reasoner to help me in my practice; I too comprehend and know how to wield those mental forces that aid and cure—and using the lancet, serum, Roentgen ray, and every appurtenance that science brings to light, beside, do not forget but rather all the more rationally employ the word, the "charm" — as Plato puts it — and so am likewise able to create that neurodynamic flow within the mind which, once engendered, itself irradiates into the cells, and pulses on to health!

60 West Eighty-Fifth Street.

PRIMARY CARCINOMA OF THE PANCREAS

IN A PATIENT TWENTY-TWO YEARS OLD

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The following case is recorded not only to emphasize the fact that cancer is by no means confined to the later period of life, but also as an illustration of the difficulty, often enough encountered even by surgeons of wide experience, of distinguishing between two pathologic conditions, the one an inflammatory process amenable to treatment, the other, a most deadly and hopeless form of malignant disease.

To the works of such men as Riedel, Mayo Robson, the Mayos, Deaver and Moynihan, we owe a definite knowledge of chronic interstitial pancreatitis, its etiology and treatment, but we have not, I think, arrived at any sure reading of clinical signs, by which this condition can, with certainty, be distinguished from pancreatic carcinoma. As a matter of fact, an exploratory incision will not always suffice to clear up the diagnosis.

The rule of Courvoisier may enable us with reasonable certainty to exclude gall-stones as the cause of obstructive jaundice, but does not enable us to say whether the jaundice is due to pressure on the duct by malignant growth or by swelling of the pancreatic substance due to inflammation. Although, as William J. Mayo points out, "it is the rule that primary jaundice with the presence of a distended gall-bladder indicates malignant disease— an exception must be made of the not infrequent cases of pancreatitis which do not have their origin in gall-stones, and therefore may have a distended gall-bladder."[1] In this connection, too, the words of Moynihan are instructive. Speaking of pancreatitis, he says, "Its mimicry of carcinoma may be complete. Painlessly and progressively the patient may develop jaundice which continues to deepen until the 'black jaundice' of the older writers can be recognized. There is great loss of weight, and prostration, hebetude and misery, though often the appetite is unimpaired. The liver enlarges and the gall-bladder distends to a degree which allows it to be seen and felt protruding below the rib margin. In accordance with the law of Courvoisier we assume that such a dilatation of the gall-bladder is due to causes other than stone. An examination of the stools might show a complete absence of bile pigment, and this may seem the most conclusive evidence of carcinoma, for a chronic inflammation, however inveterate, rarely causes an impenetrable block to the passage of bile."[2] He goes on to say that such patients should be operated on, however positive the diagnosis of malignancy may be. "There will be benefit in either case. I have patients still living on whom I operated four, six and seven years ago, in the confident belief that they suffered from carcinoma, and would shortly be dead."[2]

REPORT OF CASE

Patient.—Man, aged 22, American, a soldier of the Hospital Corps, U. S. Army, admitted to hospital Aug. 27, 1913. He gave no history of any previous illness except typhoid fever at the age of 9. Denied venereal infection of any kind.

Present Illness.—About a week before admission to the hospital, he noticed the appearance of jaundice, coincidently with "indigestion," poor appetite, irregularity of the bowels, feeling of weakness. He was conscious of a slight pain, or rather a feeling of discomfort in the epigastrium, but no tenderness was apparent in that region. There was no history of trauma. Physical examination showed nothing of any importance except rather marked icterus, no tumor was palpable in the region of the gall-bladder. The urine was negative except for the manifest presence of bile. Stools were white, greasy and offensive. The case was diagnosed and treated as acute catarrhal jaundice. Considerable improvement followed and the patient was returned to duty Aug. 31, 1913, but remained under observation. During the next couple of weeks he still complained of occasional attacks of nausea, the appetite again became poor, the feeling of epigastric discomfort returned and the icterus, which had never entirely disappeared, began to deepen until it was more marked than ever. Sept. 14, 1913, he was again admitted to the hospital. Distention of the gall-bladder could now be recognized by percussion, he complained of intense itching of the skin which kept him awake at night, very poor appetite, acid eructations and nausea after meals, a feeling of great weakness and prostration. The stools showed no tinge of bile.

First Operation.—The patient was operated on Sept. 18, 1913. The gall-bladder was found greatly distended, the head of the pancreas was distinctly enlarged and hard, but not nodular. A single lymph-gland was palpable in the fissure of the liver. The gall-bladder contained a large amount of very dark, thick bile (about 4 ounces were removed by aspiration). When the gall-bladder was opened, the mucous membrane was found normal. Examination of the duct showed nothing to account for the obstruction except the pancreatic enlargement. The gall-bladder was stitched in the wound and biliary drainage established.

Great relief followed this operation, but the results were on the whole disappointing. The jaundice did not disappear, though it was greatly diminished. The appearance of the stools did not change. The bodily nutrition did not improve, though it was fairly well sustained. The patient became very restless and chafed at the confinement to bed. The biliary fistula became extremely annoying to him, and when the operation of cholecystenterostomy was suggested and explained he eagerly requested to have it done, declaring that he would do anything to get rid of the fistula.

Second Operation.—Oct. 18, 1913, I again opened the abdomen, freed the gall-bladder from the abdominal wall and anastomosed it to the jejunum behind the transverse colon by means of a small Murphy button. The head of the pancreas was found to have increased greatly in size since the preceding operation, the body of the gland was also enlarged, and, although there did not seem to be any further involvement of the lymph-glands, the suspicion of a malignant tumor became a practical certainty. The patient made a good recovery from the operation, the wound healed readily, and the stools became dark with bile, but he had frequent attacks of pain and vomiting. Emaciation became more marked; the condition gradually became one of cachexia. The patient was transferred to the Base Hospital at San Antonio, Tex., Nov. 25, 1913, where he died December 16, following.

Necropsy.—From an excellent report of the necropsy, furnished me by Captain C. L. Cole, Medical Corps, U. S. Army, I extract the following:

Left lobe of the liver found markedly enlarged, extending to the level of the costochondral junction of the seventh

1. Mayo, William J.: The Surgical Treatment of Pancreatitis, Collected Papers, The Mayo Clinic, 1905-1909.
2. Moynihan, Berkeley: Brit. Med. Jour., July 26, 1913.

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rib and on the left side to within 1 inch of the thoracic wall. Marked adhesions throughout. Numerous nodules over the anterior surface from which on opening a greenish-yellow pus exudes. Marked adhesions throughout the hypochondrium. Intestines grayish in color with marked enlargement of all mesenteric glands.

Capsule of spleen adherent to its bed.

Large mass involving lower border of liver in the region of the gall-bladder, entirely surrounding the duodenum, involving the head of the pancreas and extending one-half its length to the tail. Tumor attached to the liver enclosing the remains of the gall-bladder.

When sectioned, the tumor has a lemon-yellow color throughout. That portion involving the head of the pancreas shows connective tissue bundles enclosing numerous islands giving very much the appearance of fatty tissue, is firm in consistence. While that portion of the tumor attached to the under surface of the liver appears to be composed entirely of connective tissue with whorls of tissue lighter in color enclosed, this portion of the tumor is less firm in consistence than that portion involving the pancreas.

Section of Liver and Tumor: A distinct line of demarcation exists at the line of junction of tumor with surface of the liver with very slight tendency of tumor cells to invade the liver. At a few points, while the capsule of the liver shows no marked invasion, there are areas just within the capsule of the liver which show some invasion and the capsule at these points is thinner than at others. There is some invasion, however, of the capsule of the liver. The blood-vessels of the tumor, of sufficient size to be readily distinguished, possess distinct thick walls while the smaller vessels possess an endothelial lining. The tumor contains fat.

Section of Tumor Involving Pancreas: The arrangement of the cellular group shows some remains of the glandular tissue of the pancreas with very little connective tissue and these surrounded by round cells showing mitotic figures. Blood-vessels show distinct endothelial lining. Section contains fat, as shown by special technic for the demonstration of that substance; no intercellular substance.

The micro-organism isolated from the abscess of the liver is one of the colon group and evidently formed abscesses subsequently to the occlusion of the bile passages by the tumor growth. The Cammidge reaction was negative prior to the death of this patient.

The condition is primary carcinoma of the pancreas, involving at the time of death, the duodenum, gall-bladder and attached to the under surface of the liver. Secondary multiple abscess formation in the liver, nephritis, degeneration of the splenic tissue.

It is worthy of remark that sugar was not found in the urine of this patient at any time. In view of the history of typhoid in early life, the bile was examined for typhoid bacilli and found negative for this organism.

Our increased knowledge of interstitial pancreatitis gives a chance for a hopeful prognosis in many cases, where formerly the clinical picture would have been regarded as conclusive evidence of a fatal condition. When in such cases operation revealed an enlarged pancreas with obstruction of the common duct and distended gall-bladder containing no calculi, the patient was unhesitatingly pronounced to be beyond the aid of surgery. To-day, however, we are not justified in any such gloomy prognosis, unless there is further and undoubted evidence of malignant disease. On the other hand, cases like the one here reported teach us not to be too confident, even when the evidence is strongly in favor of a benign condition. The extreme youth of this patient would of itself be a strong argument against a diagnosis of carcinoma, yet the necropsy findings leave no doubt that he died of carcinoma originating in the pancreas.

PERIMYOSITIS CREPITANS

REPORT OF A CASE

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A case of perimyositis crepitans came under our observation in Cornell University Medical College Dispensary. On investigation of the literature, the disease was found to be quite rare, as only three cases have been reported.

The first case, which was reported by Günther,[1] was that of a woman, aged 60, with crepitation in the left rectus muscle of the femur, the cause of which was unknown.

The second case was reported by Pauzat.[2] The case cited here was in the three anterior extensor muscles of the leg in a soldier after a long march. Pauzat gives the pathology as an inflammation of the subaponeurotic cell-layer of these muscles with a fibrinous exudate and then crepitus.

The third case was reported by Bräuer.[3] A man, aged 39, received a fracture of both malleoli of the left leg in 1899. After treatment by many doctors for three years because of pain and crepitation in various muscles of both legs, in April, 1902, he came under Bräuer's observation, and on examination, marked crepitus was found over the hamstring muscles of the right thigh, the extensor muscles of the right leg and also crepitus in the muscles of the left leg and thigh, although less marked than on the right side. There were no swellings over the muscles, but there was tenderness on palpation; there was no muscular atrophy. Roentgenoscopy gave a negative result.

Bräuer gives the pathology as an inflammatory process which leads to a deposit of fibrin between the aponeurosis and the muscle, the symptoms of which are crepitation when the muscle is put into action; also a sensation of pain on movement. A report of our case follows:

REPORT OF CASE

E. H., aged 22, a second-year medical student at Cornell, came into the dispensary in order to ascertain the cause of the creaking which he had in different muscles of his body. The family history had no bearing on the case. The patient had had the usual diseases of childhood. There was no venereal history. For the past several years he had done a great deal of concert piano playing which caused him a great deal of physical as well as mental strain. For the past six months he had felt a crepitation in the muscles of the back over the left scapular and vertebral regions, and also in the neighborhood of various joints. This pain did not occur unless the muscles were put on a stretch. Pain occurred only on overexertion. The pain as described by the patient was of a dull aching character, such as occurs in the arm on throwing a baseball when not accustomed to it. He complained of no headache; he was troubled with slight constipation. He gave no history of external violence.

Examination revealed a young man of very good physical build and no appearance of being ill. The lungs and heart were normal. There were no enlargements of the lymph-nodes. On inspection no evidence was found of abnormality as would occur after external violence, nor were there any

1. Günther: Die hörbaren Erscheinungen der Gelenke im gesunden und kranken Zustande, 1854, Düren, Verlag Gislason.
2. Pauzat: In Dums Händbuch der Militärkrankheiten, Äussere Krankheiten, Leipsic, 1896, Besold, p. 72.
3. Bräuer: Mitt. a. d. Grenzgeb. d. Med. u. Chir., 1902, x, 758.

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