
A high degree of resistance against transplanted lymphatic leukemia in rats was induced by a prior injection of homologous normal defibrinated blood or embryonic tissue. The embryonic cells from the Wistar strain were just as effective in the production of resistance as those from another strain, the hooded rats. The results were equally as good when the immunizing injections were given subcutaneously as when given intravenously. As the leukemia inoculations were made intraperitoneally, this result would indicate that the resistance depended on a general reaction rather than a local one.—Author's summary.

Tissue Culture


The author studied explants of 37 human tumors. No proliferation of benign forms occurred, and the extent of activity exhibited by malignant types roughly paralleled the histologic and biologic criteria of the degree of malignancy of the tumors. The possibility of utilizing tissue cultures as a diagnostic aid is suggested.—M. J. E.

Clinical and Pathological Reports

RADIATION—DIAGNOSIS AND THERAPY


Hydronephrosis associated with renal neoplasms is a relatively uncommon condition, and its presence may make the pyelographic diagnosis of renal tumor difficult if not impossible. Pelvic tumors may cause hydronephrosis by acting as a ball valve obstruction. Parenchymatous tumors may cause obstruction by a single factor or a combination of several factors: compression of the pelvis by the tumor, displacement of the kidney causing constriction of the pelvic outlet, occlusion of the outlet by tumor debris, retraction and fibrosis of peripelvic tissues, and secondary infection of the pelvic mucosa.

The distinctive pyelographic changes associated with renal tumors are pressure deformities involving one or more calices, displacement of the pelvis, and irregular or ill defined outlines of the pelvis and calices. The characteristic changes associated with hydronephrosis are true dilatation of the pelvis and calices with uniformly regular and sharp outlines, and the presence of an intrinsic or extrinsic obstruction in the ureter or pelvis.—E. A. L.


Whenever conditions permit, the patient is treated first with radium. The usual procedure is to use 40 mgm. of radium (1 mm. platinum filtration) in an intra-uterine tandem and to give 4,000 mg.-hr. in a single application of 4 to 5 days. Twenty-four hours later the vaginal application is made, the dose also being 4,000 mg.-hr. An 800 kv. machine is used for the roentgen irradiation with a 100 cm. target-skin distance. Two anterior suprarepubic and 2 posterior lumbo-sacral ports are commonly used, and, occasionally, 2 ischiococciats. They are not larger than 10 x 14 cm. and at times are 10 x 10 cm. Between 400 and 500 r, measured on the skin, are given to one port a day. The total dose to each port, measured on the skin, has usually not exceeded 3,500 r.—E. A. L.


The paper contains general remarks on the value of preoperative radiotherapy in cases of cancer of the uterine fundus, ovary, testicle, bladder, colon, and breast. Radiation is administered during a period of 10 to 14 days, following which it is necessary to wait for approximately 5 weeks until the skin reactions have subsided. Radiotherapy acts to reduce the size of the tumor mass by destroying neoplastic cells and diminishing the intensity of the inflammatory reactions commonly associated with tumors.—M. J. E.


Roentgen therapy was administered locally to a woman of 49 years with an inoperable carcinoma of the breast and to the ovaries to abolish their activity as the menstrual
cycles were still normal. The primary tumor disappeared completely and evidence of healing was manifest in skeletal lesions interpreted roentgenographically as of metastatic nature. One year later the opposite breast was involved by an extensive cancer and new bone lesions appeared. On the assumption that recovery had taken place in the ovary or minimal activity had been retained a second series of irradiation was given to the ovaries, but the patient died of pulmonary metastases a short time later.—M. J. E.


The mechanics, operation, and physical characteristics of radiation of the Philips Metalix Contact Therapy Unit are described, and its clinical use is illustrated.—E. A. L.


Irradiation of exposed tumors offers the advantages of permitting the administration of large doses and obviating exposure of considerable areas of normal tissue and extensive damage to the skin. Three case reports illustrate the technic, but sufficient time has not elapsed to give an evaluation of the ultimate results. Doses of 2,400 to 3,000 r (120 kv, filter 1 mm. Al, distance 10 in.) were administered in a single exposure immediately following the operative procedure. A sterile cannula was employed to direct the beam. In the first patient irradiation was applied through a suprapubic cystotomy wound to the fulgurated base of an excised papilloma, in the second to the femoral and inguinal areas from which were extirpated metastases of a penile cancer, and in the third to the deep tissues of the neck following excision of a metastasis of a cancer of the mouth.—M. J. E.


In treatment of the cervix two 25 mgm. tubes of radium are placed in the canal and three 20 mgm. boxes in the vagina, one in each lateral fornix and one centrally located over the cervix. The total dose is 6,000 to 8,000 r and is given in 3 treatments, each of 24 hours’ duration, spaced at intervals of one or two weeks. With this method the dose in the lateral pelvic regions varies from 3,300 to 6,600 r depending partly on how high in the fornices the lateral boxes can be packed. There has been a 35.8% 5-year survival rate.

The central vaginal plaque is omitted in carcinoma of the corpus uteri, and an 8 mgm. tube is placed in each cornu. The duration of treatment is the same as in cervical cancer. The dosage in the critical regions in the corpus varies from 2,640 r on the peritoneal surface of the fundus to 6,600 r in the musculature of the fundus and corpus. The 5-year survival rates have been 63.5% in the technically operable cases and 14.8% in the technically inoperable.—E. A. L.


This discussion is based on 160 brain tumors, 45 of which were of the pituitary. The medulloblastomas were the most radiosensitive of the gliomas. The spongioblastomas were somewhat sensitive, the astrocytomas and ependymomas slightly so. The oligodendrogliomas were radioresistant. Of the pituitary tumors the basophil adenoma was the most radioresponsive. Surgery is the method of choice for the chromophobe adenomas. The acidophil adenomas are moderately responsive.—E. A. L.


The mechanical construction and clinical application of a 5 gm. radium pack is described. Brief case reports are presented to illustrate its use.—E. A. L.


Roentgen ray therapy is used first in the treatment of these patients, in the belief that the best that can be hoped from x-ray is reduction in the size of the tumor. A beam of a h.v.l. of 2.7 mm. So. is used. The pelvis is treated through 3 ports, at 120° to each other, one suprapubic and two postero-lateral. One port is treated daily. The posterior-lateral ports receive 400 r, measured in air, daily and the suprapubic port 300 r. The total dose measured on the skin is 4,800 r to the postero-lateral ports and 3,600 r to the suprapubic.

Within a few days after the roentgen therapy has been completed a total dose of 3,000 mg-kr. of radium (2 mm. platinum filtration) is given to the cervical canal and lateral vaginal fornices.—E. A. L.


This paper describes investigations into the distribution and intensity of radiation in the vicinity of the radium source as it is used in the treatment of carcinoma of the cervix and body of the uterus. By using the protractor, the integral table or the dose contour method as described and analyzed the dosage rate of radiation in and around the uterus and cervix can be found and isodose surfaces constructed.—E. A. L.


This is a review of radiation therapy of benign and malignant tumors of the female genital tract. The author feels that radium and x-ray are destructive agents and “stimulating doses” are a fallacy. The limitations of radiation therapy are recorded. The superior role of surgery is upheld in vulvar carcinoma, pelvic node metastases of cervical cancer, as well as endometrial, fallopian tube, and ovarian carcinoma. A bibliography of 18 papers is given.—A. M.


The radiotherapist is frequently called upon to administer radiation to patients with advanced malignant disease for the following reasons: the condition is known to be inoperable but some palliation is expected, for
purely psychic reasons, or for the relief of pain or to check ascites. The results in 100 cases are recorded. The most common lesions in this series were cancers of the ovary, large bowel, uterine cervix, pancreas, and stomach. Histologically the greater number were adenocarcinomas. The tumors were either primarily inoperable or had recurred at least 1 year following an apparently satisfactory resection. Roentgen therapy was administered most commonly with an apparatus of 200 kv., but in some instances radiations at 400 kv. or 1000 kv. were employed. An attempt was made to give an adequate fractionated dosage (total of 3,000 to 4,000 r through several portals), as the result appeared superior to those obtained with smaller amounts of radiation. Radiation sickness occurred in 40% of the patients and produced annoying discomfort. The results frequently proved disappointing—33% of the patients did not survive more than 2 months. Not uncommonly the general condition deteriorated seriously. Eleven of the 100 patients were alive at the time of publication of the report, 6 to 9 years following the institution of roentgen therapy.—M. J. E.


This is a discussion of the technic of preoperative roentgen therapy of breast cancer.—M. J. E.


The classification of carcinoma of the cervix and corpus uteri, methods of treatment with x-ray and radium, and complications from these diseases are discussed.—E. A. L.


The greatest opportunity in this field lies in the education of the public and in the alertness of the physician in the recognition and proper therapy of the precancerous lesion, such as erosions, ulcerations, leukoplakia, and papillomas. Electro-desiccation or local applications of silver nitrate have been effective in such lesions.

Carcinomas of the lip less than 0.5 cm. in diameter are treated with electro-desiccation and removal with scissors. The larger tumors are treated either with electrosurgery, radium mouldage, or implantation of radium needles. The mental, submental, and submaxillary regions are given prophylactic irradiation. Cancer of the mouth is best treated with iradiation. Lymph nodes with metastatic tumor from carcinoma of the mouth are treated with external irradiation, using either radium packs or high voltage x-rays, and interstitial radium needles. There has been a 98% 5-year cure rate in carcinomas of the lip less than 1.5 cm. in diameter; a 68% 5-year rate in the larger ones; and a 48% rate in the ones with palpable nodes.

Twenty-nine % of the carcinomas of the mouth have survived 5 years. In both of these groups the patients who have not been traced or who have died of intercurrent disease are excluded in arriving at the statistics.—E. A. L.


Case records are given of 5 patients with cancer of the breast treated by preoperative roentgen radiation and mastectomy who were tumor-free 4 to 12 years after the conclusion of therapy.—M. J. E.


Report of 4 treated cases in which, despite the fact that the process was much advanced, encouraging results were obtained. Patients not previously operated upon and bearing lesions not yet infected respond best to treatment.—M. D. R.


The characteristics of the radiation are: minimum wave 0.0257 A.; effective length 0.068 A.; half value layer of copper 1.05 cm. An additional filter of 1 mm. lead, 5 mm. iron and 3 mm. aluminum is used for the applications. The focal skin distance is 1.5 meters. The deep dose, measured in the paraffin phantom, is 10 cm. depth and 68% of the total incidental radiation. The patients selected for treatment were cases of lung, mediastinum, esophagus, and rectum carcinoma, all with generalized metastases. The treatment induced no untoward symptoms, the only manifestation being a lowering of the pH of the blood.—M. D. R.


This treatment has lengthened by at least several months or years the life of patients who without it would have been considered hopeless cases. Some of them could even be considered as cured because for more than 2 years after the end of the treatment they showed no symptoms of disease. Among these cases are included 1 case of carcinoma of the pancreas, 2 of adenocarcinoma of the breast, 3 of the bladder, 2 of the prostate, 1 of the uterus, and 1 of the esophagus. In 18 other single cases the clinical condition also seems to suggest a permanent cure but the time elapsed since the end of the treatment is only 1 year or less. All the patients were very advanced cases as shown by the 16 appended photographs in which the lesions are shown before and after treatment.—M. D. R.
This is an analysis of 117 cases of leukemia treated from 1925 through 1938. Fifty-eight were of the lymphogenous type, 58 of the myeloid, and 1 of the monocytic variety.

The enlarged spleen and ribs were irradiated in myelogenous leukemia. In most cases the total white count fell rapidly and continued to do so even after irradiation was stopped. For this reason it is wise to discontinue therapy when a level of 50,000 to 75,000 white cells has been reached. In lymphoid leukemia the various lymph node enlargements were irradiated as well as the liver and spleen if enlarged.

At some period in the disease a refractory stage usually appears, and, when it does, it is customary to use heavier filtration and a greater target skin distance. Total body irradiation may also be employed. It is the best policy not to treat leukemic patients in the absence of symptoms. In this way the appearance of the refractory stage may be postponed.—E. A. L.


Possible dangers associated with the intra-uterine insertion of radium for cancer of the cervix or fundus are likely to be materialized when treatment is undertaken by an inexperienced physician. Details of technic are described and the report contains drawings and roentgenograms.—M. J. E.


This is a general discussion of the principles underlying surgical and radiotherapeutic methods currently employed in the treatment of laryngeal cancer.—M. J. E.


This is a review of the effects of supervoltage roentgen therapy on the skin, blood, mucous membranes, cancer cells, and tissues of the pelvis and a report of the 5-year end results in the primary cases treated with x-ray and radium.

The x-ray factors employed were 800 kv. maximum, 10 ma., filter equivalent to 10 mm. copper, a focal skin distance of 70 cm. and entrance fields varying in size from 300 to 400 sq. cm. Usually two fields were used and a dose of 4,000 to 4,500 r measured with backscatter delivered to each in a period of 28 days.

Desquamation and wet dermatitis appeared 28 days after treatment was started and had healed 3 weeks later. A mild leucopenia was commonly produced but there were no constant effects on the erythrocyte count. Microscopically the tumor cells showed progressive swelling of the cytoplasm and nucleus, loss of regularity of the tumor pattern, bizarre cell forms, multinucleated giant cells, and, later, abundant stroma.

Of the 26 primary cases treated with x-ray and 4,500 mg. of radium, divided into 3 weekly doses, 12, or 46.1%, survived 5 years.—E. A. L.


Various combinations of radiotherapy and conservative surgical measures utilized in the treatment of cancer of the lip and mouth are illustrated by 5 case reports. In the first patient a cancer of the lip was irradiated by means of a radium plaque. In 4 patients tumors of the buccal mucosa, tongue, or soft palate were eradicated with fractional roentgen therapy and interstitial radium needles. In 2 instances irradiation was administered to metastatic nodes in the neck which were exposed surgically. With the single exception of an adenocarcinoma of the palate all tumors were squamous cell cancers. At the end of periods of 3 to 5 years the patients appeared tumor-free.—M. J. E.


In operable and inoperable cases of cancer of the tongue the puncture method of employing radon offers the possibility of obtaining results comparable with those following glossectomy. The authors utilize permanently implanted tubules made of capillary lead tubing containing 5% antimony for the insertion of the radon. The tubules are 2 to 3 mm. in length and contain 0.5 mc. radon. No permanent injury has been observed as they become completely encysted in the tissues. A preliminary surface treatment with radon (250 mc. hrs.) is given. The needles are then inserted at distances of 1 cm. throughout the lesion and numerous weak radiating foci are preferred to several strong foci. The total dose does not exceed 30 to 35 mc. distributed in 60 to 70 tubules. A radium bomb is generally employed in treating metastases in the neck. The results in 40 unselected cases are given. Palpable nodes in the neck were present in 26. Of 12 patients cured for periods varying from 3 to 9 years, 5 had involvement of the cervical nodes. In addition 3 patients were tumor-free for 2 to 4 years, but died of intercurrent disease. Roentgenograms and photomicrographs are included.—M. J. E.


This is a discussion in the development of the clinical use of radium and is accompanied by a brief review of the literature on the use of teleradium and ultra-short wave roentgen rays.—E. A. L.

STONE, R. S., J. H. LAWRENCE, and F. C. AEBERSOLD. [Univ. of California, San Francisco, Calif.] A PRELIMINARY REPORT ON THE USE OF FAST NEUTRONS IN THE TREATMENT OF MALIGNANT DISEASE. Radiology, 35:382-387, 1940.

Twenty-four patients with far advanced malignant disease of the face, neck, and upper chest were treated with fast neutrons. The amount given per treatment varied from 60 n to 275 n. Several of the patients were treated over more than one field but on different days, and some
of the fields were treated more than once, after the first effect wore off. In general, doses of 180 to 200 r administered to 10 x 10 cm. fields produced a moderate erythema which appeared between the 7th and 11th days, reached its peak on about the 21st day, gradually changed from erythema to pigmentation and left little residual change after a few months. There was some decrease in size of all of the primary tumors and in the metastases. The most promising results were obtained in the cervical metastases. Eight patients lived more than 1 year but all still had other tumors. It is emphasized that the treatments given were single erythema doses, not even skin doses, and were not fractionated.—E. A. L.


The roentgen ray beam is directed toward the probable regions of extension and metastasis which are beyond the reach of radium applied to the cervix and uterine canal. There are 3 main sets of lymph channels from the region of the cervix. The first set drains to the nodes adjacent to the external iliac artery. The second group drains to the hypogastric nodes near the bifurcation of the iliac arteries. The third drains posteriorly through the uterosacral ligaments to the sacral nodes beneath the sacral promontory. All of these areas as well as the upper portion of the vagina must be included in the radiation fields. Routinely 2 anterior and 2 posterior fields are used, each usually being 10 cm. wide and 15 cm. long. Right and left lateral fields are added if the patient is more than 20 cm. thick. A strip at least 2 cm. wide is left down the midline anteriorly and posteriorly. The inferior margin of the anterior fields is at the level of the upper limit of the vulvae. The posterior fields are directly opposite. All fields should be checked by films made with the therapy apparatus. When 200 kv. x-rays are used the daily dose is 200 r in air each to an anterior and to the corresponding posterior port. Treatment should be carried to toleration which may be as high as 2,300 or even 2,700 r to each port. When 1,000 kv. x-rays are used the daily dose in air is 300 to 325 r and the total dose is between 3,350 and 3,750 r.—E. A. L.


This is a review of the literature and a report of 68 cases treated in this manner. Needles 60 mm. long, containing 3 mgm. of radium, and 44 mm. long, containing 2 mgm., are used. All have a wall thickness of 0.8 mm. of platinum. Two rows of the longer needles are placed 1.5 cm. apart beneath the breast and upward into the anterior wall of the axilla. Additional needles are placed in each of the other axillary walls. The shorter needles are used in the infra- and supravacular fossae, in the 4 upper intercostal spaces, and in the power part of the breast between the implanted area and the epigastrium.

The total dose has varied between 848 and 32,329 mgm. hr. The healing of the radiation reaction is complete in 4 to 6 weeks. Differentiation between residual carcinoma and postradiation fibrosis in the breast and in the axilla is difficult. Of the 68 patients to treated, 37 are now living.—E. A. L.


This is a review of a series of intramedullary spinal cord tumors in order to show myelographic criteria for differentiating intra- and extramedullary spinal cord neoplasms. The criteria for tumefaction in the spinal cord are a partial block, lateral displacement of the lipiodol, and extension of the displaced lipiodol in beaded columns for several segments of the spinal cord.—E. A. L.


The use of cylinders, with obturators, an eye piece and air compression, for x-ray radiation of tumors of the cervix, rectum, and bladder is described.—E. A. L.


A method of low voltage (90 to 135 kv.) roentgen ray therapy for treatment of skin cancer is presented which is based on the thickness or approximate bulk of the tumor. For lesions that are elevated less than 0.5 cm. above the level of the surrounding normal skin three treatments of 1,000 r each are given on alternate days. A margin of surrounding normal skin from 0.5 to 1.5 cm. wide for tumors 1 to 5 cm. in diameter is included in the irradiated field. Tumors that are elevated more than 0.5 cm. are given 3 treatments of 1,000 r each on alternate days. A liberal margin of normal skin is included. With each technic 1,000 r additional can be given 2 to 3 weeks later to sharply localized fields suspicious of residual tumor.—E. A. L.


The author treated 200 microscopically confirmed cases of carcinoma of the cervix between 1920 and 1934 by radium alone. The 5 year survival percentages for this group, Stages I-IV (League of Nations), were 63, 52, 35, and 0. The technic is described.—A. M.


Examination of tissue from untreated neoplasms of bone shows that benign osteochondromas and giant cell tumors produce little phosphatase. Some osteogenic sarcomas produce little phosphatase, some produce abundant phosphatase which does not enter the circulation readily, but some produce abundant phosphatase which enters the circulation readily and can be measured in the serum. The phosphatase-producing mechanism of most of these tumors is inactivated by radiation therapy when the tissue dose equals or exceeds 4,000 r. Smaller doses cause only irregular or incomplete inactivation. In patients with osteogenic sarcoma having elevated serum phosphatase...
values, the change in phosphatase affords a prompt indication of the effect of radiation therapy. Radioactive phosphorus given by mouth localizes in the portions of tissue of osteogenic sarcoma which contain the most phosphatase. Serum phosphatase determinations indicate the effectiveness of radiation therapy of metastatic tumors of bone only after sufficient time has elapsed for some healing to take place. Determinations of the alkaline and acid phosphatase in the serum of patients with carcinoma of the prostate metastatic to bone make it possible to follow the activity of both the metastatic tumor and the regeneration of bone.—H. G. W.

**SKIN AND SUBCUTANEOUS TISSUES**


The author's review of the literature shows melanoma to be far from rare among negroes. He presents 10 cases from the John Gaston Hospital in Memphis. Twelve cases occurred in white patients during this period, although the latter only represented 27% of the patients. Melanoma appears to occur more frequently in the white race (4:1) but its microscopic appearance and clinical behavior is the same in both races. Eight photographs and a bibliography of 18 papers are included.—A. M.


Neoplastic alteration on the basis of lupus vulgaris is commonly of epithelial origin and associated with long-standing roentgen therapy of the tuberculous process. A case is reported of spindle cell sarcoma which developed in a nonirradiated lupus lesion of the gluteal region. The patient died of pulmonary metastases. Facial lupus had reacted well to irradiation therapy.—M. J. E.


The x-radiation delivered by the Chaoul machine would seem to be almost ideal for the treatment of malignant lesions of the skin. The distribution of dosage within the tissues seems to be identical with that of the gamma rays of radium.—H. G. W.


Case report of melanoma of the skin, with references to similar cases of long latency reported in the literature.—H. G. W.


A case of xeroderma pigmentosum in a 12-year-old boy is described. The case has been under observation for 8 years and numerous squamous cell carcinomas and one basal cell epithelioma have developed.—L. L. W.


Cancer of the lower lip rarely spreads beyond the neck, and treatment should be started before the regional nodes are involved. In cases of early cancer surgery is simple and effective. Small tumors may be extirpated with a cautery knife, larger types by a rectangular excision followed by plastic repair. Radiation appears superior for advanced tumors. Six cases are described.—M. J. E.


Glomus tumors are small benign painful lesions in the skin, occurring also under the fingernails. The author records the first growth of this type in the eyelid. It had appeared 8 years previously, was excised, but recurred. A wide excision was then employed and a cure achieved. Although the normal glomus has not been identified in the eyelid, the histologic character of the excised mass was typical of a glomus tumor.—M. J. E.


The frequency of various forms of histologically verified skin cancers observed during 18 years in a large clinic in Texas is analyzed. The material was from 1,182 patients. Multiple tumors varying from 2 to 12 in number were relatively frequent. Skin neoplasia were uncommon in Negroes and Mexicans, while in white individuals blondes appeared to show a predilection. Histologically there were 647 basal cell cancers, 647 squamous cell epitheliomas, and 140 melanomas. From previous experience in a more northerly climate the author is of the opinion that the incidence of skin cancer is higher in southern regions, especially when prolonged exposure to the sun occurs in a large proportion of the population engaged in agricultural pursuits.—M. J. E.


I. A statistical analysis with respect to the duration and size of the tumors and the age of the patients at onset and at biopsy of the tumor. An analysis was made of data obtained in 581 cases of cutaneous carcinoma. The median duration of basal cell carcinomas (3.5 years) was much greater than that of epidermoid carcinoma (1.2 years). The median size of the two types of tumor was, however, the same (1.9 cm.), indicating that the size, not the duration of the tumor, prompted the average patient to seek hospital treatment. The basal cell tumors developed in a much younger group of patients than the epidermoid carcinoma, the median age for the former being 57.3 years as against 66.2 years for the latter.

II. A statistical analysis with respect to measures of innate and clinical malignancy. Tumors have two distinct types of malignancy, innate and clinical. The innate malignancy is the degree of deviation of the tumor from the prototype. Clinical malignancy is the hazard of the tumor to the life and health of the patient. Most of the measures of innate and clinical malignancy agree that

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epidermoid carcinoma is about 3 times as malignant as basal cell carcinoma, but in spite of its low malignancy the basal cell type recurs in as high a percentage of cases as the epidermoid type.

III. A statistical analysis with respect to site, sex, and pre-existing scars. Epidermoid carcinoma has a marked predilection for the ears, hands, and upper part of the face, whereas the basal cell carcinoma prefers the upper part of the face, the nose, and the ears, in order of frequency. Both types occur with higher frequency in males, especially on the ears. About 16% of the epidermoid carcinomas metastasized to regional lymph nodes, the site of the tumor being apparently of no influence.—H. G. W.


Of 10 sweat gland tumors, 3 showed neoplastic proliferation of the myoepithelium, 1 benign and 2 malignant. The origin of the myoepithelium is discussed, and the conclusion favored that there is probably a borderline region between ectoderm and mesoderm where the cells are endowed with the potentialities of both tissues, and from such cells the myoepithelial tumors arise.—H. G. W.

FEMALE GENITAL TRACT


This is a general discussion of the technic of radiotherapy of cervical cancer.—M. J. E.


The author analyzes 57 cases of histologically proved cervical cancer in women 30 years of age or younger observed at the Barnard Free Skin and Cancer Hospital, St. Louis, Mo. The youngest patient was 18 years of age. Early marriage and pregnancy are contributing factors in the etiology of the condition, as 21 patients in this series had one or more pregnancies before attaining the age of 20. Treatment does not differ from that employed in older age groups, but the results are poorer. Of the 52 patients traced 31 were dead and 21 survived after intervals varying from 1 month to 5 years.—M. J. E.


A standard basis for clinical classification of carcinoma of the cervix is offered because of its practical adaptability.

In group I the disease is clearly localized to the cervix. In group II the growth is doubtfully localized and there is impeded mobility of the uterus. In group III there is invasion of the parametria or lymph nodes but the entire mass is movable. In group IV there is either a frozen pelvis, local dissemination to the bladder, vagina, or rectum, or distant metastases.—E. A. L.


A diagnosis of cervical cancer was first established in a woman of 30 at full term when unexplainable vaginal bleeding prompted a speculum examination. The child was delivered by cesarean section and a panhysterectomy performed. Subsequently a massive pelvic recurrence developed associated with vesicovaginal and rectovaginal fistulas, and the patient died 13 months after the first operation.—M. J. E.


Report of a case in a 33-year-old virgin, with fatal outcome.—H. G. W.


A study of 15 suspected cases, of which 10 were verified, with special reference to diagnosis. The disease was infrequent in colored as compared with white women. The mortality was not influenced by x-ray or radium.—H. G. W.


Report of an inoperable case of adenocarcinoma of the Fallopian tube.—M. J. E.


A case of primary adenocarcinoma of the fallopian tube is presented.—A. M.


A tumor resection was attempted in 2 patients with primary cancer of the uterine tube. The first died postoperatively, the second after 7 months with peritoneal dissemination of the growth.—M. J. E.


A case is reported of a carcinoid arising in stomach tissue which formed part of an ovarian dermoid. This is the 3rd case of carcinoid in an ovarian dermoid and the 14th case of a carcinoid in stomach tissue.—H. G. W.


Analysis of the records of 30 cases, 6 of which survived 5 years or more.—H. G. W.


A case report is given of dergerminoma ovari in a 23-year-old woman who was 3 months pregnant. The right ovary which contained the tumor (13 x 12 x 9 cm.) and the corpora lutea of pregnancy were removed by surgery. Gestation was not disturbed and the patient made an uneventful recovery. Estrogen secretion for the 10 days following operation increased only from 3,000 to 3,500 m. units per liter of urine indicating that the dergerminoma ovari did not influence the hormonal status of the patient.—C. A. P.
A review, to be published as a chapter in book form as “Glandular Physiology and Therapy.” It deals with the endocrine activity of granulosa cell carcinoma, thecoma, luteoma, arhenoblastoma, adrenal ovarian tumors, and thyroid tumors of the ovary. — H. G. W.

A malignant cystic ovarian tumor has been classified, because of its characteristic histologic structure, as belonging in a group probably of mesonephric origin. A comparison of the relatively benign primary tumor and the more malignant recurrence showed that both had a common characteristic histologic structure. — H. G. W.


The androgens had no adverse influence on the male hormone, but recurred when therapy was omitted. A prolonged effect was produced by the slowly absorbed androgens. In 10 with larger fibroids pellets of the former substance in doses of 25 to 145 mgm. were inserted under the fascia lata of the thigh. Hemorrhage was controlled during the period of action of the male hormone, and when therapy was omitted. A prolonged effect was produced by the slowly absorbed pellets. The androgens had no adverse influence on the feminine habitus. — M. J. E.


This paper is a report of a case of pedunculated endometrial cyst, removed vaginally. Such cysts are very rare. Operation on this patient showed endometriosis of the uterine wall and a large ovarian dermoid cyst. — A. M.


The authors reviewed 68 cases of mesodermal mixed tumors of the body of the uterus and classified the cases according to histologic and tissue culture studies. The authors concluded that the pathogenesis depended on multipotential anlagen, not metaplasia.
Clinically, sanguineous discharge and abdominal pain were characteristic. Radical hysterectomy was performed in most cases, but nevertheless, death occurred in 19 of 28 cases which had been followed about 52 weeks after the onset of symptoms. Local metamases were usually found.—H. B.


A report of a case of polyploid adenocarcinoma of the uterus, grade I. The patient had had abnormal vaginal bleeding for 6 years prior to admission.—A. M.


The suggested programs for the treatment of carcinoma of the cervix and of the body of the uterus are presented in some detail in order to establish uniformity in methods and to evaluate their results.—A. De B.


A case of inguinal endometrioma which became more painful and larger with the menses is reported.—G. De B.


General clinical remarks.—M. J. E.


Twenty-four cases are tabulated. Symptoms are atypical and a correct diagnosis is rarely established in early stages. Associated fibroids were present in 14 patients. Hysterectomy and radiotherapy are advised, but the growths are not radiosensitive. No patients survived more than 4 years after the first hospitalization.—M. J. E.


Roentgenograms frequently disclose calcium deposition in tumors of the internal genitalia in females. A small percentage of uterine fibroids contain circumscribed opaque, calcified areas. Of 52 ovarian dermoidos 26 had areas of bone or imperfectly formed teeth. Noncalcified dermoidos may show roentgenographically a less dense inner zone formed of accumulated secretion contrasted with a more dense outer rim of squamous epithelium. Liche deposits were also observed in a single fibroma and cystadenoma of the ovary.—M. J. E.


Clinical aspects of the problem are reviewed.—M. J. E.


Operable cases of cancer of the vulva are best treated by radical vulvectomy combined with bilateral extirpation of the lymph nodes of Scarpa’s triangle. The advantage of this technic over simple vulvectomy is illustrated by 2 groups of patients. Of 16 in the former group 13 had survived for periods up to 5 years, as contrasted with 5 survivals in the latter group for approximately similar periods. Irradiation alone or combined with surgery may give satisfactory results in some cases.—M. J. E.


Electrocoagulation is recommended as the treatment of choice in elderly patients with large cancers of the vulva. Three cases are described in which this procedure produced an excellent temporary local result.—M. J. E.

MALE GENITAL TRACT


Report of a case, with emphasis on the possibility that cases reported as metastasis to the ureter from the pelvic organs may have been by direct extension.—H. G. W.


A case report of a cancer of the prostate which metastasized to the pelvis, vertebral column, ribs, and choroid of the right eye. Radiotherapy had been administered to the primary tumor.—M. J. E.


Cancer of the prostate is usually not diagnosed until some degree of urinary obstruction is present. At that time the malignant process has extended sufficiently through the lymphatic vessels to make complete surgical removal impossible. Transurethral resection of the obstructing tissue and postoperative roentgen therapy are preferred to the more radical prostatectomy. The operative mortality is low and the results are encouraging. Of the 253 patients treated 5 or more years previously with available follow-up records, 74% survived 1 year, 46% 2 years, 31% 3 years, 17% 4 years, and 8.7% 5 years or longer.—M. J. E.


A report of a case of fibromyxolipoma of the spermatic cord is added to the 27 reports listed in the literature, and the total of 247 tumors of all sorts of the spermatic cord.—H. G. W.


Teratoma testis is unique among malignant tumors in that a majority have an absolute x-radiation sensitivity, so that by means of high voltage roentgen therapy the present rate of 5 year controls is 30%. The dissection of the retroperitoneal tissues is superfluous, for if metastases are present the procedure is inadequate. A study of 37 cases with autopsy records shows that finally metastases are both blood and lymph borne as a rule, with involvement of the lungs in 78%; and where the lung is involved the
liver was involved in 75% and the mediastinal nodes in 55%. If there is present a left supraclavicular node there is probably a metastatic chain of nodes along the course of the thoracic duct. The genito-urinary tract was involved in 24%. Abdominal cryptorchidism with teratoma occurred 4 times, or 10.8%. There were 10 cases of embryonal carcinoma with lymphoid stroma, and 9 cases of embryonal carcinoma, or 51.3% of these most radiosensitive types.—H. G. W.


The 13th case of interstitial cell tumor is reported, in a boy of 6 who showed gynecomastia and slight precocious development of secondary sex changes.—H. G. W.


Report of 21 cases, only one of which was in a cryptorchid. One was a chorionepithelioma, which followed trauma. Most of the cases were treated by orchidectomy followed by x-ray therapy, and most of the cases without demonstrable metastases at the time of operation are living and well.—H. G. W.

Urinary System—Male and Female.


The excellent temporary results which may be achieved in cases of advanced cancer of the bladder by a combination of direct local destruction of a sloughing tumor and radiotherapy, or irradiation alone are illustrated by 2 case reports. In the first case roentgen therapy was administered following fulguration of the growth and excision of the superficial portions with the resectoscope. In the second, roentgen therapy was employed for a tumor which recurred rapidly following removal by diathermy. Both patients were symptomatically relieved and cystoscopic examination disclosed complete disappearance of the tumors several months after treatment was concluded.—M. J. E.


The congenital anomaly was not discovered preoperatively. The carcinomatous kidney was removed and the patient appeared in satisfactory condition 9 months later.—M. J. E.


A review of the 6 cases of liposarcoma of the kidney with addition of 1 case, 4 of them being associated with tuberous sclerosis.—H. G. W.


In this monographic publication the author admits the possibility that some lymphosarcomas of the kidneys are primary and not metastatic, and classifies the lymphoid tumors of these organs as primary and secondary; the latter are divided into nodular and diffuse forms. The diffuse forms are further divided into unilateral and bilateral forms, and in the bilateral the author lists the tumoral, the leukemic, and the aleukemic types. The most common sort of neoplasm is the nodular metastatic, either simple or multiple, and affecting one or both organs. These lesions are without symptoms and are diagnosed only at autopsy. The diffuse metastatic form invades a part or the entire organ or may also be unilateral or bilateral. In the former case, despite the diffuse character of the lesion, only the capsule or the cortex is involved, and the author suggests the term "capsular" for them. He also emphasizes the importance of the bilateral diffuse sarcomatosis because of its greater anatomical and clinical interest. This condition is extremely rare—only 15 cases being recorded in the literature—and shows characteristic features. It has been given different names such as round cell infiltrating sarcoma, diffuse lymphomatosis, pseudoleukemia, etc. The disease occurs mostly in children, and is much more frequent in males than in females; it is always fatal. The patients often show signs of localized acute or subacute leukemia, but leukemic changes do not occur in the blood. In these cases the disease may run its entire course in 4 or 5 weeks. Other patients show typical symptoms of lymphosarcoma of the mediastinum, mesentery, digestive tract, etc. or a localized tumor, and in addition show bilateral involvement of the kidneys. The lesion can be diagnosed either clinically or at surgical intervention. The kidneys are much hypertrophied—4 to 5 times the normal size—but keep their normal shape. The capsule is much thickened but not adherent, and the parenchyma becomes discolored, with or without hemorrhage. Microscopic examination shows heavy infiltration by lymphoid like cells with subsequent necrosis of the renal parenchyma. The author thinks that the disease is an intermediate between typical lymphosarcoma and pseudoleukemia, and is most probably induced by a filterable virus. Fifteen cases of diffuse bilateral lymphomatosis are described, some in detail.—M. D. R.


The results and methods of treatment of 445 cases of bladder tumor are presented. An attempt is made to correlate the clinical and pathological findings to establish a basis for choice of treatment. Statistics are presented in two 5-year groups. Twenty eight % of the patients with papillary tumors in the first group remained well over 5 years, while 13% of those with solid infiltrating tumors remained well over 5 years. In the second 5-year period disappearance of papillary tumors was obtained in 43% of cases for periods from 1 to 4 years, but in the non-papillary infiltrating group only 10% were alive and well for periods from 1 to 4 years.—H. G. W.
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