centres and these associated centres, which for the sake of convenience may (inclusive with the speech centres) be termed the seat of consciousness, intelligence, memory, judgment, and the will, are functionally active. The points of detail which are to be noted in connection with each of these headings are elaborated in the text. I have actually seen a house-surgeon, in a case of aphasia in which the condition of the auditory speech centre was being tested (by requesting the patient to put out his tongue), touch the patient's lips, and in one case put out his own tongue, so as to aid the patient to comprehend what he was being told to do. This gentleman did not seem to understand that the object was not to make the patient put out his tongue, but to see whether he understood the spoken request (the language) addressed to him by the physician. Thomas, Roux, and Mirallic have directed attention to this point. ⁸ *Edinburgh Medical Journal*, July, 1897, pp. 9 and 10. ⁹ With the object of preserving and recording the utterances of aphasic patients, shorthand, or, better still, the phonograph, should if possible be employed. ¹⁰ After the answer has been mentally determined upon, it in all probability (under normal circumstances at least) first takes concrete shape, so far at all events as some parts of speech (nouns) are concerned, in the auditory speech centre and then passes over through the connecting fibres passing between the auditory and motor vocal speech centres to the motor vocal speech centre from which the motor discharge necessary for the production of the spoken answer is emitted. ¹¹ The function of the auditory speech centre, the cell and fibre mechanisms which correspond to the auditory nerve impulses representing spoken words (auditory speech symbols), is, I take it, to bring into connection the cell and fibre mechanisms of which it (the auditory speech centre) is composed with other associated cerebral centres (cell and fibre mechanisms in other cerebral centres, other parts of the cerebral cortex). The popular statement—the auditory speech centre is imperfectly educated—is, I take it, synonymous with the scientific statement that these associated connections have not been opened up and developed. ¹² *Edinburgh Medical Journal*, August, 1897. ¹³ Possibly some patients, affected with word deafness and motor aphasia, who cannot speak spontaneously may be able to read aloud by means of the motor vocal speech centre in the right hemisphere—that is, to read aloud in a reflex or automatic manner, the nervous impulses passing directly from the left visual speech centre to the right motor speech centre. ¹⁴ The condition of the connecting fibres passing between the tactile, gustatory, olfactory centres, and the auditory and visual speech centres. This is tested in the same way—namely, by making the patient touch, taste, smell, etc., some object, and then name or write down the name of the object touched, tasted, smelt, etc., or describe in vocal or written speech the nature of the tactile, gustatory, and olfactory sensations which he experiences. ¹⁵ *Edinburgh Medical Journal*, September, 1897.

TWO CASES OF OBSTRUCTION OF THE SMALL INTESTINE BY GALL STONES.*

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IN the last two years two cases of impaction of the small intestine by gall stones, giving rise to symptoms of obstruction, have occurred in my private practice, and as they have proved very instructive to me, I thought it might interest members of the Branches if I related the cases, and made a few remarks upon them, at this meeting.

CASE I was that of a married clergyman, aged 60, whom I first saw on February 25th, 1895, for slight eczema and an enlarged prostate, which had first manifested itself in the previous November. He had never had jaundice nor passed gall stones, but was of a gouty habit. During the spring and early summer of 1895 he was less vigorous than usual. Walking was more difficult, and he was easily tired. The urine was normal. I saw him again on June 24th, just before he started for the neighbourhood of Whitby for his summer holiday. Soon after his arrival there he began to be troubled with indigestion and constipation, which he attributed to drinking the peaty water of the place. His bladder did not give him serious trouble till after a long drive in a springless trap, which set up an attack of prostatitis. He was for days in great pain, and afterwards had continuous discomfort, nervous irritation, and sleepless nights. After some time a medical man was called in, who at first attributed the enlargement of the abdomen to constipation, but later on, by using a catheter, he found the bladder considerably distended, and drew off an enormous quantity of water. Cystitis followed, and an attack of phlebitis of the legs (from which he had suffered in previous years), and the ankles became swollen, so that he had to lie up. At the beginning of August he decided to return home, his legs being carefully bandaged. I saw him the evening of his arrival, and found him with a foul tongue, anorexia, and the urine containing pus. He was very weak. The bladder was washed out (Dr. Griffiths seeing him with me), and he improved, though very slowly.

Even at this time with the plainest invalid food there were, once or twice, little disturbances of digestion, which it was not easy to account for. But his mouth and tongue, which had been terribly dry for weeks, got better at last, and he began to enjoy his food. He was up for the greater part of the day; all seemed to be going on well, and I left him with Dr. Griffiths, starting for my holiday on September 6th, 1895.

On September 12th he took his first turn round the garden, had dinner downstairs, and seemed particularly bright and well. When he got into bed he had a most terrible rigor, the only one he ever had. At the same time when using the catheter much pus came away, as if an abscess had broken. Dr. Griffiths was afraid another abscess might form, but this

* Read before the combined meeting of the Cambridge and Huntingdon, the East Anglian, and the South Midland Branches, at Cambridge.

did not occur. The temperature went down, and more food and quinine were given. This treatment, however, failed; he was suddenly sick; and on September 24th felt pressure and pain below the liver, where Dr. Griffiths felt a localised enlargement, which afterwards disappeared. The pain gradually moved higher up, and with poulticing became concentrated more and more in one place, which was extremely tender to the slightest touch. The temperature kept at from 101° to 102°, and he had profuse sweats.

In this condition I found him on returning from my holiday on September 27th. The liver was enlarged, but there was no lump to be felt. He was so terribly weak that I at once ordered him champagne, though he had not, in consequence of his bladder trouble, had any stimulants for months. He revived astonishingly; so much so that when on the following day four of us—Sir George Humphry, the patient's son-in-law (who is a medical man), Dr. Griffiths, and myself—saw him in consultation to decide if an operation were advisable the swelling and pain were gone and the temperature was down to 95.8° F. More food and stimulants were now given, and with better success; but on October 6th, without any apparent reason, the liver again swelled, and the temperature went up to 100.8°. This condition soon passed off, and the temperature now kept closer to normal than it had done all along. On two occasions, however, it suddenly went up and as suddenly fell again, but, as in other respects he seemed to be going on well, we ceased to trouble about it.

He was thoroughly enjoying his recovery, was downstairs again, and even taking little walks. On Monday, November 11th, he extended his walk before luncheon a little; in the afternoon saw some callers, said good-bye to them in the hall, and was going down a step or two into his study, when he felt a sudden weakness come over him. (Probably at this moment the gall stone slipped into the bowel.) Later in the day he felt better again, tried to eat his food, and to go downstairs next day. But violent pain drove him to bed, terrible sickness came on, the vomit being almost pure bile, and this continued till his death on November 21st. No medicines seemed to have any effect. On the Sunday afternoon the vomit altered slightly in colour; on the Monday it was decidedly dark, and the smell very bad, slightly faeculent. Dr. MacAlister saw him with me that evening, and it was decided to wash out his stomach. This, however, was not done, as the patient became so very weak. Opium pills were prescribed by Sir George Humphry, who saw him again, and these quieted him, but the sickness did not stop, and on Thursday, November 21st, failure of the heart ended his sufferings.

At the *post-mortem* examination a gall stone was found impacted in the jejunum, which had escaped from the gall bladder through a large opening—about one inch in diameter—into the first portion of the duodenum. No abscess was found in the liver, nor any pus in the neighbourhood of the gall bladder. The stone was about 1½ inch in diameter and nearly spherical. The prostate was enlarged and the urinary bladder inflamed and sacculated. The heart was thin and flabby, and the kidneys were cirrhotic.

CASE II.—The second case was that of a widow lady aged 60 of a gouty habit, but who had never passed gall stones nor had jaundice, and who was in her usual health on Saturday, May 1st, of this year, and dined out that evening.

On the following day (Sunday) she had a feeling of weight in the chest all day, as if of something having disagreed with her. This feeling increased throughout the day, with a sense of general malaise. A draught of hot water followed by a little neat whisky seemed to move the feeling of weight lower down. Throughout Sunday night she was wakeful and uncomfortable.

On Monday, May 3rd—the day I first saw her—she had increased feeling of lassitude and discomfort. A copious draught of hot water was followed by violent vomiting of green matter. This brought some relief, but the distressing sickness soon returned. The feeling at the pit of the stomach had become pain, severe and overmastering, but not amounting at any time to agony. There was a lull of some long intervals in the pain and sickness during the night of Monday, whilst taking some calomel powders (½ gr. each). Before this, after the violent sickness there were great coldness and a sense of collapse.

On Tuesday, May 4th, the sickness throughout the day was more severe than ever, and increasingly so till I injected ½ gr. of morphine subcutaneously at 5.30 P.M. The vomit looked like pure bile. After the morphine injection there was little or no sickness and no pain. Before going to bed I injected another ½ gr. of morphine, and she had beautiful sleep for some hours. She had no food to speak of from Monday morning till 6 A.M. on Wednesday, when she had a nutritive enema of milk and brandy, which sensibly removed the feeling of extreme prostration.

The sleep after this was extremely trying, not, she thought, due to the effect of the morphine. There was very little tendency to sleep, but any dozing immediately produced a distempered condition, and more than dozing a hideous feeling on waking of being surrounded with the most overpowering smell—not taste—of poisonous plants, such as laurel, etc. This occurred severely twice, creating a perfect terror of falling asleep. The next stage was more like vivid nightmare dreams. After that there was no more of the smell and very little disposition for sleep. The nights of Wednesday and Thursday were the two bad ones in this respect. At times a loud report seemed to go off in the top of the head, which caused waking, and pictures or things near were visually altered. Gradually this condition passed away, and power of sleep slowly returned. There was little or no tenderness left in the abdomen by the attack, and by degrees the patient was able to take more and more food. The bowels did not act till 11 A.M. on Friday (May 6th), when, as the result of an enema, the gall stone which I show you was passed. Its weight is 13.72 grammes (nearly ½ oz.); length, 1½ inch, or 4.35 cm.; diameter, 1½ inch, or 2.8 cm.; circumference, 3½ inches.

REMARKS.

Cases of intestinal obstruction from gall stones are so rare (only one having occurred in the Manchester Royal Infirmary between the years 1883 and 1896, during which time 50,000 in-patients had been treated, and only four during twelve

months in some of the largest hospitals in this country, representing 80,000 in-patients and several hundred thousand out-patients, Mayo Robson) that I have ventured to relate these two cases to you. Both of them are interesting, the first in being complicated with cystitis and a general debilitated condition which rendered diagnosis almost impossible; the second in the absence of symptoms until obstruction occurred, and in the rapid and favourable termination of the case. In neither case was there a history of jaundice or colic, and no attack of a similar nature had previously occurred. In the majority of the cases collected by Naunyn undoubted symptoms of cholelithiasis had been present at an earlier period, and of these colic seems to have been the most common. The unfacetted condition of the stones in my cases shows them to have been single, and their size, in my opinion, quite precluded their being passed by the cystic and common ducts, although one the size of a hen's egg has been reported by Rokitsansky as having escaped by this route.

In the second case no indication whatever of any hepatic disturbance existed, and until symptoms of obstruction occurred the patient was quite well. In the first case, however, the indigestion, tenderness, and enlargement of the liver, rigor, and rise of temperature with profuse sweating, suggested liver disturbance, but in the presence of severe cystitis and the absence of more definite symptoms and history, this was thrown out of court. While under Dr. Griffiths's care a localised swelling in the right hypochondrium was felt, but this completely disappeared. Neither hæmorrhage nor tympanites was present in either case at any time.

From the size of the stones in these cases it is evident that they must have ulcerated into the bowel and produced a gastro-intestinal fistula. As you will see from the table before you, which is taken from Naunyn's *Treatise on Cholelithiasis*,¹ gastro-duodenal fistulæ are the most common, and both of my cases were of this kind. The first was proved to be so by *post-mortem* examination, and the sudden onset of the symptoms and the character of the vomit leave me in little doubt about the second. The probable explanation of this increased liability of the duodenum to be affected in this way is its close proximity to the body of the gall bladder, and its comparative immobility.

As in other cases of a similar kind, the character of the vomit was a striking feature. Indeed, in the second case this was the main diagnostic symptom. In both instances it was copious and almost like pure bile, but towards the end in the first case it became slightly stercoraceous. This is quite in accord with the position in which the calculus was found after death. In the cases in which the stone is impacted in the duodenum, the vomit is not feculent, and the symptoms come on rapidly. This seems to have been what occurred in the second case. On the other hand, when impaction occurs lower down in the gut, vomiting appears late, and almost from the first assumes a feculent character. In Case II the shape of the gall stone is well adapted for its rapid passage along the intestinal canal, and this in reality occurred. In Case I, on the other hand, the stone is of a more rounded form, and its smallest diameter is greater than in the second case, and consequently liability to impaction is increased. In contradistinction to the seat of biliary intestinal fistulæ, the place of impaction of gall stones in the bowel is mainly the ileum. This is probably due to the fact that the small intestine gradually narrows as it passes downwards, and the tendency to obstruction therefore increases.

In neither of the two cases was the pain of exceptionally severe character. In the first case the patient felt a peculiar weakness come over him, probably about the time the calculus entered the duodenum. Other points of interest in these cases are the duration of the obstruction, the sex, and the age of the patients. Both patients were 60, a time of life at which gall stones are relatively common. According to Schüller's table intestinal obstruction from this cause is most frequent between the ages of 50 and 70, but when one calculates the number of cases at any age relative to the number of persons living at that age one finds that the frequency of impaction gradually increases with the age of the patient. As regards sex, women are much more frequently affected than men. In Schüller's² 139 cases only 25.9 per cent. occurred in men. My own cases were equally divided;

one was a man, the other a woman. The symptoms of obstruction also lasted the usual length of time. From the table I show you, also taken from Naunyn, you will see that in nearly all the cases the duration of the symptoms was from two to ten days. In my fatal case the symptoms lasted ten days, in the one which recovered two days, although, on account of the constipation (perhaps in part due to the morphine), the stone was not voided until three days later.

The mortality in these cases is considerable. In Schüller's and Dufort's cases it was 56 per cent., in Courvoisier's 44 per cent.—in all 50 per cent. Even operation has not reduced the fatalities. Out of 23 cases collected by Naunyn 16 died, and he states that surgical procedures are not to be generally recommended. Treated medicinally 50 per cent. recover, but doubtless the high mortality after operation is due to this having been undertaken with the patient in a very weak condition. Each case should be treated on its merits. Recovery may occur after the symptoms have existed a week or longer (in one case, Dr. Omond's,³ after stercoraceous vomiting had lasted upwards of three weeks) but it is doubtful whether it is wise to wait longer than a week, as usually the patient rapidly gets weaker, and his power of recovery from operative measures less.

As regards the recurrence of attacks in cases terminating favourably, authorities differ. Naunyn says that true relapses are extremely rare, and he has only been able to find one undoubted case of this kind. Brockbank, on the other hand, states that "patients occasionally recover from one attack of intestinal obstruction only to undergo another, or even two or three more attacks, each brought on by the passage of large gall stones through the small intestine and the ileo-cæcal valve." My own case has remained perfectly well since her recovery from the attack, and it is probable that the fistula has healed.

With regard to gall-bladder colon fistulæ, Mr. Mayo Robson⁴ could only find two specimens in the London museums. I believe Dr. Griffiths will show you one from our museum.

REFERENCES. ¹ New Sydenham Society, 1896, p. 143. ² Schüller, Gallensteine als Ursache der Darmobstruction. *Doctor-Dissertation*, Strassburg, 1891. ³ Quoted by Murchison, *Diseases of the Liver*, 2nd edition, p. 494. ⁴ BRITISH MEDICAL JOURNAL, vol. 1, 1897.

NOTE ON THE TREATMENT OF RELAPSING ACNE.

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It may be postulated that all cases of acne are curable, but an indispensable factor in the cure of many cases is perseverance. The disease may be so inveterate, so disfiguring, so relapsing, so intractable, that cure can only be effected by continuous treatment, extending, it may be, over a year or more. So long as a case continues to improve there is no difficulty in getting the patient to persevere. In chronic cases (I mean chronic in the sense that the papules are indolent, for cases may be chronic in the sense of long-lasting, although the individual lesions are acute or subacute), the results of ordinary treatment are such as to induce continuance. The difficulty lies with the subacute or relapsing cases, and in these the almost invariable reason for the want of the necessary perseverance is the discouragement of both medical man and patient which results if, notwithstanding the faithful observance of directions, fresh acne lesions constantly continue to erupt. Here it is not unlikely that most attempts to use radically curative local applications (containing, for example, sulphur) only aggravate the disease and exhaust the patience which it is a needless part of the scheme of treatment to cultivate.

As is well known in such circumstances, the indication is to subdue this tendency to fresh eruption by soothing the skin and diminishing hyperæmia. The routine method of doing this is by the calamine or zinc lotion of the hospital pharmacopœias, but the tendency of fresh spots to erupt is often so marked that disappointment not infrequently results, and I have known an instance in which such a lotion containing a drachm of glycerine to the ounce acted as an irri-