

ARTICLE IV.—*Case of Tumour in the Anterior Lobe of the Brain.*

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THE subject of this case, Thomas Helay, æt. 44, sailor, was admitted into the Infirmary of the Berwick Union Workhouse the 7th November 1850. The following is his history, as gathered from himself some time previous to his death, and since from his relations.

Towards the end of 1839, or beginning of 1840, while on board a vessel on her voyage from Liverpool to America, he was precipitated from the topsail yard into the tops, by the mast giving way during a heavy gale of wind. He alighted on his head, part of the wreck at the same time falling upon him,—causing fracture of the femur, compound fracture of the leg, and, as we shall afterwards see, though he was not himself aware of it, a dislocation of the thigh upon the pubes—all of the right side. He remained for about an hour and a half insensible, and for several hours after felt stunned and confused. About the third or fourth day he became affected with jaundice, which lasted above a week. The vessel, being much damaged by the storm, put into Greenock for repair, where she arrived a fortnight after the accident occurred. During the whole of this time the poor fellow was without medical or surgical aid, except some rude bandaging from his messmates,—there being no surgeon on board. He was taken to Greenock Infirmary, where he remained above four months; and it was, after a few days' residence in that institution, that he was seized with his first epileptic fit.¹

From that time till the period of his death these paroxysms continued, at first at intervals of six or seven weeks, and gradually becoming more frequent, till latterly they occurred about every ten days, though not with any degree of regularity.

With the exception of this disease, he enjoyed good health, and, indeed, after leaving the Greenock Infirmary, he went three voyages as cook. At first he was not unconscious during the fits, but for the last four or five years he was so.

When standing erect, the right inferior extremity appeared much shorter than the other; the thigh was considerably abducted, and capable of motion to a very limited extent, and the foot completely everted—causing, as may be supposed, a great halt and peculiar mode of walking. This, with the increasing frequency of the fits,

¹ I regret that I cannot give any history of the case while he resided in this hospital. I wrote a few days after the patient's death to the "senior surgeon" of the institution, and received a reply from the house surgeon, stating that he could find no such case recorded; nor, upon inquiry of the medical officers, did they recollect it. Thinking this might arise from a mistake of seven years that I had inadvertently made as to the time of his admission there, I wrote to that effect, but have not received an answer.

rendering him incapable of following his vocation, he became about four years ago an inmate of the Berwick Union Workhouse.

On the 8th of November last he complained to me of intense headach, with a feeling of great anxiety and restlessness, which, with total want of sleep, made me apprehensive that a paroxysm of unusual violence was about to ensue. He was accordingly removed to the hospital, and ordered an active dose of calomel and compound extract of colocynth; a mustard cataplasm to the nape of the neck; a hot foot-bath, and the application of cold water to the shaven scalp. For the remainder of his case I shall give a brief abstract of my private journal.

November 9, 11 A.M.—The nurse states that at 3 A.M., after a fearful scream, he was seized with a very violent paroxysm, lasting till 7; and after half an hour's remission another occurred, which continued till about half an hour ago. At present he is in a semi-comatose state; head hot; pupils contracted; pulse 110, very feeble; respiration laboured. Bowels have not been opened; ordered turpentine enema, a blister to the nape of the neck, and the application of ice to the head; small quantities of beef-tea at frequent intervals.

8 P.M.—Has had several slight fits during the day, and remains much the same as at the morning visit. The blister has not yet risen. The clyster brought away a large quantity of most offensive feculent matter.

10th, 11th, and 12th.—With the exception of a few hours' calmness on the night of the 9th, he has had a series of slight fits, lasting about five minutes, and with only about a quarter of an hour's remission betwixt each. On the evening of the 12th he became quite comatose; pulse 108, very feeble. Ordered a blister to the vertex and a turpentine enema.

13th, 11 A.M.—Appears better; is sensible to signs, but cannot speak, and is quite deaf; he follows with his eyes the movements of persons in the ward; the whole of the right side is paralysed; pulse 96, a little more firm; pupils not so much contracted.

He remained in this state till 9 A.M. of the 15th, when, after a violent scream, he was seized with a paroxysm, which continued without the slightest intermission till half-past 9 P.M., when he expired. The convulsions during this last attack were almost entirely confined to the left, or the *paralysed* side.

Inspection Sixteen Hours after Death.—The left arm was rigidly bent up towards the shoulder, and the fingers convulsively incurvated. The muscles of the left thigh and leg felt very rigid; the *tibialis anticus* and *extensor communis* muscles were so much on the stretch, in consequence of the convulsive flexion of the foot and toes, as to be distinctly traceable with the eye in their entire course. The muscles of the other leg and thigh were also rigid to the touch; marks of an old irregularly-shaped wound, about four inches long, over the middle third of the tibia, were very visible; and a hard

irregular swelling was distinctly to be seen and felt in the upper, anterior, and inner part of the thigh. This extremity was three inches shorter than the left.

On laying back the scalp there were no visible marks of fracture or other injury of the skull; neither, on opening the cranium, was there any evidence of disease or injury on its inner surface. The vessels of the dura mater were congested, but not more so than might have been expected from the difficult and imperfect respiration previous to death. Upon opening the membrane, a pale, greenish-yellow spot, not more than a few lines in diameter, and rising slightly above the level of the convolutions, was observable in the right anterior lobe of the cerebrum; it was hard to the touch, and in direct contact, but unconnected, with the dura mater, or rather its arachnoid lining. The brain having been removed, a corresponding spot was found on the inferior surface of the same lobe, along the inner surface of which, wound the olfactory nerve, smaller than its fellow of the opposite side. These spots were found to be opposite surfaces of a large tumour, completely surrounded, with these exceptions, by the cerebral substance, with which, however, it had no connection. A portion of the white substance opposite the middle of the posterior surface of the growth, of about three-fourths of an inch in diameter, showed marks of inflammation and softening; with that exception, the entire brain was healthy in appearance. The tumour was hard to the touch, having at the same time a feeling of elasticity, of a pale, greenish-yellow colour, with a somewhat rough and shaggy surface, and was of an irregularly round shape, measuring in its antero-posterior circumference eight and a quarter inches, and in the opposite direction eight inches, weighing five and a half ounces and fifty grains avoirdupois, the brain by itself weighing three pounds one ounce; it was supplied with blood by a branch of considerable size, proceeding from the anterior cerebral artery. On making a slight incision into the softest part of the tumour, a fluid, of a thick creamy consistence, and deep dull red colour, escaped, part adhering to the knife; and the entire contents were enclosed by a thick fibrous capsule. On examination by the microscope, the fluid matter which had escaped seemed to consist principally of blood corpuscles; but as I have had but little experience in the use of this most valuable aid to pathological research, I resolved to preserve the tumour entire for the benefit of some one more *au fait* with that instrument. [I have accordingly, at Dr Christison's request, sent it to Professor Bennett, whose well-known experience will, I trust, enable him to confer upon the readers of the Monthly Journal the advantage of his researches.]

On comparing the tumour with the descriptions of cerebral tumours given by Monro, Abercrombie, Craigie, Copland, Rokitsansky, and in the "Cyclopædia of Anatomy and Physiology," it appears to me, so far as I have examined it, to coincide most nearly with that

called hæmatoma. On a late inspection of the specimens of cerebral tumours contained in the valuable Museum of the College of Surgeons of Edinburgh, there appeared none in the slightest degree resembling this.

The integuments and muscles having been removed from the anterior surface of the right thigh and pelvis, the head of the femur was found lodged upon the pubes, in a shallow cavity, formed partly by absorption and partly by bony deposit, the bone being kept in its place by a firm fibro-ligamentous attachment to the surrounding osseous surface, which allowed motion, but to a very limited extent. Signs of an old fracture betwixt the two trochanters were very observable. The surface of the bone was very irregular, from the deposit of callus; but it seemed as if the inferior portion of the bone had been driven like a wedge into the upper, to which it was united at an oblique angle. The tibia having been laid bare under the cicatrix formerly noticed, presented also indisputable evidences of an extensive and irregular fracture. It was not deemed necessary to open the thoracic or abdominal cavities, as none of the contained viscera had exhibited any symptom of organic disease during life.

Remarks.—The first thing that must strike every reader is the singular recovery of the patient from injuries so complicated and serious, and under circumstances so adverse, as those described in the early history of this case.

Under the most favourable auspices, and with every advantage of professional skill, a compound fracture of a large and important bone is justly considered a serious injury; but when, in addition, we have another important fracture and dislocation,—all remaining for a fortnight, during a storm at sea, without treatment, or very probably worse than none,—these, again, complicated with concussion of the brain and jaundice,—an escape from death does seem almost miraculous. To the surgeon, such a case would present no little difficulty; for, with fracture so very high in the thigh, it would be next to impossible, I should say, to return the head of the bone to its proper cavity.

That the epileptic fits were consequent upon the accident, there can be little doubt. The patient, previous to it, had had no paroxysm, nor any symptom of cerebral disease; and his mother and brother, of whom inquiries were carefully made, were aware of no hereditary predisposition to either. I cannot believe that to the injury of the head can be ascribed either the epilepsy or the post-mortem appearances. The concussion could not have been a very serious one. Its effects passed rapidly off; and, in the interval betwixt the fall and the first epileptic paroxysm, there was, as far as I could learn from the patient, no symptom showing any lesion or disease of the cranial contents. We must, then, I think, look elsewhere for the cause, and I am of opinion that we have sufficient in the nature of the injuries to the lower extremity. It is well known that injury, irritation, or

certain diseases of remote nerves, are capable of producing general convulsions; and that the two former must have existed in this case must be apparent, considering the length of time the jagged ends of the bones were left to move amongst the soft tissues: the position of the dislocated bone itself could not but produce stretching and compression of an important nerve,—the anterior crural,—and it must be recollected that, from the continued agony, want of sleep, and probably considerable hemorrhage, the patient was rendered in a most favourable condition for the operation of these causes. I am confirmed in this view of the case by the statement of the patient, formerly noticed, that at first he was not unconscious during the fit; thus making it appear that it was more of a convulsive than a regular epileptic character. The fits, with each repetition, must have produced a temporary derangement of the circulation of the brain, as well as irritation of that organ,—causes sufficient to excite the growth of this tumour. As it increased in magnitude, it would of itself become a source of irritation and cause of the disease, the fits increasing in frequency and severity as it grew in size, till at length, acting like a foreign body, it produced inflammation, softening, and consequent coma, paralysis, and death.

I believe that tumours found in the brains of epileptics are almost always the consequence, not the causes, of the disease; for how very few are the cases of early epilepsy in which any morbid appearances are found within the cranium?

It is singular that such an immense mass should have existed, without producing any degree of paralysis, or loss of intellect. For a man in his station, he was rather above the average degree of intelligence.

In regard to another complication in the case,—the jaundice,—that might be an accidental concomitant; but it is also probable that it arose from some local injury to the liver or its appendages at the time of the fall.

BERWICK-UPON-TWEED, January 14, 1851.

Note by Professor Bennett.

On examining the tumour, of the size, weight, and general appearance so accurately described by Dr Kirkwood, I found it to consist of a firm resistant shell or capsule, about one-eighth of an inch thick, containing coagula of blood of a brick-dust colour. The capsule, externally, was of a straw colour, like that of coagulable lymph; but two-thirds of its thickness, internally, was dark red, passing into black. A small portion of the external layer of the capsule, examined under a power of 250 diameters linear, presented a dense mesh-work of fibres, running in waved bundles, and varying in size from the one-twelfth to the sixteen-hundredth of an inch in diameter. The thicker internal layer was composed of similar fibres, mingled with masses of blood corpuscles, in various stages of disintegration. The internal coagula were composed of a few similar fibres, numerous molecules

and granules, and a mass of blood corpuscles, diminished in size, and variously altered in shape, but still presenting their normal yellow hue.

From the result of this examination, there can be little doubt that the tumour consisted entirely of a mass of blood which had been extravasated into the cerebral hemisphere. The external portion had coagulated in the form of molecular fibres, which, aggregating together, and becoming firmer, constituted the external capsule. The internal portion of the clot was also gradually undergoing those changes generally observed to follow extravasation of blood in internal parenchymatous organs.

This interesting case offers a wide field for speculation regarding the pathology and diagnosis of cerebral diseases; but as I propose to allude to it more particularly in another place, in connection with the subject of apoplexy, much repetition will be avoided by my not entering upon it at present.

ARTICLE V.—*Case of Placenta Prævia.* By WILLIAM SMELLIE, M.D.; Wick, Caithness-shire, late of the H. B. Co.'s Service.

AT four P.M., on the 10th November last, I was called to attend Mrs R——, eight months pregnant of her sixth child. The information conveyed by the patient and the midwife in attendance was, that, for a fortnight previous, there had been a constant oozing of blood through the vagina, which had induced the patient almost closely to keep her bed; that for eight days she had felt no *life*, but a sensation of cold and weight in the region of the gravid womb; that for three days the discharge of blood had considerably increased. There had yet been no labour pains; and she was becoming much exhausted. I found the pulse very weak, and above 100; she complained of sickness and faintness, and the bowels were under the influence of castor oil, which had been taken the night before. On examination, I found the vagina filled with clots; and the napkins and towels which had been used were quite soaked with blood. A gush of blood followed the removal of the clots, but immediately ceased. After a lengthened manipulation, I failed to discover the os uteri, and for the time was compelled to defer further interference; and, having plugged the vagina, I ordered her a little wine, and left her, giving strict injunctions to the midwife to send for me on the first appearance of labour pains. I called again, at eight P.M. and found her as I had left her, no flooding having recurred; and, there being no pains, I did not remove the plug to make any examination. The pulse had become a little stronger. About midnight I was again summoned, with the intelligence that some slight pains had come on. I immediately removed the plug, and at once discovered a placental presentation, with the os uteri so far dilated as to admit the hand. I tried to extract the placenta before the