TWO CASES OF OBSCURE ABDOMINAL PAIN : OPERATIONS : RESULTS.

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WITH A NOTE BY

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THE publication of the two following cases may be of interest, for both of them represent features which are not uncommonly met with in practice, though seldom described in works on medicine.

Case 1.

A widow lady, aged 53, inclined to corpulency and of somewhat gouty habit, had been for many years the subject of intermittent attacks of acute epigastric pain, accompanied by vomiting, and lasting, as a rule, for two or three days. The first attack had occurred some twenty-three years previously, and had persisted for several weeks. It was of a far severer type than those which succeeded it, and was characterized by jaundice and the usual symptoms of biliary colic. Although no calculus was discovered in the ejecta, the symptoms pointed so clearly to the presence of a gall stone, that both this attack and those which succeeded it were regarded as similar and due to this cause. With the exception of an attack of fever, which was supposed to have been malarial in nature, and which occurred a few years previously, while the patient was living in the neighbourhood of Delagoa Bay, there was no history of illness. In June, 1899, the patient noticed that her water became high coloured and the motions pale. On July 1st she began to feel definitely ill, and experienced considerable pain in the epigastric region, slightly to the right of the middle line. The temperature rose to 105° F.; she became very restless and slightly delirious, but on the following morning was sufficiently well to get up and dress. That evening, however, she slipped as she was walking downstairs, and was very seriously shaken by the fall. On the following day (July 2nd) a doctor was called in, and her temperature was found to be 101° F. She was ordered to remain in bed, and during the following days the fever was remittent. With each rise she became somewhat collapsed and restless, but during the remissions she felt perfectly well. Jaundice, however, soon developed, the stools became clay-coloured and the urine deeply pigmented. On July 16th she was removed from the country, where the illness had commenced, to London.

On July 24th I saw her for the first time. On that day there had been a considerable exacerbation of the symptoms. The temperature had gone up to 105° , and she was in great pain in the area previously described. The pain was of a sharp, shooting character, and went right through to the back. There was, however, no discoverable tenderness on percussion or palpation. The tongue was very dry, and thickly coated. The skin was deeply jaundiced, but not noticeably dry, and the conjunctivae were distinctly yellow. The area of liver dullness was small and not easily defined, owing to the tympanitic distension of the colon. The pulse was 98, there was a slight systolic apical *bruit*, and the urine, specific gravity of 1020, contained bile pigments and bile salts, but no albumen, and the reaction was acid. The motions were colourless, greasy, and very offensive. The patient was ordered to be sponged with iced water, to drink plenty of lemon juice and Vichy water, and to take 30 gr. of trional at night.

The next morning—July 25th—the pain had disappeared, and the face had lost its drawn and anxious expression. The urine was lighter in colour, and the motions, though still light, could hardly be described as clay-coloured. Each motion was carefully strained through gauze, and examined for gall stones, but none were found. The temperature had meanwhile fallen to 100° , and although weak and exhausted there were no symptoms to cause anxiety.

On July 28th a consultation was arranged with Sir William Broadbent and Dr. Arthur Lambert, of Harrow, a member of the patient's family. The question of gall stones with or without the complication of malignancy was fully considered, and an expectant treatment advised. The temperature, however, still continued to be extremely irregular. There were occasional rigors with exacerbations of pain, which usually terminated in free perspiration and great exhaustion. The skin still had a deep icteric tinge.

Since the symptoms showed no tendency to improve and the patient was becoming decidedly weaker, it was considered advisable to consult Mr. Herbert Page with regard to the surgical aspects of the case. Mr. Page's examination, however, failed to discover any definite cause for the symptoms. He did not think there was any deep-seated focus of supuration, neither did he think it was probable that malignancy or malaria complicated the case. The temperature, he thought, might be due to reflex irritation.

On August 7th the temperature again rose to nearly 105° , and large

doses of quinine were administered every four hours. Although this treatment was continued during the next two or three days it appeared to have no marked influence on the temperature.

On August 8th a few fine crepitations (probably hypostatic) were audible at both bases, and there was a short, hacking cough. Now, for the first time, the patient complained of a definite area of tenderness on pressure, immediately above the upper limit of liver dullness, on the right side. On this day I again met Dr. Lambert in consultation, for the difficulties of diagnosis were further complicated by the fact that although the symptoms of obstructive jaundice were rapidly disappearing the general features of the case presented more cause for anxiety. Nervous symptoms were already beginning to develop, slight delirium at night was usual, while the muscles of the face and eyelids twitched during the day; when the temperature was high the exhaustion was extreme, and occasionally the patient became completely collapsed.

A few days later it was thought advisable to consult Dr. Patrick Manson, with the object of clearing up any doubt on the question of malaria. From the character of the temperature chart, and the failure of quinine to control the symptoms, and the general features of the case, Dr. Manson thought that a malarial origin of the disease was quite out of the question, and he gave it as his opinion that the case was probably one of gall stones, possibly of the ball-and-valve type. The nervous symptoms he regarded as of a reflex character. Acting on his suggestion I ordered olive oil to the extent of 6 oz. a day, to be given by the mouth. This treatment was well tolerated until three days later, when the patient was violently sick, and brought up about 5 oz. of greenish-coloured fluid. This, unfortunately, was thrown away before I had an opportunity of examining it, but the nurse herself was convinced that the vomited matter was not oil. She said it was "like ordinary bile." Moreover, the patient herself volunteered the information that it tasted exceedingly bitter. After this attack of vomiting (August 13th) the temperature, for the first time for nearly seven weeks, fell below normal, and in every way the patient felt and looked better.

This improvement, however, was only temporary, the temperature once more began to rise, with the reappearance of all the distressing symptoms, severe pain, exhaustion, and twitching of the muscles of the face.

On August 16th I obtained the consent of the patient and her friends for Mr. Page to make an exploratory incision, since I feared that, if an operation were much longer deferred, the patient's gradually declining strength would seriously interfere with the prospects of recovery. On the following day the patient was operated on by Mr. Page. A free incision was made to the right of the middle line, as nearly as possible over the seat of the pain, with a transverse extension, so as to allow a free opening for examination. The liver was found to be small, and as far as examination could show absolutely normal. The gall bladder was small and quite empty; its walls were soft and thin. The finger was passed along the cystic and common duct without meeting with any unusual thickening or anything to suggest the presence of a foreign body. The advisability of opening the gall bladder and passing a probe down the duct was considered, but, in view of the fact that there was nothing to suggest obstructive jaundice at that time, this idea was abandoned. After making a complete manual examination of all the organs in the abdomen and pelvis, the abdominal wound was sewn up, and the patient returned to bed. By 8 p.m. she was feeling perfectly well and cheerful, and the temperature had fallen to normal. This satisfactory condition continued for eight days. The extraordinary subsidence of the temperature which followed on the operation is one of the remarkable features of the case. On the ninth day, however, there was a sudden and unaccountable rise to 104° , and again another rise five days later. Although the general symptoms which had characterized the case before the operation still continued, the patient was not quite so weak, and seldom showed the extreme degrees of exhaustion which marked the previous rises in temperature. The appetite throughout this period was remarkably good, although there was a distinctly bitter taste in the mouth, and all varieties of food tasted more or less alike. The conjunctivae had now almost completely lost their icteric tinge, and the skin rather than being jaundiced had a slightly bronzed appearance, such as is seen in Addison's disease; and there were patches of almost completely black pigment on the back of the hands and lower part of the arms. The scar of the wound did not, however, show any unusual pigmentation. The pulse, which had been weak throughout the illness, so continued, and the frequency was generally between 96 and 100. The asthenic condition of the patient, combined with the pigmentation, the occasional attacks of vomiting, the nervous symptoms, and the comparatively small loss of bodily weight, suggested to my mind the question of disease of the adrenals. On September 25th I prescribed small doses of arsenic and strychnine, and almost immediately there was an improvement in the symptoms. The black patches of pigment on the arms and the back of the hands completely disappeared, desquamating in large flakes. The temperature very soon became normal, and in a few weeks the patient was sufficiently well to leave the home.

I have described as accurately as possible the course of this very long and anomalous illness, but certain additional points remain to be mentioned. Up to the time of the operation no doubt appears to have existed in the minds of the many medical men who had examined the case that they were dealing with one of obstructive jaundice, either simple or complicated. In spite, however, of the most careful examination, no calculus had ever been discovered in the motions either during the illness described or during previous attacks. And as the operation showed, there was nothing to suggest that the gall bladder or bile ducts had contained a number of calculi corresponding to the frequent attacks which had been regarded as biliary colic. It was further a remarkable fact that anodynes of the nature of phenacetin had a more complete control of the pain and of the temperature which accompanied these attacks than had hypodermic injections of morphine. Although within a few weeks of the time of the

operation all the symptoms indisputably pointed to an obstructive jaundice, nevertheless, after the urine and faeces had become perfectly normal, the main features of the case showed very little alteration. The remarkable subsidence of symptoms which followed immediately on the operation suggested that a functional nervous disturbance was at the root of the matter. But even in the case of a highly-strung and nervous subject as the patient undoubtedly was, it is difficult to see how a functional disturbance without some organic basis could account for all the symptoms of this illness and a high temperature lasting nearly four months.

Case 2.

A widow lady, aged about 57, of gouty habit, had led a luxurious, indolent life for many years. From early childhood her health had been extremely bad, and for the last thirty years her personal record is a continuous history of "cures" at various baths and watering places on the Continent and in England. At one time she suffered from chronic diarrhoea, and at another from constipation, with frequent attacks of severe neuralgic pain in various parts of her body.

When she first consulted me in 1893 she was suffering from pain in the right epigastric region, at the level of the junction of the seventh intercostal cartilage. The pain was intermittent, neuralgic, shooting through to the back, and generally at its severest about three hours after food. The tongue was remarkably clean, and there was no pain or tenderness on palpation in any area of the abdomen, although she sometimes complained of soreness after a particularly severe attack. The character of the diet apparently had no immediate influence on the pain, although, as was only to be expected when carefully regulated, there was a distinct improvement in the general health. Although the patient during the attacks frequently suffered from flatulent distension, neither this complication nor the pain in the epigastrium presented to my mind the picture of an ordinary gouty dyspepsia, the condition for which she had heretofore been treated. The attacks of pain, though fairly consistent as regards the hour, were capricious and irregular in their sequence. They would sometimes manifest themselves for two or three days concurrently, and then disappear for an indefinite period, to revive most unexpectedly and without any apparent exciting cause. As in the preceding case, the patient was of nervous and excitable temperament, and it was possible on certain occasions to trace some association between the incidence of the pain and emotional disturbance, and similarly, in the case previously described, phenacetin and other drugs of this nature exercised a most beneficial influence. Another characteristic of the pain was that vibrations of all kinds, especially those caused by riding in a carriage or bath chair, seemed to precipitate the attacks of pain. As time went on, this association became so marked that the mere act of walking across the room would have a similar effect. In the early part of the year 1899, as the symptoms showed no signs of improving, and under the belief that the general gouty condition was largely responsible for the nervous symptoms, I suggested that she should remain completely at rest in bed for some weeks, and live on an exclusive diet of koumiss. This line of treatment was carried out with marked success, but a few weeks after its discontinuance the old symptoms returned with unabated energy. I arranged, therefore, for a consultation with Sir Hermann Weber, with a view to arranging a systematic course of treatment, and to selecting a suitable spa where the régime could be carried out. He regarded the case as one of gout complicated with catarrh of the stomach, and suggested a course of baths and waters at Harrogate. The patient was consequently placed under the care of Dr. Oliver, who I believe agreed in the diagnosis, and treated her on lines appropriate to this condition. The patient had a severe relapse and was compelled to take to her bed. During this period of her illness she remained under the charge of Dr. Hobson, but the attack proved long, and was further complicated by the development of an anal fissure which necessitated operation. In February, 1903, she was well enough to return to London, although, owing to six months' confinement in bed, she was still very weak and generally in a feeble condition. She was suffering from obstinate constipation and severe rectal neuralgia, which was apparently aggravated by the frequent impaction of clay-coloured masses of scybala in the rectum. By appropriate treatment, these symptoms gradually subsided, and during the following summer she experienced almost complete immunity from pain, with no symptom in any way attributable to gout.

In the following winter, however, the old pain in the epigastric region returned, and the patient visited various health resorts in the hope of obtaining relief. But, in spite of temporary improvement, the pain gradually became more constant and intense, so that in February, 1904, it was thought advisable to consult Sir Lauder Brunton, who gave it as his opinion that the time when the pain came on—namely, about three hours after food—was so suggestive of duodenal ulcer that the case should be treated on this supposition. In conformity with this suggestion, the patient was treated for a time according to Von Ziemssen's method. Little improvement, however, followed, and during the following summer the symptoms remained *in statu quo*, so that in the autumn I again suggested that she should visit a suitable watering place. After trying various seaside resorts, she returned to town, and I arranged a consultation with Dr. Buzzard, who agreed with me as to the neuralgic character of the pain, but felt unable to exclude definitely an organic basis for it, although the latter complication, especially of a malignant type, he regarded as improbable. And so the case continued until after a very severe attack of pain at Bath, which the patient attributed to a stream of water playing on her abdomen while taking a bath, she returned once more to London. The pain now presented a new feature. It was less intermittent and at times exceedingly severe, and it invariably came on whenever she assumed the upright position, as in walking, and it generally made its appearance when she sat up or lay on her right side in bed. She described it as of a tearing and dragging character, shooting through to the back, and when at its severest it almost completely encircled her waist; as she herself described it, she felt in the grip of a tight band. The stomach,

which had always been large, was now apparently increased in size, and there was considerable flatulence; vomiting, however, never occurred. In face of these new symptoms I came to the conclusion that the pain was, at least in part, contributable to the dependent weight of the stomach pulling on some adhesion or ligament connected with this organ. I called Sir William Bennett in consultation, and he regarded the case as one of adhesions connected with the stomach, and suitable for operation. To clear up the question whether the weight of the stomach, by dragging on some adhesion, was the chief cause of the pain, we arranged to feed the patient for a time exclusively by the rectum. The stomach, thus relieved of the weight of contained food, no longer exercised any painful traction and during the entire time, while this treatment was carried out, the patient only had one slight attack of pain. When, however, we again resorted to feeding by the mouth, the pain immediately returned whenever the patient sat up or was exposed to any shaking. By this time Sir William Bennett, being completely satisfied as to the diagnosis, it was decided that an operation should be performed. As an ultimate appeal before operation, Dr. Goodhart examined the case, and agreed as to the desirability of operation, but thought that it was more probable that the trouble was in some way connected with the gall bladder. He suggested that before operation it would be advisable to examine the patient with the x rays. Dr. Mackenzie Davidson took a skiagraph of the upper part of the abdomen, and examined her carefully by means of the screen. Nothing definite was disclosed, except that there was an apparently darkened area in the neighbourhood of the gall bladder.

A few days later an anaesthetic was administered by Mr. Davis, and Sir William Bennett opened the abdomen by a vertical incision in a line which corresponded with the right border of stomach resonance. He immediately came down upon a mass of fairly dense fibrous adhesions which connected the upper part of the duodenum with the right border of the stomach. The duodenum, at its junction with the stomach, was kinked at rather an acute angle, and there were a few additional adhesions which extended to the free border of the liver and to the structures in the neighbourhood. On releasing the adhesions the stomach fell back easily into its normal position. After opening the stomach, exploring and stretching a somewhat narrow pylorus, the openings in both the stomach and the abdominal wall were sutured, and appropriate dressings applied. The patient made an excellent recovery, and for something like two months had almost complete immunity from pain.

At the present time, however, nearly four months subsequent to the operation, the pain is practically as severe as before, although the upright position appears in no way to aggravate it. Any jolting or jarring, such as that experienced when riding in a carriage, nearly always induces an attack.

The diagnosis of this case is of interest because of the diverse opinions which were expressed. They included gastric catarrh, duodenal ulcer, gall stones, gastropyloritis, cancer, fibroid thickening of the pylorus, neuralgia, and even tabes dorsalis, but the evidence of the operation table clearly proved that the stomach, though enlarged, possessed a perfectly healthy mucous membrane and a normal pylorus, with no signs of chronic catarrh, while the peritoneal covering of the duodenum presented no scars such as would have been present in the case of a long-standing ulcer in this situation. The adhesions were clearly not of recent formation, and hence the six months immunity from pain which the patient enjoyed during the summer of 1899 requires some explanation. The pathology of adhesions of this nature is obscure, and I have been unable to find in the literature any reference which throws light on the subject. In this case it is clear that neither gastric nor duodenal ulcer played any part in the pathology. There was, however, one feature of the case which I think is not altogether irrelevant to the question of the causation. For several years the patient had been subject to attacks of painful oedematous swelling of the left leg and sometimes of the right leg as well. This painful oedema had on two or three occasions been independently diagnosed (erroneously, I believe) as gouty phlebitis. The pain, however, had no relationship with the distribution of the veins, there was absolutely no tenderness along their course, neither were they varicose or hard; the pain, moreover, was distinctly neuralgic in character, and was generally associated with pain in other parts of the body, especially in the supra-orbital region, in the rectum, and in the epigastric region. This pain in the leg was always accompanied by oedema, and it yielded to the same anodynes, which were effective when the pain was centred in other parts of the body far more readily than to hot fomentations with glycerine of belladonna, a treatment which was more than once employed under the belief that the pain was due to phlebitis. It is possible that an oedematous condition of the duodenum or pylorus, due to disturbed innervation of the parts and associated with neuralgic pain, comparable to that described as occurring in the legs, might, under certain conditions, lead to a fibrous hyperplasia such as was found to be the case when the abdomen was opened.

NOTE BY SIR WILLIAM BENNETT.

Dr. Pritchard's remarks on this case are so comprehensive

that little remains to be said concerning it. There is, however, one fact in connexion with cases of this kind which is, I believe, undeniable: the longer the symptoms have persisted the more uncertain is the effect of operative treatment, even if an obvious cause for their existence be discovered and removed. Operations, on the other hand, performed within a reasonable time of the onset of the symptoms are, so far as my experience goes, always immediately successful. In other words, those cases which come into the hands of the surgeon early afford immediately satisfactory results; in those, on the contrary, who have for years been subjected to tedious and futile medical treatment, the functions of the parts concerned become so impaired, and the mood of the patients so depressed and pessimistic, that the removal of the original cause of the trouble is not followed directly by the complete relief expected, although in course of time the relief, if not complete, is at all events sufficient to give the patient no cause for regretting the performance of the operation. The earliest period, so far as I have seen, at which any true estimate of the value of the operation can be made in these deferred cases is at least one year. I shall not be surprised to hear that considerable improvement yet ensues in the case described above.

[Note.—Since the above was written, Sir William Bennett's hopes have been partially realized.—E. P.]

NOTE ON THE VALUE OF ROUX'S OPERATION FOR THE RADICAL CURE OF FEMORAL HERNIA.

By J. CRAWFORD RENTON, M.D.,

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SINCE Dr. John Guthrie drew my attention to the operation which he had seen Roux perform in Lausanne for the radical cure of femoral hernia, I have adopted it in ten cases, seven of which I referred to in the BRITISH MEDICAL JOURNAL for September 13th. Having been thoroughly satisfied with the method, I wish to draw particular attention to it. It consists:

1. In making an incision over the crural canal.
2. In isolating the sac, putting a catgut ligature round its neck and cutting it off.

Fig. 1.—Staple passed through Poupart's ligament.

Fig. 2.—Staple fastened into bone.

3. A metal staple is passed obliquely through Poupart's ligament over the crural canal, taking care to avoid the femoral vein, and then it is gently hammered into the pubis.

4. Stitching the skin incision.

Care must be taken not to put the staple in too tightly, which would injure Poupart's ligament, still it must be sufficiently secured to prevent any recurrence of the hernia. The staple remains permanently *in situ*; it causes no irritation, and does not injure the bone. The operation can be easily and quickly performed by any one who follows the above steps. Roux has operated on over 60 cases without the retention of the staple giving rise to the least trouble, or recurrence of hernia.

Fig. 1 shows the staple passed through Poupart's ligament. In Fig. 2 the staple is fastened into the bone.

ON THE TREATMENT OF GLYCOSURIA AND DIABETES MELLITUS WITH ASPIRIN.

By R. T. WILLIAMSON, M.D. LOND., F.R.C.P.,

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ASPIRIN is a salicylate compound (acetyl-salicylic acid), which is stated to be decomposed only when it reaches the small intestine; and it is said to produce none of the toxic symptoms that are sometimes caused by sodium salicylate. For several theoretical reasons it appeared to me to be worthy of trial in the treatment of glycosuria and diabetes mellitus. About three years ago I first gave it in a case of diabetes, but the dose was small and the result indefinite. More recently I have given it in larger doses and with definite results in certain cases.

I have prescribed aspirin altogether in 40 cases of chronic glycosuria and diabetes mellitus. In 11 of these cases I was able to observe the sugar excretion continuously, for a period which was sufficiently long to enable a definite opinion to be formed as to the action of the drug. In the other 29 cases the patients were not treated in hospital, and the sugar excretion could not be carefully watched; hence no very definite conclusions could be drawn as the value of the drug in these cases, though improvement was often reported.

In the 11 cases, which were carefully observed for a long period, the results were as follows: (1) In 4 very severe cases of diabetes the drug did not produce any decided effect on the sugar excretion. (2) In 3 cases of chronic glycosuria the sugar excretion ceased when aspirin was given, the diet being kept unchanged; but though I believe the arrest of the glycosuria was due to the drug, I am prepared to admit that objections may be raised to this conclusion. (3) In 4 cases of diabetes mellitus of the milder form the sugar excretion appeared to be clearly diminished by the aspirin. The 4 cases last mentioned were patients in the Ancoats Hospital for long periods, and the sugar excretion was carefully estimated daily. Brief notes of these 4 cases will be here recorded.

Many cases of diabetes and glycosuria are unsuitable for observations with respect to the action of drugs; some on account of the presence of complications, such as phthisis; some because the disease is of the very severe and acute form; others because the glycosuria is intermittent. The four cases here recorded were free from these objections. The first case recorded was particularly suitable for observations with respect to the action of drugs. The disease was of ten years' duration; it was not progressive; the sugar excretion eight years ago was practically the same as it was just before the aspirin was prescribed (that is, 24 to 25 gr. to the ounce). I have had the opportunity of watching the sugar excretion for many years in this case; apart from the action of drugs or other treatment it has remained practically stationary.

In all four cases recorded the patient was well nourished; the urine gave no reaction with perchloride of iron, and the disease was not of the severe form.

CASE 1. *Mild Form of Diabetes*.—The patient, a woman, aged 65, was admitted into the hospital on May 1st, 1901. She was kept on ordinary hospital diet, including bread and milk in the usual quantities; but sugar, potatoes, and rice pudding were not given, as these had not been taken for years. After the patient had been in the hospital three days the sugar estimations were commenced, and the patient was given no drug except a little diluted peppermint water. The average daily excre-