete cure or temporarily arrested symptoms.—M. J. E.


Temporary improvement for 1 year was achieved by roentgen therapy in a child of 5 years with an Ewing's tumor of the radius and pulmonary metastases.—M. J. E.


A study of 16 cases of synovial sarcoma leads to the conclusion that all varieties exhibit specific characteristics which permit of their identification. An endothelial structure and function is frequently exhibited as gland-like spaces resembling adenosarcoma, as sheets or nests of epithelium-like cells, as neoplastic villi, or as well differentiated synovial borders. A histiocytic structure and function is exhibited by phagocytic properties, sometimes resembling xanthomatosus and giant cell tumors. Synovial sarcoma may also appear indistinguishable from fibrosarcoma unless synovial clefs or small areas of reticuloendothelial evolution are located. Mucin formation is not infrequently exhibited. Clinically, synovial sarcomas in knee joints extend over a long insidious pre-operative course, but synovial sarcomas of other para-articular regions manifest themselves as soft part tumors after an average period of a few to several months. Amputation is the treatment of choice for all synovial sarcomas.—H. G. W.


The author presents the clinical and pathological findings of a patient with primary reticulum cell sarcoma of the spine, and summarizes many of the characteristics of this entity as described by Parker and Jackson (Surg., Gynec. & Obst., 68:45-53. 1939) which this case showed. This patient was a 59-year-old woman who had suffered with back pain for a short time 3 years previously and steadily for 15 months before her death. She finally developed paralysis and loss of sensations in both legs. At autopsy a reticulum cell sarcoma was found involving the bodies of the 12th thoracic and 1st and 2nd lumbar vertebrae. It had invaded the lumbar epidural space and compressed the spinal cord. The para-aortic and iliac lymph nodes contained tumor as well. This tumor was designated as primary in the spine because of the duration of the symptomatology and the comparative bulk of tumor in the spine and in the local lymph nodes.—H. B.


A primary tumor of the tibia is reported as an authentic malignant anaplastic hemangiomata or hemangioendothelium, which metastasized to the tibial artery. The diagnosis of this rare type of tumor of bone can be made only by biopsy, since the roentgenologic appearance simulates that of a benign giant cell tumor. It is suggested that not all tumors of the long bones diagnosed as hemangiomata be regarded as benign, despite the opinion prevalent in the literature.—H. G. W.


This communication records a rare and apparently neoplastic lesion of the dental pulp and a series of cases showing a similarly destructive lesion originating in the parodontal membrane. In a summary of the nature of tumors of the dental tissues, the author points out that the only members of the group which are accepted as showing uncontrolled cell proliferation are the adamantinoma (epithelial tumor of the tooth bud) and the cementoma (parodontoma). The remaining odontomas have been regarded as developmental tumors arising in the course of aberrations of growth. However, two other morbid conditions are suggested as possibly representing neoplastic
change in the cells associated with the mature tooth, and these are described as endodontoma and odontoclastoma.

The paper possesses two features of more general value, viz.: 1. a comparison of two (suggested) symmetrical series, of bone tumors on the one hand (endostoma, periostoma, and osteoclastoma), and tooth tumors (endo-dontoma, parodontoma, and odontoclastoma) on the other; and 2. an interesting discussion of heterogeneity in relation to benign neoplasia in bone. Both topics are treated in considerable detail, and closely reasoned, so that they must be studied in the original.—A. H.


One portion of a Ewing’s endothelial myeloma arising in a rib consisted histologically of vascular spaces lined by elongated cells resembling endothelial cells. In other areas the structure most commonly seen in Ewing’s tumor was present apparently resulting from diffuse overgrowth of these endothelial elements. In still other loci the same type of cell was arranged in rosettes. The histological structure noted first with the apparent development of the other histological pictures led the authors to conclude that Ewing’s thesis of the origin of this tumor in vascular endothelium was sustained.—H. B.


The autopsy findings in a case of Ewing’s tumor are presented. The tumor arose in the femur of a 14-year-old boy; there were two fractures at this site. One solitary metastasis was present on the external surface of the base of the right lung. Histologically the tumor consisted of large numbers of pseudo-rosettes between which there was a diffuse growth of polyedral cells; a perithelial arrangement was occasionally noted. There was no specific relation noted between the cells and reticulum fibers. The author feels that Ewing’s tumor is an entity and that the histology of this case is consistent with Ewing’s interpretation of its origin in capillary endothelium.—H. B.


Pain in a patient with multiple vertebral hemangioma was alleviated by roentgen therapy.—M. J. E.


The typical case of multiple myeloma presents a fairly obvious picture, but there may be many variants. The most characteristic finding is the multiple bone lesions which most frequently involve the spine, ribs, skull, and pelvis. The lesions, however, may be absent in any one of these locations. They are small, clean-cut areas of bone destruction. Bence-Jones proteinuria occurs in from 50 to 65% of the cases but may also occur in any disease involving bone marrow including metastatic carcinoma. Nephritis occurs in 70% of the cases. The blood picture is not characteristic; there is usually progressive anemia; and there may be an increase in the serum calcium and a hyperproteinemia. Multiple myeloma must be differentiated from hyperparathyroidism and from the osteolytic type of metastatic carcinoma. A biopsy may frequently be the only means of making an early diagnosis.—E. A. L.


Case report.—H. G. W.


A case of Ewing’s tumor of the lower end of the fibula is presented and some features of the disease discussed.—A. M.


A case of multiple myeloma is reported and discussed. Bone x-rays were negative yet a high serum protein (16.7) and the finding of immature plasma cell elements on spinal puncture justified the clinical diagnosis. Autopsy showed diffuse plasma cell myeloma and a probable reticulum cell sarcoma of the femur.—A. M.


A study of 424 primary malignant tumors of bone encountered at the Mayo Clinic between 1909 and 1934. As to type they were distributed as follows: osteogenic sarcoma, 216; fibrosarcoma, 38; Ewing’s sarcoma, 114;
multiple myeloma, 41; malignant giant cell sarcoma, 7; nonsurgical diagnosis of sarcoma, 8. The 5-year survivals were respectively: osteogenic sarcoma, 20.3%; fibrosarcoma, 30.5%; Ewing’s sarcoma, 21.2%; multiple myeloma, 36%; malignant giant cell sarcoma, 83.3%. Males constituted 68.6%, and 48.8% were less than 30 years old. The femur was involved in 39.3%, the tibia in 14.2%, and the extremities were involved in 62.8%. Although the authors do not believe that trauma is an etiological factor, yet a positive history was given in 46.6%.—H. G. W.


The unusual localization and success of therapy are of special interest in 2 cases of Ewing’s tumor. In both patients a mass was present in the lower jaw producing roentgen evidence of bone destruction. It was possible to resect the involved half of the mandible of 1 patient, but a recurrence developed after 1½ years. Roentgen therapy was now administered. The tumor regressed completely, and the patient appeared symptom-free after 5 years. In this time an independent adenocarcinoma of the prostate was removed. The tumor in the second patient infiltrated the soft tissues of the cheek. As this was deemed inoperable, he received protracted fractionated roentgen irradiation (7,000 r total dose in 7 weeks through 3 portals). The mass gradually disappeared and no tumor was detectable clinically or roentgenographically 5 years later.—M. J. E.


Forty-one cases of solitary myeloma of bone reported in the literature are reviewed, and 4 new cases are added. Every case had a microscopic diagnosis from tissue removed either at biopsy or post-mortem examination. The dorsal spine (9 cases), pelvis (10 cases), and femur (8 cases) were the most frequent sites involved. The ratio of males to females was 3-5 to 1. The average age of the patients was 48. Bence-Jones protein was found in the urine of 9 patients. Two main types of the disease are distinguishable roentgenologically.

The disease may be relatively benign and remain localized or, it may undergo an early spread to form typical multiple myeloma. It is most commonly confused with giant cell tumor of the jaw. The latter, however, is predominantly a lesion of the epiphyseal ends of bone.

Treatment has been surgical, radiological, or a combination of both. Twenty-eight patients were still living at the time of the report and 24 were free from evidence of spread.—E. A. L.


Report of a unique case of hemangioma involving many bones, apparently nonprogressive.—H. G. W.


The tumor in this case was successfully excised.—M. J. E.


The authors record 19 cases. The lower jaw was involved in all but one patient. In the latter the tumor was situated in the upper jaw. Malignant tumors were present in 15 patients. These were advanced, inoperable growths frequently associated with distant metastases, with the exception of a single instance of a primary fibrosarcoma. This was extirpated radically and the patient was tumor-free 6 years later. Of the patients with inoperable growths, 2 had sarcomas apparently primary in the mandible, 1 a metastasis of a gastric cancer, and the remaining squamous cell cancers secondary to the lip or mucous membrane of the mouth. In some instances temporary alleviation was achieved by conservative surgical measures and radiotherapy. Of the group with benign neoplasia, 2 had epulis, and 1 patient was cured by excision of the mass and radium implantation. The second example of epulis occurred in a newborn infant and operation was deferred. A case each of dentigerous and sublingual cyst is included, and these lesions were cured promptly by a simple surgical intervention.—M. J. E.


A case report of an extensive squamous cell cancer in the auditory canal which invaded the middle ear and mastoid process. The tumor was excised radically and postoperative radiotherapy instituted, but the patient died 5 months later of an intracranial metastasis.—M. J. E.


Two cases are reported. The tumors were removed surgically. The paper contains a historical review of the subject, an extensive bibliography with photographs, and roentgenograms.—M. J. E.


A report with autopsy record of a case of plasma cell myeloma involving the liver, spleen, and skeletal system.—M. J. E.

MUSCLE AND TENDON


A total of 78 cases of myoblastoma have been reported to date, to which is added another located in the thoracic wall, the first in this site.—H. G. W.


A fibroma, in which secondary ossification was demonstrable roentgenographically, was excised with ease.—M. J. E.

LEUKEMIA, LYMPHOSARCOMA, HODGKIN’S DISEASE

ORGANIC PHOSPHORUS IN THE BLOOD OF PATIENTS WITH LEUKEMIA. Cancer Research, 1:771-775. 1941.

The administration of subtherapeutic amounts of radioactive phosphorus to 5 patients with leukemia has been followed by an alteration of the organic acid-soluble phosphorus fraction of their blood cells. The administration of nonradioactive phosphorus to 6 patients never was followed by any significant alteration of the organic acid-soluble phosphorus of the blood cells. These same alterations were observed after the administration of very small doses of whole body X-irradiation to 3 patients, and after irradiation of the blood through a precordial port to 3 patients. The amount of radiation delivered by the tracer doses of radioactive isotopes used in metabolism studies cannot be regarded as negligible. It is possible that some of these studies have measured the metabolism following radiation.

—Authors' summary.

APITZ, K. [Path. Inst. der Univ. Berlin, Germany] DIE PARAPROTEINosen. (ÜBER DIE STÖRUNG DES EIWEISS-STOFFWECHSELS BEI PLASMOCYTOM.) [The PARA-

This is an exhaustive general discussion of the metabolic disturbances in patients with plasmocytoma. An abnormal protein or paraprotein is produced by the tumor cells where it is demonstrable intracellularly as hyaline protein droplets (Russell's bodies) or in the form of crystalline deposits. These stain red with Congo red. Deposition of this protein in mesenchymal tissues gives rise to nodules of para-amyloid, which in distinction to amyloid, does not have an affinity for the small blood vessels of organs. The protein content of the blood plasma is increased giving rise to albuminuria. A portion of this excreted protein has the characteristics of Bence-Jones albumin. Nephrotic lesions, tubular atrophy, focal interstitial renal sclerosis, and rarely uremia may follow the chemical changes in the kidney.—M. J. E.

BENECKE, E. [Path. Inst. der Univ. Rostock, Germany] ÜBER LEUKEMISCHE MYELORETIKULOSE MIT ÜBER-
GANG IN RETOThELSARKOM. [LEUKEMIC MYELO-

Two fatal cases of acute myeloid leukemia are described in which the myeloid deposits in the organs were associated with proliferation of reticulum cells. Approximately 25% of the leukemic cells in the circulating blood were monocytes or reticulum cells in various stages of differentiation. The basically neoplastic nature of leukemia is suggested by the sarcomatous character of the reticulum cell proliferation, especially evident in the lymph nodes.—M. J. E.


Culture in vitro of myeloblastic cells of the blood of a patient with fatal acute leukemia revealed the potentiality of the immature cells to develop into mature forms. A short time later the brother of the patient developed achrestic anemia (a blood dyscrasia resembling pernicious and aplastic anemia).—M. J. E.


Biopsy of the tonsillar tissue of a patient with an atypical unilateral lesion resembling tonsillitis disclosed lymphosarcoma. Radiotherapy was administered and the patient was without evidence of disease 2 years later.—M. J. E.


This report points out the frequency of pulmonary lesions in these diseases and to the variability of their form. Roentgenographic evidence of pulmonary involvement was found in 34% of 282 cases of Hodgkin's disease, 12% of 196 cases of lymphosarcoma, 30% of 13 cases of mycosis fungoides, and 11.8% of 135 cases of leukemia.—E. A. L.

GALL, E. A., H. R. MORRISON, and A. T. SCOTT. [Massa-

Histologic studies have shown a distinct variation in structure in follicular lymphoma, differing from that observed in any other type of malignant lymphoma. In only one case was there evidence of transition into what appeared to be another form of lymphoma. The initial symptoms appear at a much later period of life than with the other malignant lymphomas, the prognosis as to duration of life is considerably longer, and constitutional manifestations and visceral involvement are less frequent. The retroperitoneal lymph nodes are more frequently involved, and chylous ascites is relatively frequent. The lesions are more susceptible to radiation.—H. G. W.


A case of unusual localization of lymphosarcoma is recorded. Circumscribed subconjunctival tumors were removed by blunt dissection from the fornices of the upper and lower lids of both eyes. Microscopically these consisted of a diffuse proliferation of lymphocytic cells suggestive of lymphosarcoma. The blood picture was normal, and the liver and spleen appeared unchanged. Two weeks later enlargement of the cervical, axillary, inguinal, and femoral lymph nodes was apparent. The histologic structure of an excised node resembled that of the ocular mass. Roentgen therapy eliminated the glandular involvement.—M. J. E.

NELSON, A. A., and H. J. MORRIS. [Division of Phar-

Among 323 rats used in chronic experiments were found 35 pulmonary sarcomas of the reticulum cell type, originating in the lymphoid accumulations around the large bronchi. The mediastinal nodes and thymus were never the source of the tumors. Thirty of the 35 rats were over 24 months, and the youngest was 467 days. There were also found in the same series 25 spontaneous extrapulmonary malignant and benign tumors.—H. G. W.
Abstracts

A general discussion.—M. J. E.

Report of 3 cases with survival periods of 6, 8, and 11 years, without any evident disease in any of the 3 patients. In one, spontaneous regression occurred after surgical relief of obstruction in a lymphosarcoma of the stomach, and the other 2 were cases of early lymph node resection. None of the patients received adequate x-ray therapy.—H. G. W.

A case of lymphosarcoma of the colon is reported which was remarkable from two standpoints: first, the tumor showed the occurrence of great numbers of lipid storage cells; second, the histologic picture presented features of malignant lymphocytoma and of reticulum cell sarcoma within the same tumor.—H. G. W.

The authors believe that the term reticulum cell sarcoma is at present inexact; it is used to include almost any lymphoid tumor with proliferation of reticular tissue regardless of degree. This has confused the prognosis and radio sensitivity as reported in the literature. They prefer to follow Oberling's criteria (1932): a tumor composed of syncytial or slightly fenestrated masses of protoplasm containing irregularly distributed oval or indented nuclei with 1 or 2 prominent nucleoli and but little chromatin. Mitoses are present but not in great numbers. Occasional tumor giant cells are found. Reticulum fibers as demonstrated by silver stains may form a dense network of fine scattered fibrils, or be absent in very undifferentiated, syncytial tumors.

Their concept is that the cellular reticulum in a lymph node forms the stroma and is also the stem tissue giving rise to lymphoblasts; therefore a tumor of lymphoid cells contains reticulum cells as part of the tumor itself. From a group of 398 lymphoid tumors only 11 examples of reticulum cell sarcomas were found, a lower incidence than is usually reported. A summary of these 11 cases is appended.—H. B.

Two cases of involvement of the nervous system by Hodgkin's disease in association with the common generalized type of invasion are reported. The chief clinical sign in the first patient was a left hemiparesis. There was also evidence of epidural masses involving some spinal roots and the left brachial plexus. Necropsy disclosed invasion of the cerebral dura by Hodgkin's disease, involvement of the right cerebral hemisphere, and multiple areas of softening. The second patient had evidence of a transverse lesion in the region of the sixth dorsal segment and this proved to be a secondary effect of an epidural mass of Hodgkin's disease producing degeneration in the cord.—M. J. E.

ADRENAL

Autopsy on a man of 50 years, who died of a hypertensive crisis and gave a history of comparable attacks during previous years, disclosed a pheochromocytoma of the right adrenal gland.—M. J. E.

A case report of surgical removal of an adrenal medullary tumor is supplemented with details of the pre- and postoperative measures and with a review of the treatment and results in 18 operative cases taken from the literature.—J. B. H.

Report of a case with the original pyelograms and with operative findings 10 years later.—E. A. L.

The pathology of these tumors, and their clinical signs and symptoms are discussed. Five methods of diagnostic roentgenology are used for the localization of renal tumors. They are: roentgenography of the kidneys, pyelography, pneumo-contrast, perirenal injection of oxygen gas, and examination of the colon and stomach for displacement. Mention is made of the radiosensitivity of cortical renal tumors.

Four cases of bilateral hypernephroma have been reported, 3 with post-mortem examinations. The authors add a 4th case, also with a post-mortem examination. Its unusual features were the lack of subjective symptoms referable to the urinary tract, the absence of abnormal urinary findings, and the apparent rapid metastases to the mediastinum with localization of symptoms at that point.—E. A. L.

Report of an adrenal cortical tumor, with a structure resembling hypernephroma, weighing 1,100 gm., causing no endocrinological symptoms, removed successfully.—H. G. W.

This is a case report with the incident finding of a small, 1 cm., pheochromocytoma of the adrenal gland. The patient died of a ruptured dissecting aneurysm of the ascending aorta.—A. M.
A gross and histological description of a highly malignant and widely metastasizing neoplasm of the adrenal medulla in a 66-year-old man is presented. According to the author, a similar case has not been previously reported in the literature.—P. C.


Injection of an extract of one medullary tumor into a female nonpregnant cat indicated that a large amount (67.2 mgm.) of presumed epinephrine was in a 950 gm. adrenal tumor. The tumor was obtained ½ hour after death during an attack of hypertension in a 40-year-old woman.—J. H. B.


A rare case is presented of hypernephroma associated with multiple calculous disease, adrenocortical hyperplasia, and metastatic carcinoma of both adrenals, in a woman with marked virilism and facial hypertrichosis.—H. G. W.


A case report.—G. DeB.


Cortical adenomas were excised from 2 patients with Cushings’s disease. Both died postoperatively of adrenal insufficiency attributable to atrophy of the contralateral gland. The latter finding was corroborated at necropsy. This patient died of a cortical cell carcinoma which metastasized to the liver and lungs. The cortex of the opposite adrenal was distinctly narrowed.—M. J. E.

Pancreas


An unusual case, described by the title. This is the 8th case of carcinoma of the islands of Langerhans, and the 4th with metastases.—H. G. W.


The anatomical position of the pancreas and the superimposition of several organs in this region, each of which may be the site of a neoplasm, make the diagnosis of a pancreatic tumor difficult. Roentgenologic changes in the contour, shape, and position of the stomach and duodenum aid in establishing the diagnosis. These structures usually are displaced forwards and a deformity may be present along the greater curvature of the stomach.—E. A. L.


A case report, with symptomatic cure following removal of the tumor.—H. G. W.


Case report.—H. G. W.


Case report.—E. A. L.


A review of 40 cases, 14 of which were autopsied.—H. G. W.


Operation on 21 patients with hyperinsulinism and resultant hypoglycemia disclosed islet cell tumors in 9. Excellent results were obtained by resection of the growths.—M. J. E.


The authors report an analysis of 32 cases of carcinoma of the pancreas, which was proved either at operation or at autopsy. Contrary to the usual textbook description, the authors found pain to be the most common chief complaint and often the first symptom. In favorable cases, they advise a one-stage radical type of operation with conservation of the external secretion of the pancreas. This consists of a bloc dissection of the head of the pancreas, the adjacent duodenum, and the regional lymph nodes. The transected end of the remaining portion of the pancreas is then transplanted into the posterior wall of the stomach. A cholecystostomy or a choledochojejunostomy establishes a new pathway for the bile, and a gastrojejunostomy is made to reestablish the continuity of the stomach and intestine.—G. DeB.