third nerve—are affected, I think mercury and potassium iodide should be freely and energetically administered in all of them. I have thought that such conditions are possibly the result of true syphilitic lesions associated with the post-syphilitic degeneration which tabes probably is, and that the almost invariable improvement which follows the use of anti-syphilitic remedies is evidence in favour of this view. At all events it is, I am sure, in such cases very desirable to push this treatment. In reference to the optic atrophy, that, I fear, if it is tabetic, is a most intractable condition. In the cases in which it is an early symptom, it almost invariably, in spite of all treatment, even the hypodermic use of strychnine, goes on to complete atrophy and consequently total blindness. When, however, it occurs after the disease is well established, especially if ataxy is present, it is nearly always very slow in its advance, and in some cases does not seem to be progressive. I cannot offer any explanation of this—as I believe it to be—fact. Of course, unfortunately the most common tabetic optic atrophy is that which occurs as an early symptom of the disease, or as a rule unassociated with ataxy. In such cases the outlook as regards the patient's vision is extremely bad. And it must also be remembered that such optic atrophy occasionally marks the early stage of general paralysis. I have already indicated the danger in cases of laryngeal crisis and the precautionary operative measures that may be necessary, namely, tracheotomy. In regard to the joint cases, drainage seems to be occasionally beneficial. This is probably more appropriate in cases in which the affected joint is of the upper limb. In cases of affection of the lower limb, while the patient is still able to get about fairly well, one would naturally hesitate to urge any operative measure, as the after-condition of the patient might be considerably worse, and is not likely to be improved.

CASE I.—The first patient I shall speak of is a man of 31, who came complaining of pain in his legs and face, which had been present for some time. Recently, however, he had been alarmed by his gradually diminishing vision, and it was this that finally drove him to seek advice. He has also some difficulty in holding his water. His pupils are inactive to light, and his knee-jerks cannot be elicited. He has marked optic atrophy, with considerably diminished vision, but little or no ataxy. The outlook in his case is, I fear, an extremely bad one as regards his vision. His other symptoms are not serious, and may subside or not become worse.

CASE II.—The next patient whose case I should like to refer to is a man of 37, whose vision began to fail three years ago. He attended Moorfields, but his sight has gradually deteriorated. He suffers also with pains in his head, he has Argyll-Robertson pupil and optic atrophy, and his knee-jerks cannot be obtained. He has no ataxy, and although he has some slight pains (which he attributes to muscular rheumatism in his legs), the severest pains are those in his head. This case is similar to the last in the absence of ataxy and the presence of optic atrophy, but on account of the slower progress of the atrophy, I think there is more hope in his case than that it may stop before sight is completely lost.

CASE III.—The next case is that of a man of 47, who was under the care of my colleague, Mr. Percy Flemming, at Moorfields. He came there in September last with the history of failing vision since the previous October. He had $\frac{1}{2}$ in the right eye, and could not see even fingers with the left. He had Argyll-Robertson pupils and optic atrophy but no pains, and his knee-jerks were active. This is one of those interesting cases in which the diagnosis is one of difficulty between tabes on the one hand and the early stage of general paralysis on the other. It is true no mental symptoms are present and the knee-jerks are likely to disappear, yet at present I am inclined to think the case is more likely to be a commencing one of general paralysis.

CASE IV.—This is a similar case—that of a man of 32, whose sight recently became bad. He was very nervous, his speech a little hesitating. He had unequal pupils, which did not react to light, but his knee-jerks were present. In this case also it is doubtful whether we are not dealing with a tabetic general paralytic in an early stage. I am inclined to think that is the probable diagnosis.

CASE V.—H. R. The next is an interesting example of tabes without ataxy. A man of 35, without pain, with absent knee-jerks, Argyll-Robertson pupils, and optic atrophy. His sight has only now become defective, but the discs are very pale and undoubtedly atrophic.

CASE VI.—F. R. The next is a similar case—a man, aged 57, without knee-jerks, who has a few pains but very atrophic discs. His pupils, however, react normally, and his is a type of the cases I have referred to in which, in spite of the presence of optic atrophy, the pupil reaction is normal.

CASE VII.—G. R. N. The next patient, a man of 38, came first in December, 1900. He then had failing vision, atrophic discs, Argyll-Robertson pupils, but active knee-jerks. At the end of a year, however, the knee-jerks could not be obtained without reinforcement, and even then were exceedingly slight. His sight had still more failed, and he is now blind.

CASE VIII.—E. L. The next case is a very interesting one—a man, aged 51 in 1898, when I first saw him. He came on account of weakness in the legs, and gave a history of dislocation of his leg ten years before. He had remained lame since. There was no accident, nor was the so-called dislocation attended with any pain. On examination it was found that one leg was much shorter than the other, was deformed at the hip, and unduly movable. The head of the femur could be felt moving on the dorsum of the ileum, he had no knee-jerks, and his pupils did not

react to light, the case being undoubtedly one of Charcot's disease of the hip-joint in a case of tabes. The ataxy is very slight indeed.

CASE IX.—E. B. The next case is very similar, only it occurs in a woman. The lameness has been present for only one year. She has ptosis, Argyll-Robertson pupils, no knee-jerks, and no definite ataxy. The deformity at the hip is almost identical with that in the previous patient.

CASE X.—C. I. The last case is that of a man, aged 39, with absent knee-jerks, optic atrophy, and Argyll-Robertson's pupils. He had no ataxy, nor has he now five years after being first seen; but his sight rapidly failed, and he has now been blind for some years. His other symptoms have not become any more marked.

ACUTE NON-SUPPURATIVE PERINEPHRITIS.

By DAVID NEWMAN, M.D., F.F.P.S.G.,

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INFLAMMATION of the cellular and adipose tissue surrounding the kidney has been divided into three varieties, the lipomatous, the sclerosing, and the suppurative. The case about to be described does not, however, come under any of these headings, and must be described as one of acute non-suppurative perinephritis, and as it is the first case of the kind which has come under my notice, either in surgical practice, or, at an earlier period, while I was pathologist in the Glasgow Royal Infirmary, I deem it to be one worthy of placing on record.

Acute Pleurisy lasting for over four weeks, followed by severe pain in the Right Lumbar Region, unassociated with Fever or any Symptoms of Renal Disease. Physical Signs showed great Enlargement in the Right Renal Region.

R. A. was admitted to the Glasgow Royal Infirmary on December 20th, 1901. He enjoyed good health up to eight weeks prior to admission, when, according to Dr. Service, of Mossend, he developed a pleurisy. For this he was treated and confined to the house during four weeks. The pleurisy was said to have started on the right side and then extended to the base of the left lung. The symptoms and physical signs of pleurisy having disappeared, the patient was allowed out for the first time about three weeks prior to admission to the infirmary. On this occasion the patient believes that he "caught a chill," and the next day he complained of severe pain in the right lumbar region, and this continued and increased in severity up to the time of admission. When he was brought into the hospital he looked extremely ill. His face was pale with dark rings under the eyes. The temperature was 99°F , respirations were 20 per minute, and the pulse was 88, and of very low tension. He had a slight cough which he tried to restrain, on account of the pain produced by the act of coughing, and there was a little muco-purulent expectoration. There was very slight dullness at the base of the right lung behind, marked diminution in the respiratory murmur, and also of the vocal resonance and fremitus. The heart was normal.

While sitting or standing the body was bent forward and inclined towards the right side. In bed he lay with the spinal column fixed and slightly deviated to the right, so much so that the lower ribs almost touched the crest of the ilium. The right thigh he kept flexed, and he could not extend it beyond 165° degrees. Every movement cost the patient great pain in the loin, but he did not complain of any pain in the thigh or knee. There was no atrophy of the muscular structures, no feverishness and no pain below the level of the crest of the right ilium. He complained of considerable spontaneous pain, of great tenderness on pressure on the right side of the abdomen, and on palpation the abdominal muscles were found to be very rigid, so that it was only when the patient was placed under the influence of an anaesthetic that the swelling in the renal region could be made out.

On examination of the abdomen under chloroform the whole space between the right costal cartilages and the ilium was found to be occupied by a swelling extending forward to within four inches of the middle line. The liver was pressed downwards and to the left, so that the lower margin was three and a-half inches below the ensiform cartilage. The swelling in the renal region was non-fluctuant, firm, and slightly elastic; there was no very distinct bulging, and no unnatural coloration of the skin over the part. The urine was pale amber colour, slightly acid, the specific gravity was 1.015, and on standing a slight mucous deposit was thrown down. There were no tube casts, no albumen, and no pus or blood found in the urine.

December 21st.—During the night the patient suffered great agony, and the pain was only relieved by hypodermic injections of morphine. During the night the temperature never rose above 99.8° . The patient was placed under an anaesthetic and the lumbar region explored. Surrounding the kidney on all sides there was a huge mass of recently formed inflammatory tissue mixed with fat. Before the kidney was reached the incision had to extend through fully 3½ inches of this inflammatory material. On pressing the hand upwards under the diaphragm the inflammatory induration was found to extend almost to the middle line, and downwards it spread well into the false pelvis. Several incisions were made with the expectation of finding pus, but none was discovered. Drainage tubes were inserted and the wound sutured. The kidney appeared to be healthy and did not contain any calculi.

December 30th.—Since the operation the patient was almost entirely relieved of pain, and a considerable quantity of serous fluid and oil escaped from the wound, but no pus. The temperature remained normal, and the urine typically healthy.

January 8th.—Since last note was made the same kind of discharge has continued to escape, but in smaller quantities than during the first week after the operation. Now the swelling is diminished in size by about one-third, and the patient does not now complain of any pain.

January 24th.—The drainage tubes were kept in until January 17th, when they were removed as the discharge had practically stopped. Now

the swelling is about half the size it was prior to the operation, and the wound being completely healed the patient was dismissed, being now practically well.

April 7th.—Since the patient was dismissed he reported himself on several occasions. When examined to-day the renal swelling is found to be about one-third in size to what it was on admission in December of last year. The patient now complains of no pain, but still has a sense of weight in the lumbar region.

The loose perirenal adipose tissue, situated as it is in direct contact with the kidney, is very liable to secondary infection, either from the kidney or from distant parts. That it is prone to suppuration has long been recognized, but Rayer was the first writer who gave a clear and elaborate description of perinephritis. He classified the disease into three groups, namely:—

(a) Primary perinephritis, including those cases where the inflammation arose independently of any fistulous opening from or disease of the kidney.

(b) Consecutive extrarenal suppuration, or abscesses secondary to inflammation of the kidney, but without any fistulous communication between the kidney and the adipose tissue of the capsule; and

(c) Consecutive extrarenal suppuration, where the inflammation was due to a fistulous communication between the kidney and the perinephric cellular tissue.

After Rayer, valuable contributions to the subject were made by Féron, Parmentier, Lemoine, Hallé, Guérin, Trouseau, Kraetschmar, Duffin, and Dickinson. From statistics it appears that perinephritic abscess is most frequently caused by inflammation extending from within the kidney tissue, and it is shown only in a few instances that suppurative perinephritis originates from other causes. This is not only true of general pyæmia, but the statement is even more applicable to localized infective processes. For example, not only has the disease been traced to septic infection in febrile conditions—such as typhus, enteric fever, and variola—but it has also been shown to arise from purulent absorption in cases of inflammation of the connective tissue surrounding the uterus, vagina, or rectum, succeeding parturition or an operation. Trouseau recorded a case in which the perinephritis was of uterine origin, and where he believed the inflammation to have extended by way of the iliac veins. In cases of puerperal perinephritis, which is by no means uncommon as a complication of pelvic cellulitis, an abscess frequently develops in the neighbourhood of the ovaries or Fallopian tubes, and gradually dissecting its way ultimately spreads itself out between the lumbar muscles and the peritoneum. Operations upon the testicle, or upon the spermatic cord, are liable to excite inflammation of the connective tissue surrounding the bladder, especially at its base, from whence suppuration may extend to the perirenal connective tissue. Cases are upon record in which the disease succeeded operations upon the testicle, urinary bladder, and urethra, or formed a sequence to conditions such as hydrocele, varicocele, or haematocoele. In a similar manner operations upon the perineum, rectum, and uterus, or suppurative disease of the gall bladder, liver, and spleen have caused the accumulation of pus around the kidney.

Koenig narrates a case of excision of the rectum in which the suppuration extended upwards from the pelvic cellular tissue along the posterior wall of the rectum to the perirenal adipose tissue of the left kidney, and spread itself out as far as the descending colon.

In the great bulk of cases of perinephritis consequent to the extension of infective material from distant parts, the disease culminates in suppuration. In a few instances, however, such as the case above described, great induration may take place without any suppurating foci forming. Not infrequently an inflammatory process is induced by local injury, but occasionally it may be attributed to the extension of non-pyogenic infection. That this has been so in the present case is very probable. The patient suffered from an acute pleurisy which spontaneously recovered without going on to empyema. That an infective process extended from the cavity of the thorax to the renal tissue around the right kidney seems the most plausible explanation of the case. The pathologist frequently finds cases of non-pyogenic infection of the pleura where there is great thickening of the connective tissue and adherence of the pleural surfaces without any evidence of purulent infection. One can therefore very

easily understand that when a loose, poorly-nourished tissue, such as the adipose capsule of the kidney becomes infected, rapid and extensive induration may be induced.

THE DIAGNOSIS OF DISEASES OF THE SIGMOID FLEXURE AND RECTUM,

WITH SPECIAL REFERENCE TO THE PROCTOSCOPE.

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THE diagnosis of diseases of the rectum and sigmoid colon rests upon symptoms such as pain, tenesmus, discharges of blood, pus, or mucus, protrusion, and abnormal defæcation, etc., aided by local examination. Here let me urge the paramount need for a local examination in all cases where disease of the lower bowel is suspected, for it is a common thing for me to meet with cases of bleeding at stool which have been treated for piles by their medical attendant, possibly for a considerable period, without ever having been examined, and whom I have found to be suffering from carcinoma in such an advanced state as to preclude any attempt at removal, though it is more than probable that had an examination been instituted at an earlier date the disease would have been recognized, excision performed, and lives saved. Again, two or more separate diseases may co-exist in the same patient; as, for example, hæmorrhoids and carcinoma, fissure and piles, fistula and stricture, and so on.

THE DIAGNOSTIC IMPORT OF SYMPTOMS.

In a normal condition of the part, and except during defæcation, no sensations are experienced in the rectum, which serves only as a canal for the passage of the faeces from the colon to the anus. Until shortly before an evacuation this portion of the bowel is normally devoid of faeces, which do not pass beyond the lower end of the sigmoid. When defæcation takes place the peristaltic movements of the colon are communicated to the rectum, in which definite sensations are experienced. These, however, cease soon after evacuation, to recur only when excited in a similar manner.

In examining a patient complaining of rectal pain it is well to inquire what relation the pain bears to the act of defæcation—whether it be spontaneous or be excited by the act in question, and, in the latter case, whether it precedes, accompanies, or follows expulsion.

Pain.

Pain is a symptom of fissure, of hæmorrhoids, of ulceration, and of certain morbid growths within the rectum. In fissure the pain is very severe and out of all proportion to the size of the lesion, and often lasts for several hours.

In hæmorrhoids the pain varies according to the condition of the parts, that is, whether they are inflamed or not. A thrombotic pile always causes pain, as do internal hæmorrhoids when prolapsed and inflamed.

In ulceration, whether simple or carcinomatous, there is every variety, the amount depending to a great extent on the site of the lesion—less when high up, more when low down in the sphincteric region.

Hæmorrhage.

Hæmorrhage comes next in order of frequency as a symptom of rectal disease. When due to fissure, it is usually insignificant in quantity, and is brought on by straining at stool, as in the case of piles; but in the case of internal hæmorrhoids a considerable amount of blood may be lost. In these cases the blood is usually venous, but may be arterial, and it generally ceases when the piles are returned. Ulceration of any part of the gastro-intestinal canal may be attended with hæmorrhage, in some cases to an alarming extent. The character of the blood will vary according to the time it has been retained in the intestine. Carcinoma of the bowels is usually attended with some hæmorrhage, the faeces being streaked with blood, though at times, owing to ulceration into a vessel, it is severe enough to produce fainting. It must not be forgotten that the stomach is sometimes