

Dublin Masters of Clinical Expression

IV. William Stokes (1804-1877)

EOIN T. O'BRIEN, MRCPI., MRCP, (UK).

St. Laurence's Hospital, Dublin

"The chief, the long existing, and I grieve to say it, the still prominent evils among us are the neglect of general education, the confounding of instruction with education, and the giving a greater importance to the special training than to the general culture of the student . . . Let us emancipate the student, and give him time and opportunity for the cultivation of his mind, so that in his pupilage he shall not be a puppet in the hands of others, but rather a self-relying and reflecting being."

William Stokes was born in Dublin in 1804. The Stokes family had for many generations occupied prominent positions in the public life of Ireland. The father, Whitley Stokes was a Scholar and Fellow of Trinity and ultimately Regius Professor of Medicine. A man of broad cultural interest, he was a founder of the Botanical Gardens and the Museum of Trinity College and he translated the New Testament into Irish. As a boy William was, according to his biographer, "indolent and apathetic". We are told that one day whilst sleeping, he felt his mothers tears falling on his face, and that "stung with remorse at having been a cause of so much sorrow, his nature appeared to undergo an immediate and salutary change, and the dreamy indolent boy suddenly became the ardent enthusiastic student". He was schooled by his father and John Walker, an ex-Fellow of Trinity College.

He received his early medical training in the Meath Hospital, Trinity College and the Royal College of Surgeons. In 1823 he was sent to continue his medical studies in Glasgow and Edinburgh. While a student he prepared and published in 1825 a small "Treatise on the Use of the Stethoscope" the first work in English on this instrument — for which he received the then princely sum of £70. He qualified in 1825

and returned to Dublin, where, at the age of 22 years, he was appointed Physician to the Meath Hospital following the resignation of his father. Here he joined Robert Graves on the staff and the two became life-long friends. Two years later, he married a Glasgow girl, Mary Black. At this time we see him as an enthusiastic worker, aiding Graves in the new clinical approach in teaching and busily building up a private practice in a city where wealth and poverty were close neighbours.

Stokes was a prolific writer. In 1834 he became editor of the *Dublin Journal of Medical Science* to which he contributed many papers and he also wrote for the *Cyclopedia of Practical Medicine*. In 1837 he published a book on the *Diagnosis and Treatment of Diseases of the Chest*. This book which received universal acclaim abounds with practical observations. The use of the stethoscope in diagnosis is emphasised and the physical signs of chest disease are succinctly interpreted — "Now it is never to be forgotten that although in these various classes we have a vast number of well marked and essentially differing physical phenomena, there is not one of them which, taken singly, can be considered as a pathognomonic sign". On the diagnostic side, his writing is excellent but when he deals with therapy,

many horrifying suggestions are made which were, of course, popular at the time. In bronchitic children the gums were “freely and completely divided” to allow the teeth to appear. Bleeding was commonplace in most illnesses and the use of leeches “applied to the mucous membrane, as near as possible to the epiglottis” was advocated. “We always find that after leeching, the child breathing becomes easier, the face less swelled, and the skin cooler”. Emetics were also considered advantageous — “I would advise that the medicine should be so exhibited as to produce free vomiting, at least once every three quarters of an hour”, but Stokes later favoured a modified approach whereby it was possible “to keep up a state of permanent nausea, without vomiting”. Purging and the infliction of blisters were further tortures suffered by the unfortunate patients. Stokes, however supported Graves in attending to the general nourishment and well-being of the patient so that “in some cases wine may be liberally employed”. Pulmonary embolism and cor pulmonale are mentioned in this book and there is an interesting account of mouth to mouth respiration in a patient with acute laryngitis and pneumonia whose respirations ceased during preparation for a tracheostomy — “the operator paused, it was a fearful moment, and then rapidly opened the trachea, yet no sound of inspiration followed. Applying his mouth to the wound he inflated the lungs, and produced artificial respiration at least seven times, when a loud rattling inspiration, followed by full and free breathing, proclaimed the triumph of art.”

Stokes is remembered today by the shared eponyms of Stokes-Adams attacks and Cheyne-Stokes respiration. In 1846 he published a paper entitled *Observations of some cases of Permanently Slow Pulse* in which he describes both conditions and in his book *Diseases of the Heart and Aorta* published in 1854 he goes on to elaborate further on the original description, in each drawing attention to the earlier publications of Cheyne and Adams. He attributes both conditions to fatty degeneration of the heart, a fashionable concept based on the work of another Irishman, Richard Quain. Stokes’ description of heart block, although not the first, is undoubtedly the most complete and he astutely observed the occurrence of independent atrial contraction—“The remarkable pulsation of the right jugular vein — more than

double the number of the manifest ventricular contractions — very singular and of a kind which we have never before witnessed . . . On listening attentively to the heart’s action we perceived that there were occasional semi-beats between the regular contractions, very weak unattended with impulse.” His description of the form of respiration now known by his name is almost perfect — “The inspirations become each one less deep than the preceding until they are all but imperceptible, and then the state of apparent apnoea occurs. This is at last broken by the faintest possible inspiration, the next effort is a little stronger, until, so to



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speak, the paroxysm of breathing is at its height, again to subside by a descending scale.”

Stokes made many other original observations: he pointed out that cardiac murmurs varied with posture and that pressure by the stethoscope altered a pericardial friction rub; he recognised that aneurysm of the aorta did not necessarily result in cardiac enlargement; he drew attention to the character of the pulse and the left ventricular enlargement associated with aortic stenosis, and he described paroxysmal tachycardia and treatment of this condition by use of an emetic; he noted the association of amenorrhoea and exophthalmic goitre, but

wrongly attributed this as cause rather than effect; he observed that aortic stenosis could cause loss of consciousness.

Stokes had what so many in his profession lacked, namely the ability to recognise progress and the tolerance necessary to permit a change of attitude — “every hospital in Dublin should have a physical laboratory furnished with such apparatus and appliances as the science of the present day requires for the investigation of disease. It is not to be expected that the senior physicians and surgeons of a hospital could be so conversant with the modern modes of physical inquiry as to be able to train the students in that direction”, but he suggests that a specially trained officer could be appointed for this speciality.



Sir William Wilde and William Stokes
drinking beer.

Stokes received many distinctions: MD. — *honoris causa*—from the University of Dublin a fellowship of the King and Queens College of Physicians in Ireland, honorary membership of the Imperial Academy of Medicine in Vienna, of the Medical Societies of Berlin, Leipzig, Edinburgh, Ghent and the Grand Duchy of Baden and of the Medico-Chirurgical Society of Hamburg, and the National Institute of Philadelphia. In 1845 he was appointed Regius Professor of Physic in the University

of Dublin, a post which he occupied until his death. In 1858 he was nominated Crown Representative for Ireland to the recently formed General Medical Council and he acted as President of the British Medical Association. In 1861 the degree of LL.D (*honoris causa*) was awarded by the University of Edinburgh and shortly afterwards he was appointed one of the Physicians in Ordinary to Her Majesty the Queen in Ireland and was elected to Fellowship of the Royal Society. There followed LL.D, Cambridge and Oxford, Presidency of the Royal Irish Academy and the Prussian Order *Pour le Merite* of Frederick the Great.

Intellectual revival was beginning in Ireland and Stokes knew many of the literary figures of the day. He was associated with the tragic death of Clarence Mangan. One day whilst on his rounds in the Meath he was told of the admission of an ill and miserable looking man, who had arrived at the hospital shivering and almost naked. Stokes recognised the patient as Mangan and arranged his transfer to a private room, where the poet died a few days later from alcoholism and opium addiction having told Stokes that he was the first who had spoken “one kind word” to him for many years. Stokes arranged for the artist Sir Frederic Burton to sketch the poet and three persons are said to have followed one of Ireland’s greatest poets to his burial. Stokes entertained lavishly in his house and there was always a warm family air about the place. In 1849 Thomas Carlyle visited Stokes. Neither, however, impressed the other. Carlyle described Stokes as a “clever, energetic, but squinting, rather fierce, sinister looking man”, whereas Stokes remarked that having met many men in his life who could be described as bores, there was only one word for Carlyle — “hyperborean”. He entertained Carlyle to dinner which was according to Carlyle a most unsuccessful evening — “Foolish Mrs. Stokes, a dim Glasgow lady, with her I made the reverse of progress — owing chiefly to ill-luck. She did bore me to excess, but I did not give way to that, had difficulty, however, in resisting it; and at length once, when dinner was over, I, answering somebody about something, chanced to quote Johnson’s ‘Did I say anything that you understood, Sir?’ the poor foolish lady took it to herself, bridled; tossed her head with some kind of indignant polite ineptitude

of reply; and before long flounced out of the room (with her other ladies, not remembered now) and became, I fear, my enemy forever.”

Stokes was a sensitive individual who suffered from depression — “My profession is on the whole not a depressing one to most men. Nor does it in its ordinary routine depress me. But when a death of importance happens, and that some busy devil within you whispers that had you done something else the result would have been different . . . This and the seeing those we love in sickness are the great miseries of the profession of medicine”.

One of his great interests was medical education and he was a fervent advocate of a good general education as a prerequisite to being a good doctor—“Do not be misled by the opinion that a University education will do nothing more than give you a certain proficiency in Classical Literature, in the study of Logics and Ethics, or in Mathematical or Physical Science. If it does these things for you, you will be great gainers, for there is no one branch of professional life in which these studies will not prove the most signal help to you”. His lectures and writings are packed with salutary advice — “It is with living that medicine has to do . . . The enduring fame of the Dublin contributions to science arises from their essential practicality and truthfulness; they are records of unbiased observation made by men originally well educated, and brought up in a practical school . . . Medicine is an inexact science, but to this there is no reproach. . . . Never, when brought in as consultant, declare the nature of a disease in the absence of the medical attendant. Never originate discussion on medical topics in conversation.” In a valedictory address to the British Medical Association, he must have rankled many of his audience by stating that “the man among us, who by his

unselfish labour, adds one useful fact to the storehouse of medical knowledge, does more to advance its material interests than if he had spent a life in the pursuit of medical politics”. To his son, William, he gives this advice on lecturing—“Don’t be afraid about your lecture. In reading it take care not to read too fast and as much as you can, look your audience in the face”.

Although he avoided politics, he was appalled by the aftermath of the famine — “Oh! that we could all unite in striving for civil and religious liberty that this fair and lovely land for which God has done so much and man so little, might put forth its smothered energies which now burst forth only to ruin and destroy.”

In his later years, Stokes spent his leisure time in the country where he could pursue his love of nature, landscape painting and archaeology. Like Wilde, he found the country full of interest to the “antiquary, historian and Christian philosopher”. At an early stage in his career he became friendly with the artists Frederic Burton and George Petrie; the latter, a competent artist and musician with a love of Ireland’s folklore spent much time wandering around the island painting and collecting national music. It was fitting that Stokes’ last literary work was a biographical memoir of his friend Petrie who he describes as an “archaeologist, painter, musician, man of letters; as such and for himself revered and loved”.

The last years were saddened by the death of his wife and daughter. Following an accident, his health declined and he resigned from all public commitments and retired to his beloved retreat, Carrig Breacc at Howth, where he died on January 6th, 1877. He is buried at the Church of St. Fintan, on the western slope of the Hill of Howth.

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