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CASES OF FÆCAL ABSCESS.

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Provincial Medical and Surgical Association, at Sheffield
and Leeds,)

Attention has, of late years, been directed to abscesses in the abdominal parietes, and particularly in the right iliac fossa, connected with disease of the cæcum or its vermiform appendage, and complicated with fistulous communications with this bowel. Without doing more than allude to the memoirs of various foreign physicians and surgeons, I will merely refer to the papers by Dr. Burne, in the *Medico-Chirurgical Transactions*,* and particularly to a "Report" in the *Dublin Journal of Medical Science*, for May, of the present year, (1847,) in which Dr. Battersby gives an analysis of the various contributions on this subject.†

This form of disease, however, is one which cannot yet be regarded as fully elucidated, and I venture to think that the following cases may have some value in the formation of a more complete history of this formidable class of affections. The cases, indeed, appear to throw some light both on the pathology and the treatment of the disease.

CASE I.

FÆCAL ABSCESS, SEATED IN THE SCROTUM; DISCHARGE OF A SMALL PORTION OF BONE; COMPLETE RECOVERY. DEATH FROM OTHER CAUSES: EXAMINATION POST-MORTEM; GREAT ENLARGEMENT AND HERNIA OF THE VERMIFORM APPENDAGE.

A clergyman, aged 56, had for upwards of five years suffered from somewhat impaired health, and exhibited symptoms of mental aberration, on account of a more decided attack of which he was admitted into this establishment, in the spring of 1846. He was of large figure, and stout in proportion, and had been accustomed to eat rather largely of animal food. Soon after admission he suffered from a severe attack of pleuropneumonia, but recovered satisfactorily. The mental malady was soon materially relieved, and in the course of the year he more than once appeared convalescent,

but again experienced a recurrence of the disorder in a less severe form.

He had formerly been the subject of what was regarded as an incipient inguinal hernia on the right side, for which he had long worn, and continued to wear, a truss. On the 20th of January, 1847, he complained of increased swelling in the situation of the rupture, and I found a tumour, the size of an egg, exactly in the situation of the external abdominal ring, which, after examination, I concluded to be omentum, and made a few efforts at returning it into the abdomen. On the following day a warm bath was ordered, and the taxis was repeated, but still without effect. Later in the day my patient informed me that he had for a few days suffered from a slight uneasy sensation in the iliac region of the same side, and that once during this period he remembered experiencing a sensation of "something giving way" in this situation, but of which he had thought no more. On further examination I found that the tumour was very closely connected with the front of the spermatic cord: it had a pyramidal form, and was evidently seated beneath the spermatic fascia. The patient, who frequently examined the tumour, constantly expressed himself as detecting something like an eel, which glided from beneath his fingers. This I felt myself, and concluded it to consist of the enlarged spermatic cord. There were no symptoms of intestinal obstruction, nor yet of constitutional disturbance. There had been an evacuation from the bowels within twenty-four hours. The tongue was as clean as usual, and the pulse was not accelerated. The tumour, however, had increased in size since the preceding day, and was now the seat of some dull pain, and I determined on treating the case as one of inflammatory swelling. Six leeches were applied to the tumour; three grains of calomel were given at bedtime, and a dose of castor oil in the morning.

The pain was relieved by the leeches; but there was no evacuation from the bowels until about forty hours after taking the calomel, and the patient was hardly convinced that he was not labouring under strangulated hernia, even after two copious evacuations (the first of which was very scybalous,) had been obtained. The tumour now rapidly increased in size, and encroached much on the scrotum. The dull heavy pain also increased. On the fourth day after coming under care, leeches were again applied, and were followed by hot fomentations and poultices, which were subsequently continued. A diet of broth, pudding, tea

* Vols. 20 and 22. On "Perforative Ulceration of the Cæcum," &c. On "Tuphlo-Enteritis," &c.

† Vol. 3, p. 515.

and bread was ordered. For a week after this, the tumour increased gradually, but continued free from redness and increase of temperature. Though the patient suffered considerable pain, in consequence of which, and of mental anxiety, his sleep was much interrupted, there continued to be little or no constitutional disturbance. The bowels, though relieved from time to time, were tardy.

On the fourteenth day, the swelling had so much increased as to distend nearly the whole of the right side of the large scrotum. It encroached upon the testicle, and had excited a little serous effusion into the tunica vaginalis. The pain was somewhat more severe. Fifteen leeches were applied, and the same local applications continued; a dose of Dover's powder at bed time, and a saline aperient draught in the morning, were also given.

Considerable relief, as regards the pain, was now obtained, but the tumour continued to enlarge. The patient obtained a good night's rest from the Dover's powder, which, after a night or two, was exchanged for a pill, containing three quarters of a grain of acetate of morphia with extract of henbane. This pill he continued to take with much advantage for several weeks. On reviewing the history and progress of the case, I now concluded that, though an unusual situation for such an affection, the case would prove to be one of fæcal abscess.

On the twentieth day the tumour was nearly as large as the two fists, and something like softening was detected at the lower and anterior part. The pain had assumed a more severe, heavy, and burning character; and on questioning the patient, I found that a day or two before he had experienced a distinct rigor. The bowels continued to be torpid, and saline aperients and enemata were administered, not without due effect.

On the twenty-fourth day the pain had increased much in severity; and in the situation before adverted to, for the extent of about a five-shilling piece, fluctuation of an indistinct kind and rather deep-seated, was detected. There was no cutaneous discolouration. A seton-lancet was introduced, and exit given to less than half an ounce of a dirty olive-coloured matter, of a semi-purulent character, and having a most abominable and worse than feculent odour. This was mixed with, and followed by, a few bubbles of gas. A pledget of lint was introduced into the wound, and the poultice was continued. Great relief was obtained by this proceeding; about half an ounce of matter was discharged daily, evidently from a point considerably below the surface; and this gradually assumed a less offensive and more healthy character, though it was still mingled with bubbles of air. The tumour diminished very slowly in size and continued to be the seat of a dull heavy pain. Though somewhat reduced in strength, the general health was scarcely at all affected. A little fish and meat, with two glasses of wine, were now added to his diet; and the decoction of bark, with sulphuric acid, was also given. Constipation of the bowels was obviated by occasional doses of castor oil. At the end of about a week it was found that whilst the discharge of matter had

much diminished, a second little abscess was forming about an inch below the former one, and in this situation there was much tenderness and some discolouration. The general mass of the tumour was but slightly reduced in size. On the thirty-fourth day this second abscess was opened, and about three drachms of rather sanious pus, much less offensive than that from the former one, were discharged.

During the month which followed, the suppuration, which had never been abundant, by degrees almost entirely subsided; the opening which had been first made healed; but the tumour did not diminish in the way which might have been expected. Towards the end of this period, the sinus left by the last abscess assumed a rather irritable condition; there was considerable tenderness on pressure, and the surrounding integuments were of a dusky red colour. The bowels continued torpid, and required frequent aperients.

On the fifty-ninth day, the sinus was laid open to the depth of about half an inch. After this had been done the patient complained of much pricking pain, and upon removing the lint with which the wound had been dressed, about four hours afterwards, a small piece of hard bone was found to have been discharged. This little bit of bone was of a triangular shape, with sharp angles, and did not measure more than a quarter of an inch in any direction. It was probably a portion of a bone from a mutton chop, which had been swallowed, and had escaped digestion.

After this there was no more pain, the suppuration entirely subsided, the sinus immediately healed, the tumour as rapidly diminished, and at the end of ten days from the discharge of the piece of bone, viz., on the seventh day of the illness, (the end of April,) was entirely absorbed. For a few weeks there was a little relaxation of the integuments of the groin and scrotum, but this soon disappeared, and at the present time (June 4th, 1847,) his general health is in every respect as good as it was before this attack of indisposition.

I shall not make many observations on this case, the pathology of which appears sufficiently obvious; I will merely state that I conclude the mucous membrane of the cæcum was predisposed to disease, by the habitual constipation of which the patient was the subject; that ulceration of the mucous membrane of this bowel, or of its vermiform appendage, was thus produced; that this had terminated in perforation of the bowel, and in the escape of some of its contents into the surrounding cellular tissue; and that these latter had, in their turn, given rise to the inflammation and abscess which were the subject of treatment.

The result must be regarded as in all respects most satisfactory. The progress of the case was tedious, but the recovery was complete. The case, I submit, confirms the importance of opening the abscess as early as fluctuation can be distinguished, and thus preventing the occurrence of sloughing, in which so many cases of fæcal abscess find a fatal termination.*

* A case which I had the opportunity of observing at the Westminster Hospital, in 1835, illustrates well the

The foregoing case and observations were read at the meeting of the Yorkshire branch of the Provincial Medical and Surgical Association, held at Sheffield, June 10th, 1847. The patient was then in usual health, but, from causes altogether unconnected with the disease now described, his death occurred within a month from that date,—viz., on July 8th.

Upon inspection of the abdomen, the intestines generally were found unusually large and distended with flatus. There was a patch of opacity and thickening on the peritoneal covering of the cæcum; its mucous membrane was rather thickened, and of a reddish brown colour, particularly around the enlarged opening of the vermiform appendage. This minute bowel was more than twice the usual length, and otherwise at least three times the ordinary size. Externally it was grey and mottled, and its tunics generally much thickened. The meso-appendix was much enlarged, thickened, and contained much fat. The three lower fourths of the whole appendage were contained in the form of a minute hernia, in the abdominal canal; its apex, which was opaque, contracted and thickened, was firmly adherent to the bottom of the canal, by an elongated firm band of adventitious serous tissue, of glistening whiteness; the omentum did not extend into the hypogastric region, and there was nothing to indicate that any other portion of the intestinal canal had ever been the subject of rupture.*

It will be observed that the appearances after death correspond remarkably with the general conclusions, as to the character of the case, which were formed during life. It will now, moreover, be seen that the symptoms are still more remarkably explained by the precise condition and situation of the vermiform appendage. A hernia of this minute bowel, if we may so term it, has only once before, so far as I am aware, been described,† and was, perhaps, hardly to have been anticipated during life.

The feeling which the patient experienced on manipulation of the tumour, and which he compared to that of an eel gliding through his fingers, was no doubt really attributable to movements in the abdominal canal of the vermiform appendage itself. This symptom may aid probably in the future diagnosis of such a case. I think it highly probable that the use of the truss which the patient had worn for several years was positively injurious, and I can hardly avoid the inference that it had strongly predisposed to, if it had not actually excited, that disease of the vermiform appendage which, under the presence of such an extraneous body as a piece of bone, ultimately terminated in

perforation and abscess. In conclusion I may remark, that the complete recovery, after so important a lesion of the intestinal canal, as ulceration and perforation, is well illustrated by the appearances observed on *post-mortem* examination in this case.

Examples of fæcal abscess and fistula, connected with malignant disease of the large intestines, have not, I think, been very frequently recorded, and I am therefore glad to take this opportunity of appending the particulars of the following case:—

CASE II.

FÆCAL ABSCESS, OPENING BELOW THE UMBILICUS; DEATH. MEDULLARY FUNGUS AND ULCERATION OF TRANSVERSE ARCH OF COLON, WITH FISTULOUS OPENINGS.

A respectable female, unmarried, aged 68, who laboured under a strong hereditary predisposition to insanity, and had been during more than half her life, an inmate of the Retreat. The case had commenced with maniacal excitement, which alternated with melancholia. At the end of ten years the disorder lapsed into imbecility, which lasted through life. About the same period she sustained a severe attack of apoplexy, and was subsequently subject to slight fits of epilepsy. When she came under my care, in the autumn of 1838, she was distinguished by a pale, wax-like complexion, flabby muscles, and feeble gait; but otherwise had tolerable health.

On the 11th of January, 1839, she was paler than usual, and was unusually fretful. On examination I detected a fulness on the right side of the abdomen, with much tenderness on pressure. The tongue was moist and white; the bowels confined, and the stools dark and offensive; the urine thick, scanty, and decidedly acid; the appetite but little affected. A dose of calomel and rhubarb, followed by a saline aperient, was given; and on the following day, twelve leeches were applied to the swollen part of the abdomen, which was afterwards covered with a warm linseed poultice.

On the 14th, the tenderness and fulness being only partially relieved, and the character of the evacuations unaltered, leeches were again applied, and three grains of mercury with chalk, and five grains of nitre, were given three times a day.

On the 15th, the fullness was considerably diminished, and she did not shrink so much on pressure; deep-seated hardness was, however, still to be detected. The pulse was 96, rather sharp and full. The improvement was now rapid; the local symptoms gradually subsided, but the evacuations continued dark and offensive, and the urine very acid.

On the 18th she left her bed; a few doses of bicarbonate of potass, and blue pill with colocynth, were

mischievous results of a too expectant surgery in these cases.—See "*Med. Chir. Review*," 1836, vol. xxiv., p. 567. A very similar and equally instructive case is reported by Mr. Ormerod, in his "*Clinical Collections and Observations in Surgery*," 1846, p. 189.

* A preparation of the diseased part is in my possession

† By Tarantelli, in Omodei's "*Annals*," 1835, quoted by South, in Chelius's "*Surgery*," 1847, vol. ii., p. 3, cases of hernia of the vermiform appendage, in connection with hernia of the cæcum, are much more common. See two cases by M. Lausberg, *Provincial Medical and Surgical Journal*, 1817, p. 529.

ordered, and under this treatment the evacuations assumed a more healthy character.

On the 24th, though more feeble than before the attack, she appeared convalescent, and all remedies were omitted.

She had remained apparently well for about a fortnight, when, on the 6th of February, a circumscribed tumour, the size of an orange, was detected in the abdominal parietes, immediately below the umbilicus. This tumour was firm, afforded a dull sound on percussion, and could be handled without occasioning pain. The skin was cool; the tongue moist and white; the appetite was impaired; the evacuations pale and watery; the pulse 90, small and feeble; there was little constitutional disturbance. A saline aperient draught was given, which acted freely on the bowels; and on the following day six leeches were applied to the tumour, and a few doses of calomel and antimonial powder were administered.

The tumour increased in size, so that on the 12th of February it had attained twice its former bulk. At this time it presented a slight blush of redness; and, upon examination, an obscure sense of fluctuation, combined with an emphysematous crepitation, was communicated to the fingers. The tongue was dry, and covered with a yellow fur; the bowels free; the pulse 90 to 100, rather full and soft; there was slight nocturnal perspiration, but no sickness nor rigor. I had now no hesitation in coming to the conclusion that the case was one of "fæcal abscess, communicating with the large intestine, and most probably containing gas." I had ventured a conjecture that this was the character of the case six days earlier. Poultrices, which had been applied for the two preceding days, were continued.

On the following day, (the 13th,) the signs of suppuration and the peculiar sense of crepitation having all increased, and the tumour exhibiting a livid discoloration, it was punctured with a lancet. Exit was thus given to about an ounce and a half of a dark purulent matter, having a highly offensive and strong fæcal odour, and having numerous bubbles of gas mixed with it. The cavity of the abscess was found to have a firm tendinous-like base, but no communication with the intestine could be detected with the probe. A diet of beef-tea, with a fair supply of wine, was directed.

For three days after opening the abscess she bore up pretty well, but the pulse was 100, and feeble, and the tongue brown and dry. The abscess discharged a dark matter, mixed with bubbles of air, so offensive that, notwithstanding all precautions, the room was almost intolerable. There was little or no evacuation from the bowels, and she was troubled with occasional borborygmi, the sound of which appeared to be connected with the open abscess. The quantity of wine was increased.

On the 16th an enema was administered, which produced an evacuation, mixed with many small scybala. The abscess assumed more of a gangrenous character; increased prostration of strength was evident, and a fatal termination was looked for daily. Under assiduous nursing, and the administration of

animal jelly and wine, (of the latter of which she took a bottle daily,) she rallied, and on the 19th the pulse had sunk to 90, was fuller, and stronger; the tongue was moist, and nearly clean, and the evacuations more copious. A few distinct coagula of blood, and a small portion of organized substance, containing some white granules, resembling diseased mucous membrane, (and probably containing encephaloid,) were detected in the evacuations.

The discharge of purulent matter now almost ceased, and a slough began to separate. Under this process the vital powers again appeared to give way, and the ankles became œdematous; the urine was acid, but not albuminous. The surface of the large sore, produced by the separation of the slough, had a livid and very unhealthy appearance.

On the 25th, upon cutting away a portion of the slough, some purulent matter, mixed with many bubbles of gas, again escaped.

On the last day of February the slough had entirely separated, the surface of the sore had put on a healthy character, and was being rapidly filled up with granulations. Though the pulse remained small and feeble, the tongue was moist and clean, and the evacuations from the bowels assumed a more healthy character. The urine was thick and scanty. The quantity of wine was diminished, and she was ordered a mutton chop.

The cavity of the abscess now gradually filled up, leaving only a small fistulous opening in the centre, of a depressed and puckered cicatrix. By the end of March all discharge from this fistula had ceased, and it closed completely. Though continuing feeble, she was at this time able to return pretty much to her ordinary mode of living; this, however, was of short continuance.

On the 7th of April the cicatrix gave way, and allowed the escape of some thin offensive purulent matter, mixed with a few bubbles of gas. From this period a few drops only of pus were discharged daily, until her death, two months later. Pallor and sallowness of the complexion increased, and emaciation proceeded rapidly. There were free evacuations from the bowels and bladder. Early in June it was observed that there was fulness and dulness on percussion, in the epigastric region. Œdema commencing in the ankles, extended up the right leg to the thigh; the emaciation became extreme; the tongue was brown and dry, and she took nothing but wine in small quantities. Respiration subsequently became short and impeded. During two days the secretion of urine was suppressed, and after lying in a moribund state for at least thirty hours, she died June the 12th.

Post-mortem inspection sixteen hours after death:—* The diaphragm was pushed considerably upwards, by the enlarged abdominal viscera; the heart was small, and weighed only six ounces and a half; the liver was much enlarged, and crowded throughout with large tubera of medullary sarcoma. These masses were very soft and pulpy, and of a yellowish-grey colour, mottled with a chocolate-red. The hepatic tissue was much

* The morbid appearances in the brain are omitted, as irrelevant to this paper.

diminished in bulk, very pale and soft; the gall-bladder was small, and contained a little dark green bile; the spleen was firm, and of a livid purple colour; the mucous membrane of the stomach presented a not very slight thickening over a limited space, about the middle of the large curvature. The small intestine was healthy, except that one convolution was twisted, and had a very red colour; and that another convolution had gained an adhesion to the mass of disease in the large intestines about to be described. The omentum contained considerable fat, and was connected with the abdominal walls, in the situation of the umbilicus, by delicate bands of serous tissue; immediately below, and forming one mass with the omentum, were the displaced cæcum and transverse arch of the colon. Upon laying open the large intestine, the principal lesion was found seated in the middle of the transverse arch. In this situation, to the extent of two or three inches, the muscular tunic of the bowel was the seat of scirrhus degeneration and hypertrophy. The mucous membrane, to the same extent, was replaced by a growth of soft cancer, which in some places was softened, broken down, and ulcerated. This fungous growth blocked up the intestine in such a way that the little finger could barely be passed through it. At the bottom of the ulcerated surface there was a small opening, by which a probe could be passed through a mass of sloughy and suppurating tissues in the centre of the adhesions, and at the bottom of the contracted cavity of the abscess, and so through the external fistulous opening. The large intestine above the seat of disease was somewhat dilated, whilst below it was less capacious and thinner than usual. In the upper and left part of the cæcum were two small orifices, about half an inch apart, with elevated thickened borders, through each of which a probe could also be passed into the external fistulous opening, which it will be thus seen communicated with the large intestine at three points. The mucous membrane around the fistulous orifices in the cæcum was rather thick and red, but otherwise the cæcum and vermiform appendage were healthy. The kidneys were pale and soft, and their external surface slightly granular, portions being raised and torn off with the fibrous tunic.

Cases of fæcal abscess and fistula originating in malignant disease of the intestinal canal, have seldom been recorded, and I am not myself able to quote any previous example of this kind.

Mr. Teale, in his valuable article on "Intestinal Fistula," in the second volume of the *Cyclopædia of Practical Surgery*, makes no mention of malignant disease, as a cause of fæcal abscess or fistula.

The case now described seems to have an interest in connection both with fæcal abscess generally, and with such abscesses dependant upon malignant disease in particular. As regards the diagnosis of fæcal abscess, it will have been seen that the case was recognized at a period sufficiently early for all the purposes of treatment. Although, on the retrospect, it may perhaps be thought that there were grounds for the opinion, that

the disease was connected with a malignant growth in the bowel, no such suspicion was entertained during life. The encephaloid tubera in the liver were, doubtless, developed subsequently to the disease in the colon, and were, most probably, the cause of that enlargement in the epigastric region, which was observed at a late period in the history of the case.

The best description, in a few words, of fæcal abscess, is, I think, that by Mr. Teale, in the article already referred to. In this article—almost the first in any systematic work in our own language, in which the disease has been described—under the head "Intestinal Fistula from Abscess," Mr. Teale has the following remarks:—

"Various hard substances introduced into the intestines are capable of exciting irritation in the coats of the bowel, and of giving rise to abscess. The ulcerative process, whereby the matter gradually makes its way towards the surface, is usually preceded and accompanied by a process of adhesion. The peritoneal coat of the intestine, before being opened by ulceration, is thus agglutinated to the abdominal walls, and effusion of feculent matter into the bag of the peritoneum is prevented. These abscesses are generally indolent in their course. They are usually preceded by a dull fixed pain in some part of the abdomen, attacks of colic, and various disturbed conditions of the digestive functions. The seat of pain becomes firm and unyielding; at length a well-defined tumour may be felt; the integuments assume a dull red colour; obscure fluctuation is perceptible; and the abscess, opening upon the surface of the body, discharges pus, feculent matter, and occasionally the extraneous body, which originally excited the mischief. In this manner fæcal fistula is ultimately established."

The two cases which I have narrated, tend, I would suggest, to shew, that the characteristics of abscesses of this kind are capable of being laid down, in some respects, with more precision. In the first place, the presence of gaseous matters in the contents of the abscess, and the consequent sense of crepitation communicated to the fingers before the abscess is opened, and the presence of bubbles of air in the purulent and feculent matters which are afterwards discharged, seem to me most important features in the symptoms. The tendency, too, to gangrene in the neighbourhood of the abscess, and the consequent necessity for the early incision of the suppurating tumour, appear to call for our especial notice. When the abscess is dependent, as in my second case, upon malignant disease in the bowel, the presence in the evacuations of organized matter, containing cancer-cells, may be expected.