varies within considerable limits as to the diagnosis of nystagmus; County Court judges are also much perturbed in such cases. All these facts indicate that some authoritative definition of the disease and its many phases is urgently required.

Whatever opinion is held as to the causation of nystagmus the pathological entity round which this complex revolves is involuntary oscillation of eyeballs, and that, in my opinion, cannot be explained away on a psychological basis. To the elucidation of the cause of this defect in the minor the expert coal chemist should add his quota to that of the doctor.

ACUTE PANCREATITIS: A METHOD OF TREATMENT.

BY

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THE careful study of acute pancreatitis by Mr. Hamilton Bailey in the *JOURNAL* of February 26th (p. 367) recalls my own experience. The chief difficulty in diagnosis arises from not having the condition in mind. I remember well my first experience of this. When engaged with out-patients, I was asked by the house-surgeon to see a case of acute intestinal obstruction just admitted for immediate operation. After examination I came to the conclusion that the case was not intestinal obstruction, but what exactly it was I could not say with certainty. I concluded, however, that the symptoms and signs indicated peritonitis limited to the lesser sac, and that the most likely cause of this was probably a small perforation of the posterior surface of the stomach, although there was no history of previous stomach trouble. When the abdomen was opened the patches of fat necrosis at once proclaimed the pancreatic lesion, which, till then, I had not taken into account.

Surgical writers, of course, advise drainage of the pancreas, and the various anatomical routes of approach to the organ are described. But they are reticent as to what should be done with the pancreas. Many writers appear to imply that it is enough if a drain is introduced down to the pancreas, and the inflammatory exudate present in the lesser peritoneal sac thereby permitted to escape, with precautions against infection of the general peritoneal cavity. But surely that is not enough. The condition of a patient with really acute pancreatitis is desperate; the gland is acutely congested, swollen, and tense, and appears on the high road to total gangrene. The patient is profoundly toxæmic, slowly dying from the absorption of poisons from his pancreas. The obvious indications for treatment are to stop absorption, to relieve tension, and to allow free exit of inflammatory products so that any part of the gland not already dead may have the best chance of recovery. General treatment of a supporting nature will, of course, not be neglected. It appears to me that the only way to fulfil those indications is freely to open up and drain the gland itself. That this can be done with safety and immediate benefit to the patient the following case—the first on which I used the method—will show:

I was called to see a man, aged 30, about 7 o'clock one morning in the early part of 1915. He was healthy, not fat, but given to bouts of drinking, and he had been indulging a few days before I saw him. It was a typical case of acute pancreatitis, and I sent him at once into the Oldham Royal Infirmary, and four hours later, about five hours from the commencement of his illness, opened the abdomen by a median incision. The pancreas was reached through the gastro-colic omentum. It was greatly swollen and deep purple, almost black in colour. My problem was to lay open the glandular tissue freely so as to drain the whole organ efficiently, and to do this without causing undue hæmorrhage or infecting the general peritoneal cavity. I snipped through the peritoneum on the anterior surface of the pancreas, and pushed a finger well down to the middle of the swollen gland. I then worked the finger from one end of the pancreas to the other, allowing it to some extent to follow the path of least resistance, so that eventually there was a kind of trench along the anterior surface of the gland, extending from head to tail, and rather nearer the upper than the lower border so as to avoid injury to the duct of Wirzung. From this longitudinal trench short lateral

branches or diverticula were made at intervals by pushing the finger into the gland tissue, especially at places where it felt softened. The bleeding was free but not excessive, and was easily checked by a temporary gauze pack in the trench. A wide-bore rubber tube was passed down to the pancreas, the gastro-colic omentum snugly adjusted round it with the aid of a stitch, the upper part of the tube wrapped in gauze to shut off the general peritoneal cavity, and the abdominal wall closed above and below the tube. The wound was dressed daily and the pancreas gently mopped through the tube. The patient made good progress without interruption. Five days after operation two sloughs of pancreatic tissue were discharged, each about the size of a walnut. The tube was kept in for about a week and thereafter the wound healed soundly and quickly. No sugar appeared in the urine during his stay in hospital. Some months later he joined the army, served in France, and continued in good health.

I have used this method, or assisted colleagues in using it, in three cases of acute pancreatitis, all of whom recovered. The number is small but quite sufficient to demonstrate that the inflamed pancreas can be freely opened up and drained, not only with safety, but with immediate and lasting benefit to the patient.

AN OPERATION FOR HALLUX RIGIDUS.

BY

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DISSATISFACTION with the functional end-results of the ordinary operations for hallux rigidus has induced me to try what has proved to be a simple, but effective, substitute. When one of the ordinary operations, such as removal of a wedge of bone limiting dorsiflexion or the trimming away of a portion of the head of the metatarsal, is practised, an elastic resistance to dorsiflexion still remains. This is due to the shortened and contracted structures on the plantar aspect of the metatarso-phalangeal joint, particularly the plantar fibres of the lateral ligaments. The spasm of the intrinsic muscles of the great toe, whose tendons are inserted into the base of the proximal phalanx, is also a factor. These features, together with the organization of blood clot and the development of painful adhesions, are responsible for poor functional end-results.

The difficulty being largely and very often wholly extra-articular, it seemed illogical to attack the bony and cartilaginous elements of the joint. An operation was planned, therefore, to divide the shortened structures on the plantar aspect of the joint.

In the first case chosen there was no osteo-arthritis of the metatarso-phalangeal joint, but the rigidity could not be corrected by forced manipulation under the anaesthetic. It seemed eminently suitable, therefore, for what might be termed this intermediate type of operation. A longitudinal incision, one inch long, with its centre over the level of the articulation, was made in the mid-line over the plantar aspect of the metatarso-phalangeal joint of the great toe. The sheath of the flexor longus hallucis was incised in the line of the skin incision and the tendon hooked aside. A strong, narrow-bladed knife was then passed into the joint to divide the capsule on its plantar aspect, along with the tendons of the small muscles attached to the base of the proximal phalanx. The plantar fibres of the lateral ligaments were also divided. Dorsiflexion, full and free, was obtained. The toe was bandaged in moderate dorsiflexion. Active and passive movements were begun on the third day. Full function was present by the time the stitches were removed and full weight-bearing begun on that day.

The operation has been done in a series of twelve cases with equally gratifying results. The patients have all expressed themselves as satisfied and there have been no relapses. Osteo-arthritis was present in three, and a wedge of bone, base upwards, was removed from the dorsal aspect of the joint. An elastic resistance to full dorsiflexion still remained, but disappeared at once on the performance of the small additional procedure here described.

Most cases of hallux rigidus occur in slender feet with a relatively long great toe, and attention must, therefore,