With the Author's kind regds

ACCOUNT OF THE ILLNESS AND DEATH

OF

DR WILLIAM PULTENEY ALISON,

EMERITUS PROFESSOR OF THE PRACTICE OF PHYSIC IN THE UNIVERSITY OF EDINBURGH.

By PATRICK NEWBIGGING, M.D., F.R.C.S.,

EDINBURGH.[1]

[REPRINTED FROM THE EDINBURGH MEDICAL JOURNAL, JANUARY 1860.]

On the 27th of May 1846, whilst prescribing for a patient in the Royal Infirmary, and surrounded by a numerous assemblage of students, Dr Alison suddenly fell down, attacked by a violent convulsion fit, preceded by a gentle scream or cry. The alarm spread quickly through the house, and Dr Paterson, then one of the physicians of the Hospital, was the first to go to the succour of his friend and former teacher. That gentleman, in a recent communication to me from Tiverton, says, "That he found Dr Alison lying on the bed of the patient for whom he had just been prescribing, his neckcloth unfastened, breathing stertorously, and quite insensible; not above a few minutes had elapsed from the time of the seizure." Dr Paterson's impression, from the appearances presented, was, that the attack was of an apoplectic nature. There was evidence of congestion and pressure on the brain, the pulse was full and labouring, and the patient quite incapable of being roused. The report of the bystanders was, that the illness had commenced with convulsions of an epileptiform character. Still he was by no means satisfied that the case was simply of this nature. The treatment at the time could not be doubtful, as Dr Paterson remarks, and accordingly, after removing Dr Alison, on the bed on which he lay, into the adjoining room or closet, off the ward, he was bled from the arm—the blood flowing freely. On the loss of a few ounces, Dr Alison became conscious, and other medical officers of the Hospital, including Drs Christison and Trail, having arrived, he

[1] Read before the Medico-Chirurgical Society of Edinburgh on the 21st December 1859.

had the advantage of acting in concert with these gentlemen, in the management of the case. Dr Christison informs me, that the delirium which at this time followed the attack, was of a violent, and, for such a man, of a highly demonstrative character. About three hours from the commencement of the attack, Dr Alison was able, with assistance, to walk down stairs, and return home in his carriage. He ate his dinner with appetite, felt well, and was able to drive a distance of about six miles, to his country house. He slept quietly during the night; and next day he was, apparently, in his usual state of health.

Dr Alison remained for some days at Woodville, happy and comfortable, reading and enjoying the beauty of that place. He resumed, soon after, his usual duties; but I believe that, for a time, he very properly absented himself from the Hospital. The attacks, notwithstanding, recurred at intervals.

On the 1st of December of the same year, he was attacked for the fourth time, under peculiar circumstances. He had occasion to visit a patient in Roxburgh Terrace, and whilst walking, his foot slipped on the ice, and he fell on his back. He was not in the least stunned, and declared positively that his head received no blow. He rose immediately, but soon felt slight pain in his forehead. He did not however, return home, but entirely forgetting, as was his wont, the necessity of care of himself, he continued to visit his patients, one of whom resided about three miles from town. On returning from this duty, he felt unwell, and desired the coachman to drive home at once, instead of to the house to which he had at first directed him to go. After this he remembered nothing. The coachman felt a jerk in the carriage, and looking back, saw that his master had fallen down. Finding that Dr Alison was insensible, the man stopped at the nearest apothecary, in search of aid, who directed him to Dr Handyside's house in York Place. By the time he arrived there, consciousness had returned, but from the state of the pulse, Dr Handyside advised his being cupped, which was done at once, Dr Alison returning home afterwards. The after-effects of this seizure were in all respects similar to those described as having occurred on the first occasion—no uneasiness, no feeling of discomfort. At the time, it was thought that this attack was possibly connected with the fall upon the ice. The late Dr Davidson saw Dr Alison at this time, along with his other medical friends, and in consultation, it was resolved to try the effect of a seton in the back of the neck, which he continued until his death.

The fits recurred, as I have said, at intervals of about six weeks, until 1850, generally two in number, with slight giddiness between the attacks, and were followed by many hours of sound sleep, from which the patient awoke quite well. During 1850 they were more numerous, being eleven in number, with occasionally three fits at one illness. In 1851 there were fifteen, and these were now becoming more severe. In the following year thirteen, increasing in severity

In 1853 fourteen, two of which were followed by feelings of oppression and discomfort—sensations which, however, soon passed off. In 1854 the number of attacks were reduced to ten; but the separate epileptic fits were more numerous, much more severe, and followed by symptoms of cerebral congestion, of a formidable character. For example, in April of that year, I find it recorded that he had six fits, followed, on return to sensibility, with headache and nervous excitement—the latter state continuing during a fortnight, and then going off entirely.

On the 23d of October, there having been four attacks since the one in April, at six A.M. he had a fit, was well during the day, but at eleven at night he was again seized, and had eleven very severe attacks before the same hour next morning. These were followed for two or three hours by violent excitement, with constant motions of his arms, and great restlessness. I saw him early on that day, and found him quite insensible, almost comatose, with flushed countenance and turgid veins. His case at this time assumed a very formidable aspect, and it appeared to me that recovery was doubtful. He was cupped, and as he was able to swallow when fluid was put into his mouth, an antimonial mixture was prescribed. Dr Christison saw my patient with me in the evening, at which time he was returning to consciousness. On my visit next morning, I found there had been no return of the spasms since eleven in the morning of the preceding day, but the mind was languid, and at times incoherent. He expressed himself as feeling very ill, and that he was paralysed. On the 7th day of this attack he became suddenly delirious. Leeches were applied for the second time, and again on the following day, after which the delirium passed off, and he became quite calm, so that at Dr Christison's and my visit, on the tenth day of the attack, he was again in his usual state of health, and in a week from this date he was able to walk out.

In 1855, the seizures numbered only seven, but the fits in all amounted to sixty, there having been, on the 4th of May, so many as eleven severe fits in twelve hours, but in the following year, even this formidable seizure was exceeded on 19th January, when from 10 o'clock on that, until 12 on the following day, he had twenty-two fits. This attack was altogether a very severe one, and resembled much the one described above, as occurring in October 1854. In 1856, the seizures were eight, the fits eighty-six. In 1857, the seizures were seven, the fits sixty-two. In 1858, seven seizures and fifty-four fits. In 1859, the seizures were five, the fits fifty-nine.

The nature of the terrible attacks to which Dr Alison had become so great a martyr, gradually underwent certain changes. They became less numerous, but the fits were greatly increased in severity, and during this year, the condition of my patient after the fits was very formidable, and most painful to witness—the delirium assuming more and more the maniacal character; and latterly the difficulty of restraint, even with the assistance of two or three male

attendants, was very considerable. Although it was my custom to give my patient, during the stage of sleeplessness and nervous irritability, henbane with camphor and prussic acid, even whilst administering antimony, I had not thought it prudent to use opium, in consequence of the existence of so much cerebral congestion. With the sanction, however, of Dr Smith, who saw Dr Alison in a maniacal paroxysm with me in March of this year, I ordered large doses of solution of morphia and antimony to be given, so soon as the patient indicated signs of delirium. I find it recorded, that after five doses, at six or eight hours' interval, he fell asleep, and in nine hours awoke, calm, quite himself, and from this time he steadily recovered. This occurred on the fourth day from the illness. Such was the usual effect for several future attacks.

On the 4th July he had seventeen fits, accompanied, as was the case latterly, with insensibility, during twenty-four to thirty hours, but this passing off under the use of cold to the head, leeches to the temples, antimonials and purgatives. On the approach of the maniacal delirium, he got the large doses of opium and antimony, with its accustomed good effect, producing sleep on one occasion for many hours—when he awoke quite well. Dr Alison's last attack of illness was on the 20th of August, when he had six severe fits, and some of a slighter character. On the 23d, he had the usual doses of opium and antimony, producing sleep, after which he recovered well, so that I felt no hesitation in fulfilling my intention of going on my holiday, having arranged that my friend, Dr Andrew Wood, should be sent for if requisite; and accordingly, on the 31st of August, he was requested to visit Dr Alison at Woodville, and ascertained that, although he had been occasionally out driving since I had visited him a week before, he had been a good deal excited, with occasional delirium. Dr Andrew Wood at his visit found him quiet; but as he became excited towards evening, he got a dose of henbane, and twenty-five minims of solution of morphia, without, however, producing sleep, so that next morning the dose was repeated, and about 12 o'clock with success, and he awoke quiet, and during the evening continued well; but at 11 at night of the 1st September he became delirious, and this state continued during the whole of the following day, notwithstanding the administration of morphia, wine, etc., by Drs Smith, Wood, and Brodie, who, from this time until the 22d, when Dr Alison died, were most assiduous in their attendance.

I have the advantage of minute notes, kept for me, during my absence, by one who never left our patient's side, and the record there, from day to day, indicates the frequent changes from comparative quietness to complete maniacal excitement, until within a few days of dissolution, when my medical friends remarked the similarity betwixt Dr Alison's state and that of a person sinking under an attack of typhoid fever. There were brief intervals towards the close when our patient was sensible, was able to express his thanks to those around him in his usual calm manner, and when he stated his belief

that his end was approaching. But these peaceful moments were soon followed by excitement, characterised by violent spasmodic action and screaming, accompanied by a peculiar rotatory movement of the hands, or by a condition very frequent in the earlier attacks, at a certain stage of the seizure, when he seemed lost in the contemplation of some blessed vision, during which he expressed his belief that he heard the praises of the heavenly hosts, and that, amongst the number, he distinctly recognised the voices of very dear departed friends.

At this period of his illness, as upon former occasions, it was truly interesting to note the beautiful expression of his intellectual countenance, as he listened with rapt attention to these sounds, of the reality of which he, at the time, entertained no doubt. His return to consciousness from this state, he more than once characterised as a return from heaven to earth. Towards the afternoon of the 22d September, his breathing became gentler and slower, and without the slightest struggle he passed away.

On my return home on the evening of that day from my holiday, I received, at the same time, the tidings of the illness and death of my much-esteemed friend and patient; the too considerate thoughtfulness of my friend and substitute, Dr Andrew Wood, having led him to withhold the information of Dr Alison's illness, from the fear that, were I made aware of his state, I would shorten the period of rest I had allotted to myself, and hasten to be with one of whom I had seen so much during the last ten years.

The *post-mortem* examination was performed about twenty-two hours after death, in presence of Professor Goodsir, Drs Smith, Andrew Wood, Skae, Brodie, W. T. Gairdner, Haldane, and myself. Dr Haldane has kindly furnished me with the following account of the appearances:—

External Appearances.—The body generally, but more particularly the face, were much emaciated. The cadaveric rigidity was generally moderate, but the muscles of the neck were so firmly contracted, that they supported the head when the pillows were drawn from below it.

Head.—The scalp was thin, and almost perfectly bloodless. The skull-cap was of moderate thickness; there were some pretty firm old adhesions between it and the dura mater. On proceeding to remove the dura mater, it was found that the falx cerebri was very extensively ossified; its anterior portion (almost quite up to its insertion into the crista galli), for an extent of rather more than three inches, being converted into a firm bony mass, which had a rough irregular surface, presenting elevations and depressions which had corresponded to the sulci, and convolutions of the adjoining portions of brain; posterior to this large mass, there was a small ossification (about half an inch in length by a quarter in depth). On removing the dura mater, a quantity of clear serous fluid escaped from the cavity of the arachnoid. The membranes of the brain had

a semi-opaque, milky appearance; there was considerable œdema of the pia mater, and much serous fluid upon the surface of the brain. The brain was removed before the ventricles were opened into, so that the quantity of serum contained in them could not be exactly ascertained; but as each lateral ventricle was much dilated, they must have contained at least two ounces of serum. The cerebral substance was healthy, though the walls of the lateral ventricles were rather soft. The cerebellum and pons were natural.

The weight of the encephalon was 52 oz. av. There was considerable ossification of the arteries at the base of the brain.

Thorax.—There were some old cellular adhesions on each side of the chest. Both lungs were a little emphysematous anteriorly; congested and œdematous posteriorly.

The heart weighed 14 oz.; its muscular substance was soft and flabby. The aortic valves were natural; the mitral valve was contracted, barely admitting the points of two fingers; its edges were thickened.

There was a moderate degree of atheroma of the ascending aorta.

Abdomen.—The substance of the liver was natural. The gall-bladder was completely filled with gall stones of an irregularly cubical form, presenting smooth facettes; they consisted of cholesterine coloured with bile pigment. There was not a trace of bile in the gall-bladder, but a small quantity of a whitish glairy mucus.

The cystic duct was obliterated. The other ducts were natural.

Each kidney was closely surrounded with fat, which also extended to a considerable extent into the pelves of the organs. The glands were rather smaller than natural; but with the exception of pretty numerous cysts, which varied in size from that of a small pea to that of a pin point, were sound in structure.

No other lesion found.

It is a frequent observation that anatomy reveals but little which can throw light on the pathology of epilepsy, and yet here we find an amount of organic lesion sufficiently remarkable, and capable, it may be inferred, of producing any amount of disturbance of the cerebral functions. These appearances, however, in many cases, may, after all, be possibly considered as the result rather than the cause of the malady, and yet I am disposed to look upon the existence of the foreign substance, with so rough a surface, occupying, as it did, so large a space in connection with the membranes of the brain, as in a great degree a source of irritation, resulting in paroxysmal attacks of epilepsy and attendant symptoms, indicating a congested state of the vessels of the brain and its membranes.

I feel that I have already trespassed too long on the time of the Society, with the details of a case which, remarkable as it is in many respects, I am aware owes its chief interest to the distinguished man who was so long subject to a disease, so obscure in its pathology and unsatisfactory in its treatment; and yet I know well, that anything, however minute, relating to the history of one so much and so justly

beloved by his professional brethren, will be listened to with interest and respect. Many of us—members of this Society—can never forget the great and lasting advantages which we derived from our preceptor's guidance and prelections in the clinical wards of the Royal Infirmary, in which the philosopher and the physician were so admirably blended for the good of the patient, and the welfare and improvement of the student; the latter not only deriving instruction as to the method of investigating the nature of diseases and their appropriate treatment, but becoming embued—if I may be allowed the expression—with a portion, perhaps but a small portion, of that logical spirit of reasoning, which formed so remarkable a characteristic of our distinguished teacher.

Dr Alison has been removed from amongst us, but we shall ever bear in remembrance, as has been well expressed by a friend, "that strongly built bodily frame, which seemed as if it could defy disease and infirmity—that countenance beaming with intelligence and benevolence—that hand open as day to melting charity—that kindly voice—that heart so full of sympathy for human suffering—that vigorous, clear, manly, and persevering intellect, which was exercised untiringly for the good of his species." Of him it may in truth be said, "He rests from his labours, and his works do follow him."

29, Heriot Row.

MURRAY AND GIBB, PRINTERS, EDINBURGH.