possible to pass the tube into the stomach and to extract the remainder. The first portion removed is neutral in reaction and turpid from admixture with mucus and food *débris*, while the rest is usually acid. If a test breakfast is employed and the tube passed one hour afterwards, the material extracted from the œsophagus is found to vary in amount from 20 to 60 c.cm., and presents no signs of digestion, while that removed from the stomach exhibits the ordinary characters of semi-digested food, and contains free hydrochloric acid. It is also possible to wash out the dilated œsophagus without any of the fluid passing into the stomach, and a rough estimate may be made of the capacity of the tube by measuring the quantity of fluid it will accommodate. In some of the recorded cases from 150 to 300 c.cm. of water were easily retained in the dilated œsophagus.

Meltzer has drawn attention to the fact that if air is pumped into the stomach, the organ can be completely distended without any escape of gas through the cardiac orifice. This fact seems to favour the assumption that the circular muscle whose function it is to close the aperture is affected with a tonic spasm. On the other hand it has already been observed that however great may be the difficulty of deglutition, there seldom exists much difficulty in passing a tube through the supposititious stenosis. It is, therefore, quite as reasonable to suppose that the dysphagia and subsequent dilatation of the œsophagus may be dependent upon paralysis of the longitudinal fibres of the œsophagus which dilate the cardiac orifice as to imagine a long continued spasm of their antagonists. It is also worthy of notice that it is impossible in these cases to produce reflex vomiting by irritation of the pharynx.

DIAGNOSIS.

The recognition of the acute variety of the disease is seldom attended by any difficulty. The sudden onset of dysphagia, which varies in severity from day to day, and its intimate association with other symptoms of a hysterical nature indicate at once its nervous origin; while the early age of the patient and the absence of a permanent local obstruction to the passage of a bougie are sufficient to eliminate the possibility of an organic stricture of the œsophagus. Chronic cardiospasm in its early stages may easily be confounded with cancerous stenosis or compression of the œsophagus by a diverticulum. It is to be observed, however, that cancer is more common in men than in women, and is rarely encountered before the age of 45. The symptoms commence insidiously, but the dysphagia steadily increases until the patient can only swallow liquids with difficulty, while most of the food is regurgitated. He also rapidly loses flesh and strength, and soon presents the characteristic cachexia. Exploration with a tube reveals an obstruction at one spot in the œsophagus, which can only be surmounted by the use of an instrument of suitable calibre. Hæmorrhage from ulceration of the malignant growth is not infrequently observed, especially after direct exploration. The œsophagus seldom exhibits any marked evidence of dilatation above the stricture, and at most a few drachms of turbid saliva can be evacuated. Cardiospasm, on the other hand, occurs at an early period of life, and seems to be as common in women as in men. The dysphagia develops gradually and never becomes complete, since the patient acquires the habit of forcing the food into the stomach in the manner described. Vomiting seldom occurs, and rapid emaciation, hæmatemesis, and cachexia are never observed. Exploration with a tube demonstrates that the apparent stricture can be traversed without difficulty, while the œsophagus itself is greatly dilated, and capable of containing a considerable quantity of food. The disease lasts for many years; and, if the patient is properly fed, does not directly curtail the period of life.

The symptoms which arise from the presence of a pressure pouch of the œsophagus usually develop about middle age, and consist of dysphagia and regurgitation of food. As the diverticulum increases in size a swelling of the neck may be observed after eating or drinking, and the application of external pressure will force some of its contents into the mouth. If a tube is inserted into the throat, its tip is apt to enter the pouch and to become arrested at a distance of 6 or 7 inches from the incisor teeth. With a little manipulation the ab-

sence of a stricture or dilatation of the œsophagus can easily be determined.

TREATMENT.

In every case measures should be adopted with a view of improving the general health. Daily exercise in the open air, with some healthy mental occupation, are indispensable to the successful treatment of hysterical and neurasthenic cases. The food should be moderate in quantity and plain in quality, and in severe cases a milk diet, with rest in bed, should be enforced for a few days. If anemia is a marked symptom, iron, quinine, valerianate of zinc, or phosphate of manganese should be employed, care being taken to secure an efficient daily action of the bowels. Subcutaneous injections of atropine have been recommended for cases of general spasm of the muscles of deglutition, combined with hyperæsthesia of the mucous membrane of the œsophagus. The measure which meets with the greatest amount of success is the introduction of a full-sized bougie into the stomach each day, the instrument being allowed to remain in the œsophagus for five minutes on each occasion. Occasionally this procedure is accompanied by a considerable amount of pain, so that it is advisable either to allow the patient to suck a few cocaine lozenges prior to the operation, or to smear the lower part of the instrument with cacao butter containing about 5 per cent. of the hydrochlorate of cocaine. In cases of chronic cardiospasm the nutrition should be maintained by teaching the patient to feed himself through a tube. The dilated œsophagus should be washed out each day or after each meal if the patient swallows his food, and internal faradisation of the cardiac sphincter may be practised with a suitable electrode. In severe cases it may be necessary to perform gastrostomy.

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CASES OF CEREBRAL ABSCESS IN CONNECTION WITH CHRONIC SUPPURATIVE MIDDLE-EAR DISEASE.

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DURING the last ten years great progress has been made in the surgical treatment of brain abscess caused by purulent inflammation of the middle ear. At least 60 cases of cerebral and 12 of cerebellar abscess have been successfully operated upon and recorded, and many unsuccessful, but none the less instructive, cases have been published.

There is no doubt that deaths still occur undiagnosed, both because the attention of the medical attendant is not drawn to the aural condition from its supposed trivial importance, by either the patient or his friends, and because the symptoms are often indefinite and often latent for long periods. Large encapsulated abscesses have been found during *post-mortem* examinations which must have existed for months, if not years, and which during life gave rise to no serious symptoms, and were therefore never suspected. An interesting case is recorded by Dr. Barr of a young man who, during his holiday, was climbing hills in the West of Scotland at the time of the first onset of acute symptoms. He died in a fortnight, and Professor Coats believed from examination of the lining membrane that the abscess had existed many months. Even when attention is especially directed to the possibility of an abscess, the difficulty of diagnosing an uncomplicated case in the early stages is often great, and is forcibly shown in a valuable paper by Godlee on Two Cases of Middle-ear Disease in vol. ii of *International Clinics*. He has compiled tables showing the most characteristic symptoms which may be feared or expected as consequences of chronic purulent inflammation of the middle ear, namely, mastoid suppuration, lateral sinus thrombosis, septic meningitis, and cerebral abscess. These symptoms are over sixty in number, and it is evidently difficult to reduce them to more reasonable bounds without impairing their accuracy.

In complicated cases—by far the majority—the difficulty of diagnosis is increased tenfold, and is at times impossible without an exploratory operation. This difficulty can only be diminished by a further record of cases, especially of those which have been under observation in the early stages. In the notes of the following cases prominence is given to the salient points, and detail, as far as possible, is omitted.

CASE I. Chronic Suppurative Otitis Media: Abscess of Temporo-sphenoidal Lobe: Operation: Recovery.—M. H., aged 30, came into the out-patient room at the Queen's Hospital on January 16th, 1895, complaining of severe pain in the head, chiefly on the vertex and left side. For twenty-five years he had had a yellow discharge from the left ear but never any pain, nor had he ever been away from work on account of illness. Fourteen days ago, January 2nd, when working down a well, he experienced a sudden and severe pain in the left side and vertex of his head. He went home but the pain gradually got worse, and two or three days later left facial paralysis came on. He had no rigors nor vomiting, and the discharge from the ear was more copious during this time. No local tenderness was found either over or below the mastoid. He was in a drowsy, stupid condition, with dry tongue covered with sordes, pulse slow, temperature 100.2° , a condition best described as a "typhoid" one. During the next few days he remained in much the same condition but slightly more comatose—temperature 100.6° to 102° F., pulse slow, about 60, discharge from ear thin and purulent. Mr. Priestley Smith kindly examined his eyes and reported "no decided neuritis, doubtful blurring of discs." In the absence of symptoms indicating mastoid or sinus trouble the case was looked upon as one of temporo-sphenoidal abscess. A trephining was therefore performed on January 19th, and an abscess was found deep in the temporo-sphenoidal lobe, containing about an ounce of thick yellow foetid pus. The cavity was gently irrigated with boric acid solution and drained with rubber tube. He made a steady recovery, the wound being healed on February 6th. The pain in the head went after the third day. The facial paralysis was completely gone on February 25th and the discharge from the ear ceased on March 6th—after careful antiseptic treatment. He was seen again in May, and was then in robust health and at his usual employment.

CASE II. Chronic Suppurative Otitis Media: Temporo-sphenoidal Abscess: Operation: Recovery.—Mr. B. S., aged 25, was first seen in consultation with Mr. Loxton in 1890, for an offensive purulent discharge from the left middle ear, with polypoid granulations surrounding the perforation in the membrane. Eight years previously—in 1882—he had an attack of acute left otitis from cold, followed by purulent discharge, which had persisted ever since. He had been under treatment part of the time. He was placed on an antiseptic and spirit treatment. Marked improvement followed, and he was seen at long intervals as the discharge recurred. There was never any mastoid pain or tenderness. The question of possible intracranial complication was more than once discussed.

On March 26th, 1896, he saw Mr. Loxton for pain in the affected ear shooting alongside of head, and in the occipital region slightly, which he had had for a day or two. His temperature was normal, pulse 74, no headache, no ineptitude, nor any sign of intracranial complication, which was especially looked for. There had been no discharge from the ear for some months. There was an inflammatory swelling on the posterior wall of the bony meatus, partly occluding it and possibly the cause of the pain. As the symptoms persisted in spite of treatment, a puncture was on March 28th made into the swelling; no pus escaped, but relief was afforded for 24 hours. On March 30th, the swelling had subsided and granulations bathed in foetid pus were seen beyond it, and he was again placed on the antiseptic and spirit treatment. The neuralgia was as bad as ever, and no relief was obtained from drugs. On April 4th, a dentist was consulted, and although no dental cause could be ascertained, a left wisdom tooth was extracted under gas in the hope of possible relief. On recovering from the gas, he felt no pain, and for four days he remained well and decidedly improved in health.

The pain returned on the night of April 8th worse than ever, and was localised along the course of the great occipital nerves; no pain in ear or mastoid. The following day I was asked to see him re the possibility of any intracranial trouble, but there was no symptom beyond the occipital pain. His cerebriation was quick, temperature and pulse normal. He was given remedies which eased the pain but did not cure it, and he kept in much the same condition until April 16th; temperature normal, pulse 70. He then became drowsy, but was rational and intelligent. As the drowsiness might have been caused by drugs all medicinal treatment was stopped, but by mistake a very large dose of antikamnia was given that evening, and it was felt that this might have increased the drowsiness, which was more marked the following morning. He was intelligent, and said the pain was better, but not well; pulse 64. A brisk purge was given and other remedies discontinued. As the drowsiness increased he was seen the next afternoon by me in consultation with Dr. Holloway, in the temporary absence of Mr. Loxton, and also later by Dr. Suckling. Optic neuritis was now present, pulse-rate had fallen to 40, temperature normal, respiration slow, marked drowsiness, and slow cerebriation. It was agreed that there was either a temporo-sphenoidal or cerebellar abscess. Early the following morning a trephining was performed over the temporo-sphenoidal lobe, and a large abscess was found containing some ounces of pus, which spurted out along the track of the exploring probe. The cavity was gently irrigated with warm boric acid solution, and a rubber drainage tube used. Immediate improvement resulted, and in a fortnight he was practically well. There was a little rise of temperature once owing to a slough obstructing free drainage, and for a time there was double vision when the eyes were looking to the left, probably the result of some implication of the left centre for conjugate movement. This symptom disappeared when the tube was finally withdrawn. On June 22nd, as the discharge from the ear was still present, the mastoid antrum was opened, and a series of small cells in dense bone filled with pus were scraped out and drained. He made a good recovery, and although he has headache rather frequently at the present time, he is in good health, and following his profession as an art student.

CASE III. Chronic Suppurative Otitis Media: Mastoid Abscess: Temporo-sphenoidal Abscess: Operation: Recovery.—Mr. P. H., aged 17, was first

seen in consultation with Mr. Hallwright June 26th, 1894, for an offensive purulent discharge from both ears, a sequel of scarlet fever in 1887. The left ear was then the worst and there were small perforations in the posterior superior segment of each membrane with granulation tissue around. No adenoid hypertrophy nor nasal abnormality. Chronic acid was applied to granulations, and he was placed on the antiseptic and spirit treatment. He improved with this and the discharge on the left side ceased for long intervals, but there was always a trace on the right. No pain nor mastoid tenderness. The propriety of opening the mastoid antrum was more than once discussed.

On September 25th, 1896, I again saw him with Mr. Hallwright. For some ten days he had suffered from neuralgia in his right upper teeth and along the temporo-auricular nerve, and had been taking remedies for it. On the night of the 19th he had been to the theatre and afterwards waited about in the cold for an omnibus. After he reached home he felt unwell all night and had a shivering fit lasting about an hour, and the next morning some headache in the right temple. Temperature 103.2° ; pulse 84. His ears were much in their usual state, but there was marked tenderness over the right mastoid antrum. As this seemed sufficient to account for the rigor and headache, opening of the antrum was advised. A further opinion was desired by the parents, so he was seen that evening by Mr. Barling, who agreed with the view taken and who was present next morning when the antrum was opened. Pus welled up from a series of small spaces in hard bone, which were gouged out and packed with iodoform gauze. For ten days he was much better. Temperature and pulse practically normal. He then had some vomiting after food and a feeling of sickness and a second rigor on the 30th, the temperature rising to 103.2° . He was now seen in further consultation by Mr. Jordan Lloyd, who regularly saw him with Mr. Hallwright and myself. The sickness passed away on withholding food, but the pain in the right temple and in the right molar teeth got worse; so much so that the teeth were examined by a dental surgeon, who however could find no dental cause for the pain. He kept in much the same condition re the pain, but got weaker and emaciated. Temperature generally normal and pulse 80. On October 8th he was decidedly drowsy, and in the evening this was more marked and the pulse-rate varied from 40 to 120. The pain was still felt acutely. He was trephined by me the next morning and an abscess opened, containing about 2 ounces of pus, a rubber tube was put in, and steady improvement took place. There was still some pain in the right upper molars when the wound was dressed. A fortnight later he was practically well. He has had a good deal of headache at times, but is now in good health. He sailed for the Cape a short time ago.

CASE IV. Chronic Suppurative Otitis Media: Mastoid Abscess: Meningitis: Temporo-sphenoidal Abscess: Operations: Death.—H. H., aged 9, admitted into the Ear and Throat Hospital, May 19th, 1898. There was a history of discharge from both ears for three or four years, and he had been attending as an out-patient for three months, and had been treated by one of my colleagues with antiseptic lotions and drops, and removal of polypoid granulation tissue. The right side was the worst, and there were still granulations around perforation. He had been quite well and at school until a week before admission. He was then kept at home as he complained of headache and had very restless nights, frequently crying out when asleep.

The night before admission, at 10 P.M., he was suddenly seized with what was described as an "epileptiform" fit, which continued without intermission until he was brought to the hospital at 2 P.M. He was then only partly conscious, and there was slight rigidity of both body and limbs, most marked on the left side. There was no retraction of head, no optic neuritis, the pupils were dilated, and there was at times conjugate deviation of the eyes to the left. Temperature was 100° , and pulse 130. He was constantly picking at the right upper molar teeth with left fingers. There was distinct tenderness over the right mastoid antrum, so at 4.30 P.M. this was opened and a teaspoonful of pus evacuated. Fluid syringed through mastoid opening came freely through the meatus. He was given frequent small doses of calomel, and bromide when necessary. He lay quiet all night and the next morning his temperature was normal, pulse 100, rigidity and conjugate deviation much less marked, and he was able to answer some questions rationally. His condition did not alter much during the next twelve days. He was restless, slept little, cried out occasionally, was conscious at times, difficult to feed, constantly picked either at bandages over dressings, or the right upper teeth, his temperature was generally normal and pulse 100. His right upper teeth seemed to trouble him so much that two carious ones were extracted and the gum lanced over a partly cut incisor. No relief ensued.

On June 3rd he vomited several times, screamed out frequently, and became less conscious. The next day (June 4th) he was more comatose, temperature 98.2° , pulse 108 at 9 A.M., 80 in the afternoon. An exploratory trephining was performed, and a large temporo-sphenoidal abscess, containing about 6 ounces of foetid pus was found and opened. His pulse at once rose from 80 to 100, and his temperature to 100° , and some improvement gradually followed, and two days afterwards he was again able to answer some questions coherently. He maintained this improvement, temperature generally 99° and pulse 100 until June 10th, when he again became more comatose and weaker, and as the abscess cavity was foetid and sloughy, gentle syringing with warm 121 solution was ordered twice daily. Some temporary improvement followed.

On the 13th there was marked hernia cerebri, and during the syringing, which was very carefully performed, the boy became somewhat collapsed. Two hours later there was a transient but marked rigor, temperature 103.6° , pulse 88. He subsequently improved somewhat, but grew worse the following day, and died on the 15th, the temperature rapidly rising before death to 106.6° and the pulse to 160. *Post mortem*: Meningitis of base of brain, most marked about pons, and extending some distance down the spinal canal, along both Sylvian fissures, and under surface of cerebellum. Whole of right temporo-sphenoidal lobe very soft and breaking down, the lateral ventricle being filled with watery foetid pus. The lateral ventricle of left side also filled with thin pus and brain matter around, especially anteriorly, soft and breaking down. Cerebellum normal. No secondary abscesses.

CASE V. Chronic Suppurative Otitis Media: Sphenic Lateral Sinus Thrombosis: Suppurative Course of Internal Jugular Vein: Secondary Brain Abscess: Operations: Death.—W. W., aged 15, was admitted into the

Queen's Hospital on September 21st, 1896, under the care of Dr. Foxwell (by whom he was subsequently transferred to my care), having been sent in as a case of typhoid fever. About ten years ago he fell down and hurt his head, and subsequently had a discharge from the right ear, which, with short periods of intermission, had continued to the present time. He was able to work until a month ago; then the discharge became more profuse, and he suffered from pain in the frontal region at night. He remained in bed, but became worse. There had not been any vomiting, but there was a history from the friends of several fits and two rigors. Ten days ago a painful swelling was noticed below the right ear, which increased and became more painful. There was a foul discharge from the right ear. The temperature was 103°, pulse 84; tongue very foul, and covered with thick white fur; knee-jerks absent, no paralysis; double optic neuritis.

On the 24th fluctuations were detected in the swelling in the neck, and he was seen by me on the 25th. An incision was at once made, and some ounces of very foul pus evacuated. For two days after this he was more comfortable, but his temperature kept high, and on the 27th he had a rigor, his temperature rising to 105.2°. Although there was no recurrence of the rigors he kept in an unsatisfactory condition, temperature varying from 98° to 105°, pulse from 70 to 100.

On October 2nd the abscess cavity was explored with a view of ligaturing and removing, if necessary, the right internal jugular vein, but no trace of it could be found, and I concluded that it had been destroyed by the suppuration. His subsequent condition became more unsatisfactory, and it was deemed advisable to explore further. He was therefore trephined on October 14th, over the right temporo-sphenoidal lobe, and both this and the cerebellum carefully explored with a needle. No abscess cavity was found. A crown of bone was then removed to open both the mastoid antrum and lateral sinus; the former contained a small quantity of caseous pus, the latter a blood clot. The opening was packed with iodoform gauze. There was little change in the patient's condition after the operation; if anything he was more irritable and restless, and he refused food. There was no further vomiting. He gradually sank, and died on the night of the 15th.

Post-mortem no trace of the right internal jugular vein could be found. The lateral sinus was thrombosed with blood clot, which had not become organised. In the white matter of the brain there were eight small abscesses found, evidently secondary; none elsewhere.

Looking at these cases, it is evident that the first three practically form a group of uncomplicated abscess of the temporo-sphenoidal lobe, and that a fairly accurate diagnosis was possible.

The symptoms in favour of the diagnosis were:

1. A long history in each case of the chronic purulent ear trouble—twenty-five years, fourteen years, and nine years respectively.
2. No mastoid tenderness (except in Case III) and no tenderness on percussion over the sigmoid sinus.
3. No thrombosis of the internal jugular vein.
4. No high or greatly-varying temperatures, and pulse not rapid.
5. Absence of pyæmic symptoms other than the two rigors in Case III.
6. Cerebration little affected in the early stages, but becoming slow later.
7. Marked emaciation.
8. A chronic course terminating in coma.

In favour of the abscess being temporo-sphenoidal rather than cerebellar there were the facts that there was no occipital headache, no marked vomiting nor disturbance of equilibrium, no sensory aphasia, and no implication of the sixth nerve.

Apart from the non-implication of this latter nerve, the neuritis present in the several cases did not much assist the diagnosis, but it is noteworthy that in three of the cases the fifth nerve was early involved, and that the aid of a dental surgeon was sought to eliminate a possible dental cause of the pain.

In Case IV the diagnosis was septic basal meningitis, and this was probably correct, though from the sudden onset it is just possible that a latent abscess may have burst into the lateral ventricle. There was no sudden change in the symptoms during the subsequent progress of the case to indicate that this had taken place.

Case V was primarily a septic thrombosis rapidly extending down the jugular vein, and destroying it by suppuration. The brain abscesses were secondary and pyæmic, and could not have been discovered by operation.

With regard to the time at which trephining is generally performed, commencing coma still seems to be the signal for surgical action, and that it is not a too-late one is shown by the complete and rapid recovery of these and other similar cases.

The question is, Can we anticipate this time with a reasonable hope of success? The experience of the first three cases leads me to hope that an exploratory operation might with advantage be undertaken without waiting for coma in all

cases presenting a series of symptoms similar to those here recorded.

If there is much doubt as to the location of the abscess—temporo-sphenoidal or cerebellar, or possible implication of the sigmoid sinus—the method suggested by Mr. Percy Dean should be followed, and a crown of bone removed, $1\frac{1}{2}$ inch behind and $\frac{1}{2}$ inch above the centre of the external meatus, through which all these regions can be explored. I need hardly say that if there is any mastoid tenderness the antrum should always be opened first, and the surrounding parts carefully examined for any evidence of extension from this cavity.

It is interesting to note that two of the cases had been under careful treatment for the aural condition for years, and that the possibility of intracranial complications had been discussed, as also the advisability of a mastoid operation as a preventive measure, which unfortunately had not been accepted by the patients.

The cases very forcibly show the importance, or rather the necessity, for a mastoid operation in all cases of suppurative middle-ear disease which do not yield to careful treatment by ordinary methods.

CLINICAL LECTURE

ON

CASES OF PERITYPHLITIC ABSCESS OF CÆCAL ORIGIN.

Delivered at the Manchester Royal Infirmary.

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[ABSTRACT]

It has now become a well-recognised fact that most cases of abscess in the neighbourhood of the cæcum or vermiform appendix are dependent upon morbid changes, not in the cæcum as was formerly believed, but in the appendix itself; hence the old names "perityphlitis" and "perityphlitic abscess" are becoming very generally replaced by the terms "appendicitis" and "appendicular abscess." We do, however, occasionally meet with instances of suppuration in this situation, where the primary lesion is in the cæcum, the appendix being perfectly healthy, as was illustrated in the following case, where a perityphlitic abscess was due to perforation of the cæcum by a foreign body:

CASE I. *Perityphlitic Abscess due to Perforation of the Cæcum by a Pin: Fæcal Fistula: Plastic Operation: Recovery.*—A man, aged 26 years, was admitted on September 23rd, 1897, into the Manchester Royal Infirmary, presenting all the symptoms of acute appendicitis. Four days previously he was suddenly seized with severe pain in the right iliac fossa, followed by vomiting. On admission, a distinct fullness was perceptible above the outer part of Poupart's ligament; it was tender upon pressure, and slightly dull on percussion; there was rigidity of the abdominal muscles on the same side, and the abdomen generally was somewhat tympanitic. Temperature 99.4°, pulse 82. For some days there was little change in the patient's condition; there was no sickness, and the bowels acted with an enema, the motions afterwards becoming loose and diarrhoea-like. At the end of a week the attack appeared to be subsiding, for the local symptoms were all less marked; the temperature had remained normal, the pulse never rising above 96.

On the ninth day the patient vomited for the first time since admission. As the sickness continued the following day, and at the end of 48 hours became distinctly fæcal, it was resolved to explore the neighbourhood of the appendix, though no evidence of suppuration could be detected. There was no increase in the swelling, or other local signs pointing to the presence of pus; the temperature remained normal, but the pulse was somewhat accelerated.

On the eleventh day an exploratory incision was made over the region of the appendix. On opening the peritoneal cavity there was an escape of less than 1 ounce of thick pus with a very offensive odour. A fæcal concretion came away with the discharge, ovoid in shape, and three-quarters of an inch in length. Embedded in the centre of the concretion was a pin, its head and point protruding slightly at either end. The abscess cavity, which on exploration with the finger was found to be shut off from the general peritoneal cavity by adhesions, was washed out with boric lotion, and a drainage tube was inserted.

As regards the after-course, though the patient's condition for some days was very unsatisfactory he made a good recovery, and left the hospital for the convalescent home at Cheadle on November 6th, a fæcal fistula remaining at the seat of operation. He was readmitted at the end of December, as there was a very copious discharge of fæcal matter, and also a protrusion of mucous membrane from the fistula, which showed no tendency to close.

On December 30th the wound was enlarged, and it was then found that the communication was with the cæcum, which was closely adherent to the abdominal wall, the opening, which was about the size of a shilling, being situated on the anterior part of the bowel, about 3 inches from the