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ABSTRACTS FROM RECENT ARTICLES BY THE PROFESSIONAL STAFF


The newly described clinical entity, Cat-Scratch Disease, is characterized by a localized glandular involvement, frequently related to a cutaneous lesion at the site of a scratch inflicted by a cat. The regional adenitis may proceed to suppuration, with formation of bacteriologically sterile pus, or it may resolve spontaneously without suppuration. Fever and malaise are moderate to absent. Diagnosis is established by a specific skin test with an antigen prepared from the pus from the lymph node of a typical case. The first such case to my knowledge in this area is reported and four additional cases have been seen at the Henry Ford Hospital in 1952.

The skin test utilizes the principle of the original Frei test. Pus from a typical case, diluted one part with five parts isotonic sodium chloride, is heated at 56°C for one hour on two successive days. The test is performed by injection intradermally of 0.1 cc. of this material and read in forty-eight hours, a positive reaction being comparable to the tuberculin test.

Search for an etiologic agent has apparently excluded the known bacteria, fungi, virus and animal parasites and led to the belief that the condition is probably due to an unknown virus. The cat probably transfers the etiological agent only passively. Inoculation by inanimate objects contacted by cats, in the absence of cat scratch, has been recorded, i.e., thorns and wood splinters. Other assumed means of transmission are injury to the skin by a beef bone, mosquito bite, and laceration while butchering pork. Some serologic relationship to the lymphogranuloma-psittacosis group of viruses is suggested by the complement fixation test.

Cat-scratch disease should be suspected in any case of unexplained regional lymphadenitis.


Since March 31, 1950, 82 patients have been accepted for surgical correction of mitral stenosis. The method of Bailey and his associates, commonly called "commissurotomy" was used extensively, although it has been found that an increasing number of valves can be opened by the finger alone. There were five hospital deaths in the first 19 patients and only four in the last 63 patients. Another three patients died several months after discharge from the hospital. The causes of death in these were residuals of cerebral embolism, persistence of regurgitation, and recurrence of stenosis after a partially successful finger fracture. Of the seventy living patients, two are unimproved and the others are considered to have good or excellent results.
The operative technic has been essentially that described by Bailey and his associates. The approach has been through the bed of the resected third rib, with transaction of the second and fourth costal cartilages. A modified rubber glove, with a “sixth finger” added to the region of the thenar eminence has been used to prevent hemorrhage while the guillotine is in the auricle. The knife passes through this finger and a tight ligature can be applied. This glove was designed by Dr. Edward Munnell, Fellow of the Michigan Heart Association.

The presence of mitral regurgitation has been the commonest contra-indication to operation. This has been recognized by the finding of an apical systolic murmur transmitted well into the axilla, marked enlargement of the left auricle and left ventricular hypertrophy. No patient who exhibited marked heaving of the chest from cardiac activity has survived the operation. Apparently, this sign is indicative of left ventricular hypertrophy and valvular pathology other than mitral stenosis.


Formerly, arteriovenous fistulas were treated surgically by allowing a period of time to elapse for the formation of collateral vessels, after which the fistula was excised with quadruple ligation of the involved vessels. While not resulting in gangrene as a rule, such treatment left poor functional results.

A patient was admitted five weeks after a stab wound of the middle of the thigh, with a large pulsating mass under the fascia and a continuous bruit. The diagnosis of femoral arteriovenous fistula with a large false aneurysm was made. Operation was carried out immediately. The femoral artery was exposed through normal tissue at the groin, after which the hematoma was exposed, and a restorative procedure was carried out. Two holes were present in the femoral artery, one of which communicated with an opening in the vein. The two vessels were separated, the opening in the vein was closed with a longitudinal suture, the segment of artery containing the two holes was excised and the continuity of the artery was restored by end-to-end suture, utilizing Potts’ serrated ductus clamps for hemostasis and traction. An excellent functional result was obtained.


"An attempt has been made in this exhibit to show pictorially the most important anatomic, clinical, roentgenographic, electrocardiographic, physiologic and surgical data in the more common operable congenital cardiovascular defects in infants. Particular attention should be directed in each defect to the most important diagnostic procedures listed with the clinical features and physiologic data. It should also be noted that while the diagnostic criteria and operative procedures are given particularly for infants, they are also generally applicable to all ages. The main thesis of this exhibit, however, is that an accurate diag-
nosis can be made even in early infancy and that surgical correction is frequently necessary and may be accomplished safely and successfully in this age group."

A diagram, a typical x-ray, and a sample electrocardiogram are shown: of the normal; the aortic ring; the patent ductus arteriosus; coarctation of the aorta; pulmonary stenosis with closed septum; pulmonary stenosis with auricular septal defect or patent foramen ovale; tetralogy of Fallot; and tricuspid atresia.


In this study, four phases of ovarian vein physiology were evaluated. These include observations of the microscopic anatomy of the vein wall, measurement of the diameter of the ovarian vascular pedicle, estimation of the blood pressure of the ovarian vein at the time of cesarean section, and comparative oxygen-saturation analysis of samples of blood from the veins of the arms, legs, and ovarian vascular pedicle. The pelvic veins were not considered to be a blood depot in pregnancy. These studies presented evidence that the placenta did not function as an arterio-venous fistula as suggested by Burwell.


Cardiac metastases are present in approximately four per cent of all patients with disseminated malignant disease. Over 500 cases of secondary malignancy of the heart have been reported in the literature. Primary malignancy of the heart occurs about one-fifth as often, and a large number of these have been small fibromata or myxoma, both of which are cytologically benign. Twenty secondary and five primary malignancies of the heart have been diagnosed during life. Possibility of such a diagnosis should be entertained in any patient who develops a murmur, pericardial effusion, bizarre recurring arrhythmias, intractable congestive failure, or an unusual cardiac silhouette which cannot otherwise be explained. Postural alteration in murmurs is suggestive.

The case reported is one of a 58 year old woman who had a hysterectomy for sarcoma of the uterus. Seven months later she was re-hospitalized because of an abdominal wall mass, later proved to be metastatic sarcoma. During the latter hospitalization she developed progressively increasing congestive failure and cyanosis, a pulmonic murmur of increasing intensity, an enlarging cardiac silhouette on x-ray (especially the right upper border) and an electrocardiogram of progressively increasing delay in conduction in the right ventricle. She expired suddenly on the 28th hospital day.

Autopsy revealed a very large polypoid mass attached to the right septal myocardium and filling most of the right ventricular cavity; it extruded up through the main pulmonary artery, acting much like a plunger in a syringe. Histologically the cardiac tumor was identical to that in the uterus. Pulmonary metastases were minute.

This is the first reported case of sarcoma of the uterus metastasizing to the heart.

Twenty-eight pregnant patients were studied to determine how these drugs affect the four important physiologic phases of pregnancy. The questions which faced the investigators were: can ovulation and pregnancy occur during or shortly after, ACTH and cortisone therapy? Does ACTH or cortisone therapy adversely influence the hormonal and electrolyte balance of pregnancy? What effect do these hormones have on labor? And finally, what is the effect upon the somatic and mental development of infants of mothers who received ACTH or cortisone during pregnancy?

The amount of ACTH that was administered varied from 40 to 120 mg. daily. Cortisone was given intramuscularly or orally in amounts varying from 12.5 to 300 mg. daily. The largest amount given to an individual patient was 8350 mg. of ACTH and 8010 mg. of cortisone. The duration of administration of these hormones ranged from 2 days to 14 months.

In the dosage used in this study, ACTH and cortisone administered during pregnancy did not: prevent ovulation or future conception; increase the incidence of abortions, miscarriages, or premature labor; alter labor or increase postpartum complications; significantly alter serum potassium or sodium, and plasma chlorides; produce hyperglycemia; significantly elevate blood pressure; cause edema and excessive weight gain; produce or aggravate toxemia of pregnancy; retard somatic or mental development of the infant. However, infants delivered of mothers receiving cortisone may immediately after delivery demonstrate withdrawal symptoms suggestive of hypo-adrenal cortical activity.

AUTOMATIC CASSETTE CHANGER FOR ANGIOGRAPHY. RICHARD F. MCCLURE, HOWARD P. DOUB, and RICHARD E. SHIPLEY, Radiology 60:85, 1953.

In this paper we describe the construction and operational details of an automatic cassette changer which has proved useful in various angiographic examinations. The device is easily constructed from materials which are available to any carpenter and requires no complicated machinery. It uses the standard 10 x 12 inch cassette, does not easily get out of adjustment, and can be built at a fairly low cost. In the development of angiography, many types of apparatus have been designed to accomplish rapid serialization of the examinations. Some of these require special films and darkroom procedures which are not routine in the standard radiographic department.


Twenty-four cases of hereditary capillary fragility are added to the reported cases for a total of ninety-nine patients. Capillary microscopy in five patients failed to demonstrate abnormalities in the morphology of the capillaries. In five patients protamine titrations for the detection of circulating heparinoid substance
gave normal values. Rutin in divided doses of 200-400 mg. every day favorably influenced the bleeding tendency in some cases. Examples of thrombocytopenic purpura (Glanzmann’s disease) were not encountered.


We have reported 8 additional cases of intractable pain in upper levels treated by medullary spinothalamic tractotomy. We feel that this is the preferable surgical procedure for treating intractable shoulder-arm pain. We believe that the experiences of other neurological surgeons will corroborate our results and that this operation should become the generally accepted procedure for this condition.

The associated trigeminal sensory changes were pointed out to help settle the exact anatomical relationships in this area.

It would be even more desirable if a subtotal differential section of the spinothalamic or of the trigeminal tracts could be made in the medulla which would give long-lasting results.


An attempt has been made to assemble all the data necessary for the physician to make a differential diagnosis on dysphagia. Prevailing surgical procedures and medical management are outlined.


In summary, it may be said that (1) acute pancreatitis is a commoner disease than is usually supposed; (2) there are many phases of the disease other than the classical acute pancreatic necrosis; (3) diagnosis is frequently overlooked because acute pancreatitis is not considered in the differential diagnosis of obscure abdominal conditions; (4) the outstanding diagnostic features of the disease are the severity of the pain and the elevated serum amylase; (5) conservative or non-operative treatment gives the best results; (6) when the attack has subsided investigation of the biliary tract should be done and definite surgery carried out when indicated.


Inhalation therapy with crystalline B₁₂ in physiological saline and lactose dust has resulted in adequate clinical and hematologic responses in 3 patients, 2 presenting severe and one mild grades of pernicious anemia. Detectable amounts of B₁₂ activity in the urine were found after pulmonary administration of this substance.

A comprehensive medical history must be taken and a searching physical examination made in order to reach an accurate diagnosis of the hemorrhagic disease. Proper treatment requires a precise diagnosis. The basic principles of rest, application of cold and pressure are useful in the primary management of a bleeding problem. Systemic therapy depends on an intimate knowledge of the disease pattern.

It is recognized that hemorrhagic diseases frequently manifest themselves in the oral cavity. Many of them can be managed by the oral surgeon but others will require the cooperative assistance of an internist or hematologist.


Dual studies of anemia sickle cells, demonstrating the gamut of structural changes from promeniscocyte to completely sickled forms, were made with the electron microscope. Direct micrographs of individual sickle cells were first obtained. The erythrocytes were then removed from the microscope, shadow-cast with chromium and tridimensional micrographs of the same cells were again obtained in the electron microscope for comparison. Eccentric massing of corpuscular aggregates became manifest at promeniscocytic stages previously dismissed as being merely macrocytic. The next stage of bar-like massing of the hemoglobin and possibly other erythrocytic constituents was confirmed tridimensionally. The later stages of so-called "tactoid" formation in which fusiform cells were observed by direct microscopy did not always prove to be spindle-shaped when studied in the manner herein described. Finally, the bizarre outcroppings of completely sickled cells were studied from the standpoint of constituent, aggregational elevations.


W. H. Hoather has recently reported that radioactive building tiles were found at the Derbyshire Royal Infirmary in amounts sufficient to produce serious elevations of the background count. The purpose of this note is to point out that this hazard is not limited to tile produced in England, but is present in tile produced in large quantities in the United States.


A second instance is reported of an adenomatous jejunal polyp composed of gastric mucosa. Clinically, the lesion had caused intussusception leading to its removal. Historically episodic abdominal complaints, weight loss, anemia, and
melena had occurred during the previous year. While a congenital origin for the lesion cannot be refuted, some of its histological features seem better explained as a consequence of metaplasia.


After the injection of antigen (Shigella paradysenteriae) into the feet of rabbits, cells teased from popliteal lymph nodes of these donor rabbits were transfused into fresh, noninjected rabbits. Specific agglutinins appeared in the sera of recipient animals in relation to varying time intervals between injection of donor and transfer of its lymph node cells. A detailed study of 14 cell types was made showing the reaction of each cell type at certain time intervals, after sensitization.


Utilizing an RCA electron microscope, a platelet enumeration and classification method was developed, thus facilitating studies of platelet morphology. This method is an extension of studies reported previously (Federation Proc. 2:419, 1952) with respect to the platelet effects of beta-propiolactone. Daily morphological changes were investigated in normal women over a 6 month period by classifying platelets according to 12 criteria based on size, density, filamentousness, cell margins and clumping. Simultaneous counts with the optical microscope were also made. Data were expressed both as the percentage of occurrence of the criteria with relation to the total count and as absolute numbers of platelets per cu mm of blood. Cyclic changes in numbers were demonstrated.


With the present interest in B-propiolactone as one of the more promising chemicals for the inactivation of viruses in the presence of blood and plasma, its tissue toxicity and that of its degradation products as studied in the mouse, rabbit and dog are reviewed. B-propiolactone intravenously in the undegraded form produces marked generalized congestive necrosis of the liver parenchyma and degeneration of the tubules of the kidney in the rabbit and dog. B-Chlorpropionic acid in the mouse and dog produces a definite selective action on the lymphoid tissue. Hydracrylic acid shows no tissue toxicity in comparable doses. Blood and plasma treated with beta-propiolactone is injected only after degradation has occurred, hence only the degradation products have to be considered. These are in such relatively small amounts that little tissue reaction results as previously reported. (Supported by A. E. C. grant.)

Extension of studies on the mechanism of nitrogen storage (Federation Proc. 11:184, 1952) to include measurements of rates of protein degradation and protein loss in fasting adult female dogs and in such animals treated with anterior pituitary growth hormone or testosterone propionate form the basis of the present report.


In order to evaluate the use of 70 per cent Urokon Sodium for intravenous nephrography and pyelography, this medium was used for a series of 13 nephrograms and for 100 pyelographic studies. The pyelograms were compared with an equal number obtained with 30 per cent Urokon Sodium.

This concentrated iodine preparation is an excellent medium for nephrography and is superior to the 30 percent preparation in intravenous pyelography, in many instances eliminating the need for retrograde pyelograms.

Allergic reactions to this concentrated iodide may be kept to a minimum by the prophylactic administration of antihistaminic preparations.


Through the employment of the metallic bead chain technique for urethro-cystography, the relationships of the urethra and bladder were investigated. Undistorted urethral configuration was studied in relation to normal and disturbed bladder physiology.

This method of study of the relationships of the urethra and bladder demonstrates several advantages. The patients were studied in the standing position. Roentgen detail was clear in both the anteroposterior and lateral positions. Undistorted urethral configuration was obtained under conditions of rest and strain. The method was easy to learn and simple in application.


A self-calibrating pipette is described, useful in eliminating individual calibration before sterilization.

ABDOMINAL EXPLORATIONS—RESULTS DURING PELVIC OPERATIONS. JEAN PAUL PRATT, Obst. & Gynec. 1:364, 1953.

At the time of a pelvic operation a Gynecologist has the opportunity to explore the whole abdomen. Among the laparotomies performed 1112 were suitable
for exploration of the whole abdomen. Contraindications to exploration were infection, hemorrhage and Caesarian section. The review showed that 530 or 47 per cent of the total number explored had some complication and 582 or 52 per cent had no complication.

The appendix was removed from 633 patients or 57 per cent. The appendix had been removed previously from 389 patients or 35 per cent of all patients explored. Meckel's diverticulum was found four times. Regional enteritis involved the terminal ileum in 2 patients. One carcinoid or argentaffin tumor was found in the terminal ileum. The right half of the colon exhibits so many and wide variations that they do not lend themselves readily to statistical analysis. Embryologic rotation and descent of the colon may be arrested at several levels and numerous examples of this variability were noted. The gall bladder was found to be more frequently diseased than any of the other viscera. The findings were: chronic cholecystitis in 172 patients or 15 per cent; gallstones in 115 patients or 10 per cent; adhesions in 48 patients of 4 per cent and 1 cyst of the gall bladder wall. Inability to palpate stones was not proof that they were not present. The liver showed many variations in size and shape. The spleen varies so much in size that it is difficult to classify it as small, large or average. Adhesions were the most frequent lesion in this organ—20 patients or 1.8 per cent. Tubercles were found 4 times. Usually adhesions were found in spleen and liver in the same patients. In the kidney the most common abnormality was hydronephrosis which was found in 15 patients. Two polycystic kidneys and one solitary cyst were encountered. Congenital absence of one kidney was noted twice and in two patients one kidney had been previously removed. The mobility of the kidney varied widely and since there is no satisfactory standard of normal mobility this feature was not recorded.