

XII.—DR. THOMAS ADDISON (1795-1860)

G. Pallister

Although Addison was born and brought up in Northumberland, near to Newcastle upon Tyne, he seldom seems to have referred to the fact. He much preferred to think of himself as a Cumbrian, and a native of Banks, a hamlet near Lanercost Priory in Cumberland. His ancestors certainly lived at Banks House in the seventeenth century, and his mother died there in 1841. Several Addisons are buried in one part of the churchyard adjoining the Priory, including Dr. Thomas Addison himself and his parents and grandparents.

His forefathers were yeomen farmers, and in each generation, the younger children, if any survived, would have to leave home and obtain a living somewhere else. This appears to have been the case as far as Dr. Addison's father was concerned. Joseph Addison had a grocery business in the village of Longbenton about four miles north-east of Newcastle. He married a local girl, Sarah Shaw, in 1793 and had two sons, John, baptized in 1794, and Thomas on October 11th, 1795. The elder son seems to have helped his father in the business, because he continued to engage in it after his father's death in 1823.

We can only assume that the younger son, Thomas, must have shown more than average intellectual ability as a youngster, so that his father sent him to the Royal Grammar School in the centre of Newcastle upon Tyne. The Grammar School at that time was under the headmastership of the Rev. Edward Moises, a nephew of the more famous Hugh Moises who had retired in 1787. Edward Moises was a good classical scholar, and his school must have produced some very well

instructed pupils, if they were of the right intellectual calibre. In 1793 Moises issued *Outlines of the Plan of Education adopted in the Royal Grammar School, Newcastle upon Tyne*, and a very intensive system of education it was. The boys learned English, Latin, Greek and Hebrew if they stayed long enough at school. Exercises were set for every evening of the week including Sundays, and school was held on six days of the week. The holidays were a month at Midsummer and a month at Christmas, and the fees four guineas a year for Latin, Greek and Hebrew, with an extra guinea payable for Mathematics and Natural Philosophy.

All we know about Addison's school career is that he acquired such a knowledge of Latin that he was able to take notes in his medical lectures at Edinburgh in Latin, and could speak and write it fluently. There is still an old Greek book in the library of the Newcastle Royal Grammar School, with the signatures T. Addison, L. Benton, and E. Moises, Spital. This E. Moises was almost certainly the only son of the Reverend E. Moises. He died tragically in 1813 while skating on a newly-made pond on Newcastle Town Moor.

When ready to leave school, medicine was the profession chosen by Addison. Thomas Addison's father wanted his son to follow the usual practice of those days of being apprenticed to a surgeon-apothecary. Negotiations were started with an Edinburgh doctor, Dr. John Thompson, to enter Thomas as a resident pupil at £100. a year for three years. The arrangement, however, was not completed and Thomas entered the University of Edinburgh, matriculating in October, 1812. He studied there for three years, being contemporary with Thomas Hodgkin and a little junior to Richard Bright. It is interesting that all three men, Bright, Addison and Hodgkin, later were associated with Guy's Hospital and investigated diseases there to which their names were attached. According to Sir William Hale-White, Addison did not greatly distinguish himself as a medical student at Edinburgh. He took his M.D. degree in 1815 and wrote a graduation thesis *De Syphilide et Hydrargyro*. On leaving

Edinburgh, it is possible that he visited some Continental medical schools, but there is no evidence about this. However, on December 13th, 1817, he paid £22. 10. 0. to Guy's Hospital to be a perpetual Physician's Pupil, and thus started his connection with Guy's which lasted until his death in 1860. Also on December 22nd 1819 he became a Licentiate of the Royal College of Physicians. His exceptional ability soon attracted the attention of the famous Benjamin Harrison, who was Treasurer of Guy's in name, but ruler of the hospital in fact. In the past only Guy's men were ever given hospital appointments, but Harrison managed to get Addison appointed as an assistant physician on January 14th, 1824, although another candidate, a Dr. Seymour, was said to have a recommendation from William, Duke of Clarence, afterwards King William IV. It was soon clear that an exceptionally good practical physician had joined the staff of the hospital and in 1827 he was appointed lecturer in *Materia Medica*. He quickly proved himself to be a good lecturer, by attracting large numbers of students, at a time when the students chose for themselves what courses to attend. He probably made from £700 to £800 per annum during some years, and was now generally recognised as *the man to sustain and increase the fame of Guy's*.

About the time he joined Guy's he became House Surgeon at Lock Hospital. Here he acquired a practical knowledge of venereal disease, a subject which he had already studied in Edinburgh, and on which he always considered himself an authority. At the same time he earned what fees he could, and during his first year in London they amounted to less than 60 guineas. Even during his second and third years they were still under 100 guineas, but slowly rising. Just when he might have become a specialist in sexual diseases, he moved to Hatton Garden and became one of the Medical Officers of the General Dispensary. He studied skin diseases under Dr. Bateman, one of the most famous dermatologists of his day, and could easily have followed in his footsteps. He worked for 8 years at the

General Dispensary and on leaving, the Governors presented him with a silver claret jug or tankard, inscribed with a testimonial of their appreciation of his services.

Again, for a second time, Addison seemed to throw away the opportunity to become a specialist. He seems to have had some objection to specialism in medicine, apparently fearing that it could lead to *quackery*. He frequently said in medical discussions, that disease should not be studied by itself, but as part of general medicine. He also thought that physicians and surgeons should have a large knowledge of each other's provinces. Being a man of large comprehensiveness of mind himself, he probably felt that an enthusiastic medical man—of those days—could know most of what there was to know of both medicine and surgery, including one or two specialisms. He was so modest, or reticent about his knowledge and skill, that few of his colleagues knew about his ability as a skin specialist, *but it is certain that until a comparatively recent period, Addison's accuracy in the discrimination of cutaneous eruptions was scarcely matched* (Sir Samuel Wilks, 1868). His knowledge of the human skin in health and disease, however, was of use to him in his discovery of Addison's disease.

Once installed as a Physician at Guy's, Addison settled down to his life's work as teacher, and researcher in medicine. He soon developed a highly scientific attitude which was never affected either by the fashionable whims of the day, or by long-established medical practice. For instance, he was an early admirer of Laennec and his use of the stethoscope at a time when most physicians had no use for Laennec's ideas. This admiration however, did not prevent Addison from pointing out, at a much later date, when Laennec's views had become fashionable, that indiscreet and unreasoning advocacy of Laennec's cause, was doing more harm to medical progress than the earlier scepticism had done. Again, in a paper published in 1830 on some disorders of women, he strongly opposed the widely accepted view that bleeding and *depletion* were helpful. At that time, women were *bled*

during the last stages of pregnancy, just before childbirth, as a routine treatment.

In 1839 there appeared *Elements of Practical Medicine* Volume I, by Richard Bright, M.D., and Thomas Addison, M.D., Physicians to Guy's Hospital and Lecturers on the Practice of Medicine. It is generally thought that Addison wrote most of this book, and it contains the first accurate account of appendicitis. Sir Wm. Hale-White says, *About forty years ago (i.e. c. 1895) the profession thought that some of its members had discovered appendicitis; they discussed whether it was a new disease, but Addison had given a perfect description of it before most of the supposed discoverers were born.*

It was only towards the end of his career that a few medical writers drew attention to Addison's pioneer work in diseases of the lungs. This was largely owing to the fact that most of his discoveries and ideas went into his lectures or into papers read to Guy's Hospital Physical Society, and so did not reach a wide public. Even so, French and German physicians were more appreciative than British ones. Addison never received any mark of honour from the Crown, from any University or even from the College of Physicians, which did not make him a Fellow until 1838. Perhaps his personality had something to do with this, as he does not seem to have been very sociable or easy to get on with. His students almost worshipped him—at a distance. He was so assured in his manner, and authoritative in all he said; he knew from experience, not from books; he spoke so well and was so obviously doing his best for his hearers. He had a powerful personality which impressed itself on most people, but particularly on his students. Thus, for many years he was the most influential person in Guy's Hospital as far as teaching was concerned, and he was responsible, more than any other person, for the high esteem in which Guy's was held.

He was an impressive figure in the lecture room; tall, well-built, erect, with a fine dark head, large bushy eye-brows

and strong features. He wore his coat buttoned up very high, with a black stock which concealed most of his white collar. A black cord was hung from his coat with his eye-glasses attached. He lectured very vigorously and completely held his students' attention. His sentences were polished, at times verging on the grandiloquent, and he made the most of his tall and handsome figure to impress his words on his hearers. In concluding a very long lecture on some diseases of women, he said, *Gentlemen, if you require an apology for detaining you so long, I find ample material for that apology in the lively interest which we must all feel in the comfort and happiness of the other sex, doomed as they are, both by the decrees of Providence and by human institutions to drink deep of the bitter cup of suffering. Whatever may be HER lot in this world, we, as men, must at least acknowledge that, whilst Infinite Power gave us being, Infinite Mercy gave us woman.*

With his students in the hospital wards, he was equally good. He would examine the patient very thoroughly and then work out the diagnosis, giving both positive and negative reasons for the final decision. He did this so clearly and logically, that his students had no difficulty in understanding him, and they appreciated the pains he took to help them.

His patients, on the other hand, did not have so pleasant an impression. He was not the comfortable, sympathetic type of doctor at the bedside. He was more like a skilful mechanic trying to find what had gone wrong with a complicated piece of machinery, than a kind doctor examining a living, sensitive and suffering human being.

His chief interest was in accurate diagnosis of disease rather than in cure, which is understandable, because in his day there were few reliable treatments for disease. This attitude, though truly scientific and of great value to the progress of medicine, was not necessarily of much help to his patients. Addison would return again and again to the bedside of a hospital patient whose disease he could not diagnose to his own satisfaction. On one occasion he had

gone home and was in bed, but he couldn't sleep for thinking about one of his patients. He rose, called a cab and went back to the hospital in the middle of the night to examine his patient for hernia, much to the astonishment of the ward sister. However, once he had found the cause of the trouble and diagnosed the disease completely, his interest rapidly waned. In his time, there were very few medicines which could actively help a patient to recover from a disease, and when he did recover, it was Nature that performed the cure. All the doctor could do was to arrange the patient's environment as well as possible so that Nature could do its work under favourable conditions. Addison clearly realised this, and being an honest man, placed little reliance on medicines.

On one occasion he was called into a case of abdominal disease and he spent a long time examining the patient. Finally he decided it was *a cancerous disease of the peritoneum*, and he discussed it with the patient's doctor, saw the friends of the patient and was on his way out of the house when he was called back. He was reminded that he had not prescribed anything for the complaint. Addison asked the medical man what he was giving his patient, *Magnesia mixture*, replied the doctor, to which Addison rejoined, *A very good medicine; go on with it.*

Another disadvantage under which he laboured, and which repelled many people, was his unapproachable and distant manner. He gave the impression of haughtiness and superiority and of being hard and cold. Students who had hung upon his words and greatly admired and respected him, were deeply moved when they came to take their leave of him at the end of their medical course. But their sorrow turned to anger when they thought that he did not in the least return their feelings of regret at parting. However, this frigid and haughty manner was a façade to conceal a highly nervous and sensitive spirit. Addison himself said that he never rose to talk to Guy's Hospital *Junior* Physical Society without feeling distinctly nervous, and yet the impression he made on his hearers was of a blustering speaker. He suf-

ferred from fits of depression which caused him to walk about the streets of London in the night, to try to disperse the clouds of misery which enfolded him. Even his wedding day was not free from anxiety. He married a widow with two children, in 1847, when he was 51. The wedding took place in Lanercost Church, and during the night a storm had destroyed part of the roof, some of which had fallen on the altar. "On seeing débris of lath and plaster in place of the altar, Addison clutched my arm and said, *Good God, Lonsdale! is this not ominous?*" His friend and biographer, Dr. Henry Lonsdale, reassured him, and the wedding went off well. Addison, however, mentioned the incident in the course of the day, showing that it had strongly affected him.

With a temperament like this, it is not surprising that he had few friends, and that he preferred to confine his researches and most of his medical activities to the well-known wards and post-mortem room of Guy's Hospital. It was here that he found his greatest satisfaction, both in training medical students to aim at true scientific and professional skill, and in tracking down the different types of disease with which his patients were afflicted. Medicine was his whole life, apart from his holidays at Banks House, Cumberland. He regarded it as not merely a vocation but as a lofty and ennobling pursuit. His discoveries owed little to good luck; they were based on long hours of observation of the sick and the symptoms of their diseases, and of slow laborious work in the post-mortem rooms. Gradually he related symptoms of disease to pathological changes in the bodies of his patients, and so helped to build up a truly scientific attitude to disease, based on reasoning from observed facts. It was in this way that he discovered the importance of the supra-renal capsules, two very small organs of the human body, which sit like caps on top of the kidneys. In Addison's day, and for many years after his death, nothing was known about the work of these organs, but Addison proved that they were essential to life. By the careful examination of a few cases—he quotes eleven in his little book on the subject—he

showed that degeneration of the supra-renal capsules was attended by certain symptoms, one of which was a peculiar bronzing of the skin. When the whole structure of the capsules was involved in degeneration, the disease was always fatal. This is the disease called *Addison's Disease*. In his investigations he seems to have confused what is now called *Pernicious Anaemia* with *Addison's disease*, and he had in reality discovered two new diseases. The interesting thing about his researches is that he discovered diseases which depend upon very complex biochemical principles, which have only recently been worked out. Addison made *the first and feeble step towards inquiry into the functions and influence of these organs* (the supra-renal capsules) *suggested by pathology*—. And this was the beginning of the modern science of endocrinology, which studies the ductless glands, such as the thyroid, the pituitary and of course, the supra-renal glands.

Addison's British colleagues were not impressed by his discoveries; indeed some of them doubted the accuracy of his work. Such small insignificant things as the supra-renal capsules couldn't possibly be of much importance. There was no review of Addison's book in the *British Medical Journal*; the review in *The Lancet* was lukewarm and only in the *Medical Times and Gazette* was there warm praise and appreciation of his historic discovery. In France, however, the leaders of the medical profession soon realised the great significance of the discovery, and Trousseau named the malady *Addison's Disease*. It is also mentioned in the *Poet at the Breakfast Table* by Oliver Wendell Holmes. To Addison himself, his discovery brought no material reward. Early in 1860 his health broke down and he died in Brighton on June 29th; he was buried at Lanercost on July 5th.

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