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CASE OF CEREBRAL ABSCESS IN CONNECTION WITH OTITIS MEDIA, SUCCESSFULLY DIAGNOSED AND EVACUATED.¹

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THE case which I have the honour to bring before you this evening is one of the few cases of cerebral abscess in connection with disease of the middle ear which have been accurately diagnosed during life, and successfully treated by operation. For though abscess of the brain is a very common occurrence in connection with inflammation of the ear, and perhaps more frequently in chronic affections of this kind, it is generally the subject of *post-mortem* record, rarely accurately localised during life, and still more rarely treated successfully.

I have only been able to find two cases of a similar nature. One of these has been recorded by Gowers and Barker (*JOURNAL*, December 11th, 1886). This was a case of abscess in the right temporo-sphenoidal lobe, diagnosed without external indication, beyond the fact of inflammation of the ear, and successfully evacuated. The second has been recorded by Greenfield (*JOURNAL*, February 12th, 1887). This was a case of abscess situated in the anterior part of the left temporo-sphenoidal lobe, in which, in addition to the general indications of abscess, there were symptoms of pressure on the third nerve, a fact which prohibited the localisation of the seat of the abscess.

Two others have been referred to by Greenfield, namely, a case reported by Schondorff (*Monatsschrift für Ohrenheilkunde*, 1885, No. 2); and a second by Truckenbrod (translated in *Archives of Otolaryngology*, June to September, 1886). In both these cases, however, there were, in addition to the general symptoms, external indications of the seat of the abscess in the form of localised pain and oedema of the skull, and a fistula leading from the primary seat of disease.

The fistula in Truckenbrod's case led only under the pericranium to a rough place on the outside of the bone, while in Schondorff's case it led directly into the brain, and indicated the way by which the pus had penetrated. These two cases therefore are to be placed in a different category from those of Gowers and Barker and Greenfield; but a successful result was obtained in all.

Of the successful result in the case I bring before you this evening you will all be able to convince yourselves, as the quondam patient is here, and apparently as well as he has ever been.

On the evening of December 8th, 1887, I was asked by Mr. T. W. Coffin to see with him a case under his care, the history of which he related to me, and subsequently gave me the following detailed notes.

T. H., aged 47, a skilled artisan, was first seen by Mr. Coffin on November 25th. He had been ill since November 10th. On the 15th a discharge, somewhat offensive, had come from the left ear, which continued for about eight or ten days. When first seen he

was in a drowsy condition, but was capable of being roused, and replying to questions put to him. He complained of pain over the left side of the head, forehead, and back of the eyes, with a considerable degree of photophobia. The pain on the left side of the head was interrupted by pressure and percussion. There was slight discharge from the left ear, but the ear could not be thoroughly examined on account of the tenderness. The pupils acted normally, and vision appeared unaffected. There was no motor or sensory paralysis. The pulse was 52, weak and intermittent; respirations 14, laboured and sighing. The temperature was normal.

Mr. Coffin ordered the ear to be syringed with weak Condy's fluid, and prescribed a stimulant.

Next day the patient was brighter. He had less pain in the head. He was able to sit up in bed and smoke a cigarette, but he continued very drowsy and slept much.

On the 27th, 28th, and 29th he was still improving. The temperature was normal, the pulse regular, and the tongue cleaner, under the influence of a saline mixture and small doses of mercury. The discharge from the ear was more copious than it had been. There was very little tenderness on percussion of the left side of the head. The patient was generally asleep, but would rouse up for an hour or so, and occasionally smoke a cigarette.

On the 30th he was more drowsy, and apparently unwilling to be disturbed. At times it was very difficult to rouse him at all. He complained of more pain at the back of the eyes and general headache. His pulse was 60, respirations 16, and temperature absolutely normal.

On December 1st and 2nd the condition was essentially the same. There was no increase in the headache, but the drowsiness was greater.

Early on the 3rd he had become temporarily delirious, and had fallen back exhausted, but during the rest of this day and next there was no noteworthy change in the symptoms.

On the 5th, Mr. Coffin thought there was slight weakness in the right angle of the mouth, but so slight that it was considered somewhat doubtful by those who were acquainted with the usual expression of face.

On the 6th, for the first time there were indications of affection of speech. He used wrong words, and seemed angry at not being understood when he asked for what he wanted.

It was on the evening of the 8th that I saw the patient. He was at that time less drowsy and much clearer in his intellect than he had been for some time previously. He was able to sit up in bed, and talk, but his words were incoherent and for the most part unintelligible. He appeared to understand simple questions, but at other times appeared confused and unable to understand. He called things by wrong names. When asked to read a few sentences from a journal placed before him, the words he uttered had little or no resemblance to those before him.

There was no appreciable defect in the mobility or sensibility of his limbs, but the right angle of the mouth acted less energetically than the left. Examination of the eyes, carried out with some difficulty, revealed signs of optic neuritis, but a more thorough investigation of this and other conditions was reserved till the following day. From the facts, however, related to me by Mr. Coffin, and the patient's condition as seen by myself, I confirmed the opinion passed by Mr. Coffin that it was a case of abscess of the brain, in connection with disease of the middle ear, and I considered that the position of the abscess was fairly indicated by the symptoms.

The case seemed to me to be one which ought to be dealt with speedily, and I advised immediate removal to the hospital, with a view to further careful investigation and operative measures. The patient was removed the next morning to the National Hospital for the Paralysed and Epileptic, under my care. At this time he was conscious, and complained of no pain anywhere. He replied to questions, but frequently used wrong words without seeming to be aware of the fact. He occasionally hesitated to do what he was told, appearing as if he had some difficulty in understanding what was said to him. There was perceptible weakness of the right angle of the mouth, and though he could make every movement with his right hand, it was found that the grasp of the right hand was only 80 lbs., whereas that of the left was 100 lbs., the patient being a right-handed man. The tendon reactions were active on both sides, and there was no appreciable difference between those of the left and right. There was no affection of sensation. Ocular movements were normal, and the pupils equal and contractile. Ophthalmological examination

¹ Read before the Medical Society of London, March 5th, 1888.

(verified by Mr. Brudenell Carter) showed the existence of well-marked optic neuritis, with a small hæmorrhage over the right disc, and a whitish band below that of the left. The senses of taste and smell were normal. The patient could hear a watch 15 inches from the right ear, but only on contact on the left side. The left auditory meatus was filled with a purulent secretion, which prevented a view being obtained of the condition of the membrana tympani, and it was considered not advisable to attempt to remove this at the time.

Though the patient complained of no pain in his head, I found on careful examination that there was a spot tender to pressure and percussion situated two inches above and just anterior to a line drawn upwards from the external auditory meatus.

From the results of my examination on this and the previous day, I had no doubt that the patient was suffering from a cerebral abscess. The comparatively rapid onset of symptoms indicative of cerebral mischief in a man previously in good health, coincidently with signs of inflammation and purulent discharge from the left ear, were in favour of abscess rather than tumour. There had been no vomiting, convulsions, or febrile disturbance or other indications of meningeal inflammation.

The fact that there had been no rise of temperature did not exclude the idea of encephalitis resulting in abscess, for many cases of cerebral abscess appear to run their course without causing febrile disturbance, the temperature being in some rather subnormal than the reverse. The position of the abscess, verified by the operation, was determined both from the symptomatology and the position of the pain experienced on percussion. The relative weakness of the right angle of the mouth, the ataxic speech, and slight degree of word-deafness, indicated that the disease was situated in close proximity to the speech and auditory centres of the left hemisphere, but not actually destroying them; and the conditions of such a lesion would be supplied by an abscess situated in the anterior third of the temporo-sphenoidal lobe and abutting or pressing on the fissure of Sylvius.

This localisation from symptomatology I considered confirmed by the discovery of a spot, tender on pressure and percussion, coinciding in position with that part of the superior, or superior and middle, temporal convolution which lies immediately posterior to the ascending limb to the fissure of Sylvius, and below the inferior extremity of the ascending frontal convolution. I would not consider the position of the tender spot as by itself a safe guide to the localisation of abscess or other cerebral disease, for the pain may be referred to a region at a considerable distance from the disease. Thus Mr. Hulke (BRIT. MED. JOURNAL, July 3rd, 1886) records a case in which there was a tender spot above the ear, whereas the abscess was in the cerebellum; and in a second pain was felt acutely in the occiput, whilst the abscess was in the temporo-sphenoidal lobe.

But when, as I pointed out many years ago, there is pain on percussion not spontaneously complained of over a region indicated by the symptoms as probably the seat of disease, the localisation is rendered all the more certain. I was therefore confident that an abscess would be found in the position indicated, and was of opinion that no time should be lost in resorting to trephining with a view to its evacuation.

My colleague, Professor Victor Horsley, after consultation on the case, concurred in my views, and operated accordingly on the following day. I need only remark that when the dura mater was removed over the region indicated, the brain, which had a normal appearance on the surface, was seen to bulge forward into the opening in the skull, a sure indication of pressure underneath; and on puncturing with a trocar, a considerable quantity of inodorous pus—about five drachms—welled out through the cannula. The subsequent history is one of uninterrupted recovery. The optic neuritis gradually subsided. Already, on the fourth day after the operation, the optic discs were clearing, the margins were becoming defined, and the extravasation of the edge of the right disc had disappeared.

On December 23rd the left disc was apparently quite normal; the right was still a little veiled, but the effused blood was no longer visible.

On January 3rd no difference could be perceived in the action of the two sides of the face. At this time the wound had become quite cicatrised. The removal of the surgical dressings allowed of a more careful examination of the condition of the left ear than had been previously considered advisable. After examination of the ears on January 18th Mr. Cumberbatch reported that the discharge from the left ear had entirely ceased, and there was no abnormal

condition of the external auditory meatus. Hearing, right 30%, left 20%.

Process conduction was normal, indicating mischief confined to the middle ear. No perforation could be detected in the membrana tympani, but it was thickened, cuticular in appearance, and purely granular. There was a slight opacity—probably cicatricial—behind the handle of the malleus, and rather above the centre of the membrane.

Before leaving the hospital the patient gave me the following personal details of his case. He first complained of pain in the left ear on Tuesday, November 8th. For this he inserted some cotton wadding in the ear. Next day this appeared tinged with blood. For about five days a clear discharge occurred, soaking through the wadding, and staining the pillow on which he lay. At this time, also, he had some pain in his throat and chest, which, together with the condition of his ear, he attributed to chill. The discharge from the ear changed to a thick, gummy, slightly yellow flow. He then took to his bed, as he did not feel able to stand up.

From November 20th his memory became an entire blank. "The next thing I recollect," said he, "was you standing by my bedside."

CLINICAL MEMORANDA.

HÆMOPHILIA.

M. A. P., a countrywoman, primipara, aged 30, was on January 26th last delivered by me of a male child. The labour was normal, but somewhat prolonged from feeble uterine action. The child was of average size and apparently healthy. On the fifth day the funis separated, leaving the umbilicus perfectly sound and healthy-looking. On the fourteenth day the nurse called my attention to a dark livid swelling which extended over the region of the left scapula, evidently extravasated blood. The child was jaundiced, but otherwise seemed happy and comfortable. Next day there came on a rather copious exudation of darkish blood from a crevice in the umbilicus, while the swelling on the back had increased and extended to the opposite side. I found a considerable difficulty in arresting the hæmorrhage, but it ceased after about two hours' pressure and the use of styptics. I put a pad over the part, strapped it tightly, and bound it up, and had no reason to apprehend any further difficulty. However, in about an hour the bleeding returned. We kept up pressure for about seven hours with more or less success. We found tannin the best styptic, and this at length stopped it. Then a fresh symptom arose; there then appeared an oozing of blood from the mouth, but this almost stopped when the flow from the umbilicus returned, which it did subsequently in spite of all treatment. Finally the child was taken to the London Hospital, where, as I am told, similar treatment was pursued with similar unsatisfactory results, the child ultimately dying from loss of blood about six hours afterwards. There is no history of such a diathesis in the family of either parent, and the child received no injury at any time.

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OBSTETRIC MEMORANDA.

TRANSVERSE RUPTURE OF UTERUS.

THE following are a few particulars of the first case of rupture of the womb which has occurred in my practice of forty years, with more than 4,000 labours.

E. H., aged 29 years, married, of short stature and phlegmatic temperament, was taken in labour on the night of October 19th, 1887, with her fifth child; her previous labours had all been protracted and her last child stillborn. I was called to her at 8 A.M. of the 20th, when the os was well dilated, the pains frequent and severe, but without the usual expulsive character of the third stage. I had been with her five hours when the pains ceased, the patient crying suddenly with a new agony; there were the usual symptoms of "shock." I then sent to my friend, Mr. G. Fraser, who assisted in the delivery by forceps, which was effected at 4 P.M. Death ensued on the morning of the 25th. At the necropsy, performed by my son, John S. Prowse, twenty-four hours after, a