

DR. WILLIAM WALLACE (1791-1837) OF DUBLIN

by

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THE name William Wallace, M.D., M.R.I.A., of Dublin is inseparably associated with the use of potassium iodide in the treatment of syphilis. The reasons for his neglect by medical historians is, however, not surprising and for two reasons. Wallace lived at a time when the Dublin medical school was at its height and star-studded with such giants in the field of syphilology as Colles, Clutterbuck, Carmichael and Corrigan. Further, Wallace died of typhus, which he contracted from a patient, at the early age of forty-six when in his full vigour. It is my hope that this sketch may in some measure offset past neglects.

Wallace was born, the son of a solicitor, at Downpatrick, Co. Down, in 1791. Nothing is apparently known of him until his indenture to Dr. Charles Bowden at the age of seventeen. Two years later he transferred to Dr. C. H. Todd, eventually obtaining his diploma in 1813. Two and a half years later, in November 1815, he was elected a member of his College. Like so many students his interest in syphilis and skin diseases was first aroused by a good teacher. His second teacher became Professor on the staff of both the Richmond Hospital and the Lock Hospital of Dublin, then the largest institution for the treatment of venereal patients in the British Dominions. Wallace tells us¹

I performed at both institutions the duties of a house-surgeon. It was, in fact, the apprenticeship and the opportunities dependent thereon, which gave to my mind its first bias to the study of cutaneous and venereal diseases and prompted me afterwards to make them an especial object of attention. With my mind prepared in a field which could have no superior, I looked around at the expiration of my apprenticeship, and after I had obtained my testimonium, for further sources of information.

Thus he took himself to London and pupillage with Thomas Bateman at the Carey Street Dispensary, Dr. Laird at Guy's and John Pearson, London's first venereologist at the Lock Hospital. He attended the lectures of Dr. Adams 'known not less as the author of the work on morbid poisons than as the commentator of Mr. [John] Hunter'. Wallace also spent some time with Sir Astley Cooper and John Abernethy.

Thus, magnificently trained, he returned to Dublin to marry 'a very handsome woman'², the daughter of Sir Jonas Greene, the city's Recorder. In 1818, at his own expense, he opened the Dublin Infirmary for Diseases of the Skin at 20 Moore Street. The following year he tells us

I was chosen surgeon to the hospital in Jervis Street and by having my mind thereby constantly directed to general surgical pathology, those more limited views were prevented which might otherwise have been created by an exclusive attention to one department or one class of disease.

Dr. William Wallace (1791–1837) of Dublin

He taught anatomy at the Jervis Street hospital till 1820 when he established his own school behind the skin infirmary. Something of the grand manner of the day lived in its name 'The Theatre of Anatomy'. Here he taught all who came—medical apprentices, 'army classes' and pupils from the Royal Dublin Society of Art. In later years when he was more fully established he re-named the premises 'The Anatomico-medical School' and it became merely a dissecting room for his own apprentices. Perhaps not inappropriately, the premises later became a butcher's shop. Wallace seems to have been well favoured as a teacher. Not all small anatomy schools in Dublin at this time were successful. We learn of one doctor who built his school in the form of a Methodist Chapel, so that he might the more readily effect a sale in the case of failure.³

How did it come about that the Dublin school, that is Wallace and others, contributed so much to our knowledge of syphilis? It is evident from all the writings of the time that the incidence of syphilis was high. The enormous number of cases, I believe, forced doctors to grapple seriously with the problem. If, as some think, present high rates of venereal infection reflect Bacon's old adage that 'prosperity doth best discover vice' there can be little doubt from the poverty of the Irish scene that the opposite holds good also. Since high venereal disease rates are essentially rooted in the social fabric of a nation the scene presenting in Wallace's time is worthy of detailed study.

The late eighteenth century history of Ireland was coloured by riches for a few and poverty for the many. Expansion, by way of trade and population growth, was explosive but unequally distributed. Social restlessness led eventually to the rebellion of 1798 and culminated in the Act of Union under Pitt in 1801 when one hundred Irish M.Ps. took their seats in the London parliament. From this time on the Georgian imprint on Ireland faded. Laissez-faire doctrines inhibited action except where there was agitation. Economic problems increased and calls for public works and land control were unheeded. Chronic social disability resulted. By 1815 the economic plight was acute. Attempts to live off the land were frustrated by the high rents of absentee landlords and lack of local capital. Attempts at industrialisation failed. There was complete failure to cope with the needs of a population which, by 1821, was of the highest density in Europe. Between 1815–44 some 900,000 emigrated to North America. From 1830 onwards many moved to Glasgow and Liverpool. Worse was to follow. The great exodus reached its climax in 1845–49 when a blight of the potato crops, by now the staple diet of an impoverished nation, led to stark famine. Nearly a million died in those few years. A million and a quarter emigrated.

At the beginning of these events, that is in Wallace's childhood, Dublin was the second city of the British Empire and much of the dignity and graciousness of the period remains to us in Dublin today. In Wallace's time the fine buildings must have contrasted severely with the squalor of adjacent slums. In later years he must have been saddened by the decay and overcrowding which followed the Act of Union. Freeman tells us that in 1834 in one area of Dublin 40,000 lived in decrepit houses and he quotes Inglis as saying, 'In one house there were 108 persons lying on the bare floor and in one room seven out of twelve had typhus'.⁴

In the last decade or two of the eighteenth century there were above three hundred commoners, eighty peers and a viceroy in Dublin. Politics added interest and excitement to life and money flowed freely. The social life was lively. Even after the Union a certain vigour lingered but depressing changes followed on the closure of parliament and the departure of members of parliament, peers and professional classes to London. In spite of all, Dublin's population grew from 172,000 in 1801 to 230,000 in 1841, that is four years after Wallace's death.⁵ If something was lost by the departure of the upper classes of the time, the middle classes reflected real Irish vitality. Characters and spirited radical and satirical journals abounded and there was much political controversy. Vitality was also seen in the sphere of learning; mathematic and Celtic studies as well as medicine flourished. The middle classes, as always, indulged their thirst for learning and gentility, salving their guilt feelings by good works among the poor, for even by middle class standards of the day misery was on every hand. Maxwell quotes Curwen who made a tour of Dublin some years after the Union, 'Poverty, disease and wretchedness exist in every great town but in Dublin the misery is indescribable'.⁶ Typhus, long endemic, sprouted into epidemics. Fever hospitals were opened in 1802 and 1804. Boards of Health prescribed regulations for control but they seem to have been of no avail. Of the 1817 epidemic, clearly due to mass unemployment and consequent poverty, the Rev. James Whitelaw adds '... a scarcity of provisions and deterioration in the quality of food following a bad harvest and once it sets in, the overcrowded state of the houses together with insanitary practices such as sleeping of several in a bed and infrequent changes of clothing among the poor classes, rapidly spread the infection.'⁷

In Wallace's working life, Dublin was of necessity well provided with hospitals and there were innumerable charitable institutions, not the least among them being the Magdalen Institution 'for unfortunate females abandoned by their seducers'. Religious associations abounded, one of special interest being The Association for the Discountenancing of Vice. The spirit which evoked all these efforts at alleviating the lot of the poor was matched annually by the poor at the Donnybrook Fair which seems to have been a wild week of revelry, such that it was abolished in later years (1855) as a public nuisance.

With these social conditions prevailing over so many years it is small wonder that the venereal disease incidence was high. Numerous attempts were made to deal with it. As early as 1755 one George Boyle, with lay help, established a hospital for the treatment of venereal disease in Rainsfort Street. After two years it was transferred to George's Lane and settled finally in 1792 in Townsend Street as the Dublin Lock Hospital. Another private hospital was opened in 1758 but had to close from lack of funds sixteen years later. It is generally regarded as the first Lock hospital. Wallace's infirmary for skin and venereal diseases was opened in 1818. It grew to be the biggest of its kind in Britain. Large numbers of male venereal patients were also being cared for at this time at Steeven's and the Sir Patrick Dun's hospitals. Female patients were cared for in all these hospitals but much work fell to the lot of the maternity units. Maunsell quotes the 1832 report of the Wellesley Female Institution '... of 431 children born, 1 in 10 were still born, mainly due to prematurity and syphilis'.⁸ This gives an idea of the extent of syphilis. Such a

Dr. William Wallace (1791–1837) of Dublin

massive amount of work, as these facts suggest required men of great energy. Wallace appears to have been such a man. Over and above his hospital work, private practice and teaching, he found time for research and writing. Between 1819 and his death in 1837 he published no less than five books, three being revised for a second edition, and nearly thirty papers.

His books reflect his wide range of interests. From *Observations on Sulphurous fumigations as a powerful remedy in rheumatism and diseases of the skin*⁹ in 1820 he moved to *A physiological enquiry respecting the action of Moxa* and its utility in inveterate cases of sciatica, lumbago, paraplegia, epilepsy and some other painful paralytic and spasmodic diseases of the nerves and muscles*¹⁰ in 1827.

Of his several books by far his most able effort is his *Treatise on the Venereal Disease and its Varieties*¹¹ first published in 1833 and again the year after his death. In 1842 it was published in German in Leipzig. The first edition is the gleanings of fifteen years' practice and not surprisingly it is rich in detailed descriptions of syphilitic lesions both primary and secondary. Original appearances are carefully contrasted and compared before and after various forms of treatment. He classifies primary sores for the purpose of delineating how best each may be cured. One of his descriptions (p.371) is of special interest. It reads like a description of lymphogranuloma venereum. Wallace classified it as 'Indolent-primary syphilitic bubo'. After pointing out that more than one inguinal gland is involved he adds that the surrounding 'cellular substance (is) more extensively affected'. The overlying skin he calls 'deep livid or purple red'. Fluctuation, breakdown, destruction and sloughing with discharge follow. The whole course lasts months and may be accompanied by mild fever. He concludes 'Why the venereal bubo should occasionally present these characters we must, I am afraid plead ignorant'.

Nor does he neglect the minutiae of therapy. His views are based on painstaking observations and are forthrightly expressed. His authority was to continue long after his death. In 1889 Mapother, for example, quotes Wallace's views on the need for potassium chlorate mouth washes to prevent the ulceration of the gums that may follow mercury treatment.¹² Wallace believed deeply in the efficacy of mercury in the treatment of syphilis. Careful prescribing and regular control by examination were to his mind essential. He cites as proof of the drug's usefulness cases of re-infection and tells us that these were much modified and likely to yield to milder measures.

If Wallace's view seems a bit dogmatic it must be remembered that great controversy raged around the employment of mercury in syphilis. As far back as 1799 Clutterbuck in Dublin was teaching that syphilis got better without treatment and he still had followers. The use and abuse of the drug caused much misery and conflicting views eventually led to a commission to investigate the whole subject.

Wallace was interested too in the iritis of rheumatism and its treatment, and notes its many 'points of resemblance with venereal iritis'. He published a paper on the subject¹³. The burden of the paper is the need to extend therapy. He says 'Thus

* Moxa—a form of treatment whereby a small core or cylinder of combustible material, containing night wort, was applied to various parts of the skin and ignited. The method is said to have originated in China. It is first mentioned in British literature in 1677.

we observe many who scarcely extend their therapeutics beyond the lancet, the leech, and the purge'.

Although there are several earlier references to the use of potassium iodide in syphilis¹⁴ Wallace was the first to employ the drug systematically and to observe its working. He reported 142 cases seen during the years 1832–36 and published his results in the *Lancet*¹⁵ (1837). The article is one of a series of lectures featured by the *Lancet* between 1833 and 1837. They are full of interest, replete with sound clinical sense and accurate observation. Although detailed to the point of being verbose each step of his logic is crystal clear. Wallace recommended a dose of 30 grs. (2 G.) three times per day in plenty of water with or without syrup. Patients, he tells us, show an increase in well-being and appetite. He tells of the need to test the urine to confirm that the drug is being taken. In tertiary ulceration or bony involvement the drug can be taken with mercury, but it is specially valuable where the latter is not tolerated. He also recommends the 'hydiodate of potash', as he called it, in secondary cases. His description of iodism has not been bettered. Ricord in Paris adopted Wallace's principles and soon the drug was in general use throughout Europe.

That secondary syphilis was contagious was not generally accepted in the early 1830s. The possibility was denied by such authorities as Hunter and Ricord. To confirm his own belief, and put the matter beyond doubt, Wallace undertook a series of experiments. He inoculated healthy persons with serum from papules of secondary cases. Mapother writing in 1889 says 'We must condemn his unscrupulous cruelty in inoculating with the terrible virus of syphilis previously healthy persons'.¹⁶ It is of course easy to condemn from a distance when the dust and heat of contesting views have settled. Someone, somewhere, had to do these experiments if thousands were to be saved before the discovery of the *treponema pallidum*. Who better than Wallace with his sound knowledge and faith in a well controlled mercury regime? As he says in the preface of his treatise on venereal disease when talking of seeking truth and progress, he found a 'need to unshackle my mind from authority'.

Under the heading 'Colles' Law or Wallace's Law' John Shaw-MacKenzie challenges Colles' priority in stating that a syphilitic baby cannot infect its mother.¹⁷ Colles' views were first stated in the *Lancet* for 20 January 1837 and again in the same journal on 20 May the same year.¹⁸ Wallace had already given in his own direct manner the reasons underlying the law and had clearly stated it in his series of lectures published in the *Lancet* from 1833, especially in the numbers for 13 February and 7 May 1836.¹⁹ Shaw-MacKenzie points out that Colles himself in his book on hereditary syphilis refers to the work and views of Wallace.

Wallace's medical interests were catholic. By his mid-thirties he was already a senior surgeon and proving himself an able skin physiologist. Cameron²⁰ tells us that he kept a negro in his house for the purpose of making observations upon his skin. Such studies he later applied to the treatment of skin naevi.

There is no doubt from his style of writing that Wallace—of whom no authentic painting or sketch has been found — was a colourful personality and teacher. The legacy of his short life, as it exists in his books and researches, is of such merit as to make him worthy of a better place in medical history than he has hitherto been granted.

Dr. William Wallace (1791–1837) of Dublin

Wallace's case notebooks and life-size drawings, some of these latter made by Wallace's daughters, were purchased by the Royal College of Surgeons in Ireland for £50 the year after Wallace's death. I am grateful to Professor Widdess, the Librarian, for allowing me to see them, and to Sheffield University Medical Faculty for a grant (No. 544) to enable me to view these papers and to photograph a selection of them.

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