History of Dermatology
Br. J. Derm. (1970) 82, 521.
Department of Medicine, Dublin University

THE HISTORY OF DERMATOLOGY IN DUBLIN

DAVID MITCHELL

The story of dermatology in Dublin begins in 1804, when Thomas Moriarty of Roscommon published in Dublin a neat little octavo volume of 64 pages, *A Description of the Mercurial Lepra,* giving a clear account of the course, clinical appearances and origin of the mercurial drug eruption. He also described the fever which accompanied the rash and the profuse desquamation in the healing stage. "Frequently the callous cuticle of the feet or hands comes off entirely like a shoe or glove and is of considerable thickness." Moriarty was quite definite that "this disease, as the name implies, arises from the use of mercury and almost every preparation even when administered in the most moderate doses has produced it, when it entirely banishes the idea of it arising from an intemperate use of that medicine." Although "Dr Gregory of Edinburgh speaks of it as a species of Erysipelas ... the name adopted, first given it by Dr Stokes, Professor in the University of Dublin, seems to be more appropriate to the general nature of the disease."

Commenting further on prior claims, George Alley, M.D., M.R.I.A., in the preface to his *Observations on the Hydrargyria, or that Vesicular Disease arising from the Exhibition of Mercury,* London 1810, stated that Whitley Stokes (1763-1845) had given credit for the first description of this drug eruption to George Burrowes, physician to the House of Industry in Dublin, for establishing mercury as the cause of the complaint that he, Dr Stokes, had annually lectured on since the year 1798, and that he thinks he may consider himself the person who first brought the disease before the public.

Abraham Colles

Abraham Colles (1773-1843) (Fig. 1) is known throughout the medical world for his fracture, but this remarkable man was more than a great surgeon, he was

physician and dermatologist as well. His largest and most important work was his *Observations on the Venereal Disease and the use of Mercury*, published in Dublin and London in 1837, and two years later in Hamburg in its German edition. The book shows his accurate knowledge of the primary and secondary stages of syphilis, including his conviction that the lesions of the latter were contagious and capable of propagating the disease. He recognized and described the protean nature of the secondary rash ... "All the various forms of the syphilitic eruption - the scaly eruption, the copper-coloured blotch, and the papular eruption . . . also the pustular eruption, closely allied to the rupia". In the prevailing controversy as to whether each of these eruptions was caused by a different venereal "poison" and followed a different type of primary chancre, Colles *was* a committed monist. "I do not believe that these eruptions can be considered as characteristic of distinct and different forms of syphilis." "I have not infrequently observed varieties of eruption exist together in the same individual." "I must declare that after long and careful observation I have not been able to trace particular forms of eruption to particular forms of primary ulcers."

He was less certain about the nature of the tertiary lesions, and in fact Kirkpatrick (1924) says that he never understood their connection with the earlier stages. "There is one sequence of venereal eruptions well deserving of our most anxious studies; it is this: a patient whom we imagine has been perfectly cured, by a mercurial course, of some one form of eruption (e.g. the scaly or papular), may, in the course, of eight or ten months afterwards, apply to us for advice under the following circumstances: his general appearance may be that of perfectly good health, but he may have a very few spots of eruption; these may be scattered over different parts of the limbs; the entire number may not exceed a dozen; two or three may be found on the fingers of one hand, or on its palm or dorsal surface; perhaps two or three more on the opposite wrist, and two or three in the neighbourhood of the knee or ankle. These are found of the same character in every patient, whatever may have been that of the original eruption; each spot is of a coppery hue, is elevated above the surrounding skin, and is of horny consistence, or rather of the firmness of an ordinary corn on the toes." "I am at a loss to know what kind of treatment is best suited to such cases ... I have had opportunities of watching some few of these cases for years together, and I have

found that this symptom recurred occasionally for three years after the supposed cure of the original eruption."

Two chapters in the book are of special interest to dermatologists. These are Chapters III and XIII. The former includes an account of the “Eruptive Diseases Consequent on the use of Mercury ". The latter, “Syphilis in Infants” not only announces the general principle which Jonathan Hutchinson was the first to call "Colles's Law ", but also establishes Colles's opinion that the secondary lesions are contagious and capable of propagating the disease, a fact which John Hunter had consistently denied.

Of mercurial dermatitis he writes "Of late years surgeons have become very well acquainted with a peculiar eruption which is occasionally induced by the use of mercury; this affection is Erythema mercuriale." He then gives due prior credit to "Doctors Alley and Moriarty of this city", already referred to in this article. He goes on "It is to be looked for in the early periods of the mercurial course. Sometimes it scarcely attracts the attention of the patient for the first two days, and not until the uneasy sense of itching, which it excites, shall have deprived him of a night's rest, and then, when he complains first of it, it may be found widely spread over the limbs and body." He too refers to the fever which commonly accompanied the rash and he recognized that an idiosyncrasy was involved. "There are some persons whose skin will become affected with this eruption by an inconceivably small quantity of mercury, such as a single blue pill, or a few grains of mercurial ointment which may have been used perhaps for the mere purpose of cleanliness." He had apparently arrived at the cause of the eruption without prejudice, for Colles was no dogmatist. "Having for some time noticed this eruption only among the soldiers under my care in the hospital, I had first suspected that it was produced in a great degree by the oatmeal diet, to which they are so much accustomed; but subsequent observation has removed this error, and convinced me that it is attributable solely to the use of mercury." In his treatment of the dermatitis he was conservative - “With respect to local treatment, I believe that dusting the excoriated parts with any of the mild drying powders will be found to afford as much relief as any other application.”

Colles was born in County Kilkenny in 1773 and entered Trinity College, Dublin, in 1790 and began his surgical apprenticeship in the same year. In 1795 he obtained his B.A. degree from the University and also his Letters Testimonial from the Royal College of Surgeons in Ireland. He then went to Edinburgh where two years later he graduated M.D. Next he made the traditional journey on foot to London where he became the protégé and friend of Mr., later Sir Astley, Cooper. After some months in London he returned to Dublin. His lack of friends and influence in the Irish capital was more than counterbalanced by his good health, abounding energy and astonishing industry. He began his surgical career as a casual helper in the Sick Dispensary, a local charity of the Society of Friends, and then as a District Visitor to the Sick and Indigent Roomkeepers Society. Two years later again, in July 1799, he was elected Resident Surgeon to Dr Steevens' Hospital; “perhaps the most important appointment that was ever made in the hospital “(Kirkpatrick, 1924). Two and a half years later at the age of 28 he was elected President of the Royal College of Surgeons in Ireland. In the same year he was defeated in the election to the Chair of Anatomy in the School of Physic, Trinity College, but two years later again made up for this by his appointment to no less than three Chairs in the College of Surgeons - Anatomy, Physiology, and Surgery. The records show his popularity as a lecturer. In the year of his appointment the class of anatomy numbered 86 students; when he retired 23 years later there were 254 students on the roll. As the acknowledged leader of his profession in Ireland, Colles might have expected the usual honours but he was passed by. Later when his colleagues, led by his old friend Sir Astley Cooper, expressed their disapproval a baronetcy was offered. Colles firmly declined. If, he said, it had been offered to him in the first instance, he should have considered it due to his profession to accept it; but that in consequence of the distribution he intended to make of his property among his children, a hereditary title would be an inconvenient honour.

Arthur Jacob

Arthur Jacob (1790-1874) (Fig. 2), like his master Colles, achieved his eponym when at the age of 28 he published in 1819 his paper on the nervous layer of the retina, or *Membrana Jacobi.* After completing his apprenticeship to Colles at Dr Steevens' Hospital, he followed his master's footsteps, first to Edinburgh

where he took the M.D. in 1814, and then on foot, not only to London, but some thousand miles through England, and then on to Paris.

He returned to Dublin and was almost at once appointed Lecturer in Anatomy and Surgery in the Medical-Chirurgical School, Park Street, Dublin. A little later he became Surgeon to Sir Patrick Dun's hospital. About this time he published the first paper which earns him an eponymous title – "on the Nervous layer of the retina", the so-called "Jacob's membrane".

In 1927 he published a paper of only 6 pages in the Dublin Hospital Reports: "Observations Respecting an Ulcer of peculiar Character which Affects the Eyelids and other parts of the Face". And so added "Jacob's Ulcer" to the classical descriptions of disease. He introduces this first account of basal cell carcinoma like this, "I am induced to call the attention of surgeons to a disease, which although probably observed by many, has never, I believe, been accurately described. I allude to a destructive ulceration of peculiar character which I have observed to attack and destroy the eyelids, and extend to the eye-ball, orbit, and face. The characteristic features of this disease are the extraordinary slowness of its progress, the peculiar condition of the edges and surface of the ulcer, the comparatively inconsiderable suffering produced by it, its incurable nature unless (treated) by extirpation and its not contaminating the neighbouring lymphatic glands."

He seems to have recognized not only the classical appearance of "Rodent Ulcer" but also that there were certain well defined varieties of the disease. He goes on, "The disease may be observed under two very different conditions, either in a state of ulceration, or in a fixed state in which no progress is made towards healing. In the latter condition the parts present the following appearance: the edges are elevated, smooth and glossy, with a serpentine outline; . . . the part within the edges might be ... perfectly smooth, having veins of considerable size ramifying over it ... or it might. . appear covered by florid healthy looking granulations, remaining unchanged in size and form for a great length of time ... or the surface even heals over in patches which are hard and smooth."

William Wallace

William Wallace (1791-1837) was the first Dubliner to whom the skin was of more than passing interest. As he wrote in the introduction to his *Observations on Sulphureous Fumigations as a Powerful Remedy in Rheumatism and Diseases of the Skin* (Dublin, 1820). "It is many years since my attention was forcibly attracted by observing the extreme frequency of diseases of the skin, the great distress they occasion, the inefficacy of the remedies in general use for their relief, the little attention paid to the improvement of this branch of Pathology, and the want of opportunities experienced by the medical student of acquiring almost any information respecting these affections. More recently while I remarked with pleasure that an impulse had been given to scientific inquiries into this most important, though neglected branch of our profession, (on the Continent by Alibert, and in England by Willan) I could not but lament most sincerely that in this metropolis, where, above all other cities, these diseases are extremely prevalent, we remained comparatively insensible to investigations carried on elsewhere with such zeal. It was with these feelings that in the year 1818, determined to use my exertions, however feeble, in calling attention to a matter, which I was convinced would soon plead its own importance, I published a prospectus or plan for the establishment of a Hospital; which might at once afford relief to the poor; supply the means of extending our knowledge of cutaneous diseases, by accurate clinical investigation and extensive observation; and establish a school for the instruction of medical students."

And establish a hospital he did, for "On the first of October of the same year, I had the gratification of seeing my plan carried into execution and have already the satisfaction of its having afforded relief to some thousands of the lower orders of society". Personally founded and maintained at his own expense, the Dublin Infirmary for Diseases of the Skin, 20 Moore Street, in the City of Dublin, was the first hospital of its kind in these islands. The Annual Reports which were published do not seem to have survived. Professor Widdess states that some 25,000 cases of skin diseases had been received in the hospital during the 17 years of its existence.

The book itself, *Observations on Sulphureous Fumigations, etc.* is of no great importance. Essentially it introduces to the English speaking medical world, the pioneer work of Gales and others at the Hopital Saint Louis, Paris, from 1814 onwards on the cure of scabies by sulphur vapour. There is an interesting frontispiece showing a clear diagram of the fumigating cabinet. The patient inside is said to have the likeness of Wallace. On the last page is an offer for sale of these cabinets “all profits to be devoted to the charity” and "all communications on this subject are to be directed to the Register *[sic]* of the Skin Infirmary 20 Moore Street, Dublin".

Wallace remained an enthusiastic fumigator and two years later, in 1822, he published in London *Researches Respecting the Medical Powers of Chlorine.* Chlorine has been recognized and isolated as an element by Humphrey Davy twelve years previously and on the title page Wallace quotes “Chlorine is now known to be an elementary body of the greatest activity, of the powers of which over disease we are nearly in total ignorance". One can well believe that the low concentration of chlorine gas that Wallace was able to generate in his fumigating apparatus may well have acted with powerful bactericidal, fungicidal, and insecticidal effect on the skin. Three years later he was in the press again, this time with *An Account of the Apparatus for the Treatment of Rheumatism and Diseases of the Skin which have been Constructed at the Dublin Skin Infirmary* (Dublin, 1825). In 1833 he published in London *A Treatise on the Venereal Disease and its Varieties. A* German translation of the book was published nine years later.

Wallace made two original contributions to medical science. He introduced potassium iodide to the *materia medica* and he made experimental proof of the infectivity of the secondary lesions of syphilis.

In 1835 he published in the *Lancet* (1835: XXXVI: i: 628) a clinical lecture on the "Cure of Lupiform Syphilis (A Complex Form of the Venereal Disease) with a Hydriodate of Potash". Here is a brief excerpt from his paper: "Its remarkable characters are, its occurring in subjects who have not only had venereal disease, but who have taken mercury in large quantities for it, and its commencing by

tubercles, which pass into ulceration, and form groups of holes, which sooner or later heal... in this form of the disease there is no other medicine which acts with the same certainty as the hydriodate of potash . . . the man whom you see before you commenced the hydriodate of potash yesterday morning. Bring me the tests and let us examine his urine. You see how it is already loaded with the medicine." Not only was Wallace's "hydriodate of potash" accepted as a powerful medicine against syphilis but it remained the chief drug in the treatment of tertiary lesions until the introduction of penicillin more than a hundred years later. His clinical studies had been preceded by numerous animal experiments. He introduced free iodine into the stomach of the dog and was able to show that in 15 min. only hydriodic acid was found in the gastric juice; tincture of iodine was found to be equally irritant. However, in potassium iodide he found a salt which could be given in large amounts without causing gastric irritation. He further showed that it was present in saliva and tears and was indeed secreted in the milk of the nursing mother and hence was available for syphilitic infants. As we have seen from his clinical lecture, he attempted to control his dosage by administering the drug until the urine was "black as ink", when tested with sulphuric acid, chlorine, and starch.

His second important discovery was also published in the *Lancet* (1836: XXXVII: ii: 534) "Experimental Proofs of the Law that these Diseases (the Exanthematic Tribe of Venereal Diseases) are Infectious, and Propagate their Like".

"First Experiment:- The exanthematic virus of M.D. applied to a denuded surface of a healthy individual, from which there resulted a primary condyloma, bubo, and the rubeoliform rash.

"Second Experiment:- The exanthematic matter of W.R. applied to a denuded surface of a healthy individual, from which there resulted a primary condyloma, bubo, ulcer of the throat, and the rubeoliform rash, intermixed with small tubercles.

"Third Experiment:- The matter from W.R. applied to another healthy individual produced a primary condyloma, tumid glands, pruritus, and rubeoliform eruption, mixed with scaly tubercles.

"Remarks:—The Summary of these Interesting Experiments—the secretions of an exanthematic sore are applied to a healthy subject. In a month, consequently long after any physical injury done to the part at the time of inoculation might have been repaired diseased actions commence, that is the primary symptom appears. It progresses; its characters become more and more developed; the glands in the course of absorption enlarge, and in another month, symptoms of constitutional contamination make their appearance; tenderness of the throat, and general indisposition ensue, and, subsequently, a characteristic eruption makes its appearance . . . can any experiment be more satisfactory?"

Satisfactory indeed for scientific design, but hardly in line with present ethical standards for experimental medicine.

Wallace thus not only demonstrated the infectivity of the lesions of secondary syphilis, but also established the incubation period of the disease. Recognition did not come quickly although from 1839 a few continental authors referred to his work. At last, in 1859, the Academie de Medicine publicly pronounced that secondary syphilis was infectious. His work on potassium iodide was more quickly appreciated, for only two years after his publication, Charles Coggiswell in his Harveian Prize Dissertation for 1837 referred to Wallace and "looked forward to a full account of his treatment in a separate work of which we have the promise". The promise remained unfulfilled, for a few months later Wallace died. With his sudden death from typhus in 1837, at the age of 46 years, the activity of his hospital came to an end. He had no colleagues, and had had no time to train a successor. He attended the hospital as usual on Saturday December 2nd, 1837; on the following Friday he was dead.

John Moore Neligan

John Moore Neligan (1815-63) was born at Clonmel, Co. Tipperary, where his father was in medical practice. He went to Edinburgh for his undergraduate

medical studies and obtained the M.B. in 1836. Four years later, in 1840, he came back to Dublin and was almost at once appointed Physician to Jervis Street Hospital. He also became Lecturer on Materia Medica in the Dublin School of Medicine, a private school first located in Digges Street and later in Peter Street. At the age of 27 he published his first book *Medicines, their Uses and Modes of Administration.* This rapidly went through six editions. Neligan was appointed one of the commissioners for the first edition of the British Pharmacopoeia, but he did not live to see the completed work which was published in 1864. He edited the *Dublin Quarterly Journal Medical Science* from 1849 to 1861 when he resigned because of ill health. In 1848 Graves asked him to edit the second edition of his *Clinical Lectures.*

In the same year he published his first work on dermatology, *Diagnosis and Treatment of Eruptive Diseases of the Scalp* (Dublin: Hodges & Smith).

In 1852 there appeared his successful *Practical Treatise on Diseases of the Skin.* The second English edition was published in Dublin in 1866, which was reprinted as the American fourth edition. Earlier American editions had appeared in 1852, 1859, and 1864.

In 1853 he was doubly honoured with the Honorary M.D. from Dublin University and an Honorary Fellowship of the Kings and Queens College of Physicians of Ireland. In 1855 he published in Dublin (Fannin & Co.) his *Atlas of Cutaneous Diseases.*

Edward Dillon Mapother

Edward Dillon Mapother (1835 – 1908) (Fig. 3), a son of a bank official, was a pupil of Neligan at Jervis Street Hospital and later President of the Royal College of surgeons in Ireland. In 1872 he published in Dublin and London *Lectures on Skin Diseases Delivered at St Vincent's Hospital.* It is interesting to note their simplicity and scope. The first edition contained only three lectures: "Parasitic Diseases", "Moist Eruptions", "Dry Eruptions" – not a bad way of presenting dermatology to medical students. The second edition of 1875 had doubled in size and now comprised six lectures. In 1889 he published in London

his collected *Papers in Dermatology*. Before he was 19 years old he began to teach anatomy in the Royal College of Surgeons and in 1867 succeeded Arthur Jacob as Professor of Anatomy and Physiology. He was also the first Medical Officer for Health for Dublin City. He left Dublin in 1888 and lived in London for the rest of his life.

Walter G. Smith

Walter *G.* Smith (1844-1932) (Fig. 4) like his predecessors had many other medical interests besides dermatology. He took an Honours Degree in Experimental Science, specializing in Chemistry, and qualified in Medicine as a Licentiate of the Royal Colleges. Shortly after taking his University degrees in Medicine he became a Fellow of the Kings and Queens College of Physicians of Ireland, and was President from 1892 to 1894. Almost on qualification he was appointed Assistant Physician to the Adelaide Hospital, Dublin, where he was on the staff from 1866 to 1881 and where he started the special dispensary for skin diseases. From an early age he had shown a special interest in diseases of the skin and indeed to the end of his days he was known to the public at large for his wide knowledge and skill as a dermatologist.

Mapother credited him with the first inoculation of *Achorion schoenleini* into human skin, producing the lesions of favus. Smith's account of this, published in the *Dublin Quarterly Journal of Medical Science* of 1871, is as follows: “In one case I inoculated my arm with a portion of crust from a favus head in which the disease had been microscopically verified. In eighteen days a small red circular patch developed at the site of inoculation with a few yellowish scales. Three days later there were three minute sulphur-yellow specks attended with slight itching which gradually increased until within a few days the red patch was considerably enlarged and covered with a moist, easily detached, yellow film. Under the microscope numerous large spores, and a closely inter-related mycelium were seen. My friend, Mr. C. Ball (later Sir Charles Bent Ball, Regius Professor of Surgery), submitted his arm to inoculation from the crust on mine, and in a week a small red patch appeared with one minute dry yellowish spot." In 1879 he published in the *British Medical Journal* the first description of Monilethrix.

In 1881 he was appointed King's Professor of Materia Medica in the University of Dublin. This post carried with it the right of appointment as Physician to Sir Patrick Dun's Hospital. So Smith resigned from the Adelaide Hospital and from his Skin Dispensary. His many publications over the rest of his long life were mainly devoted to Pharmacology and Therapeutics. Though he never lost his interest in Dermatology he does not seem to have practised the speciality.

Wallace Beatty

Wallace Beatty (1853-1923) succeeded Smith in the Adelaide Hospital. He, unlike Smith, was a Scholar in Classics and a member of the rugby XV. He greatly extended the work of the skin clinic and developed a large private practice. He was a popular teacher and was honoured by the University in a special appointment of Honorary Professor of Dermatology. In 1922 he published his *Lectures on Diseases of the Skin,* which had a considerable local success. Beatty was described as "modest, gentle, courteous, and beloved by all". He was on the editorial staff of the *British Journal of Dermatology*.

Fig. 1.—Abraham Colles (1773–1843).

Fig. 2.—Arthur Jacob (1790–1874).

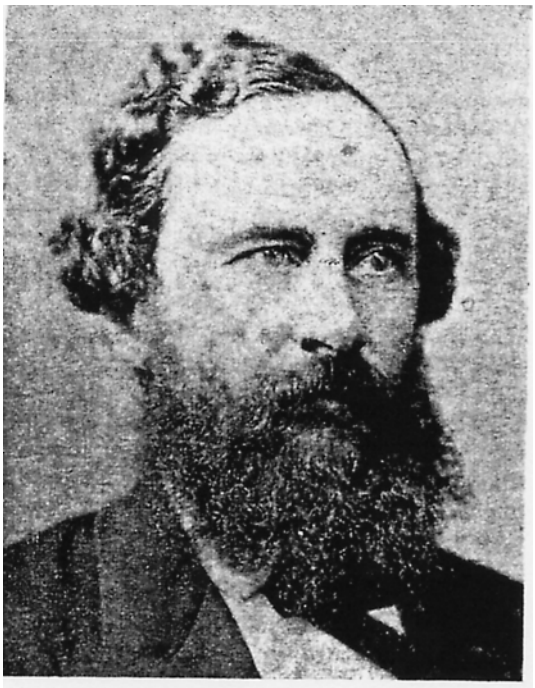

Fig. 3.—Edward Dillon Mapother (1835–1908).

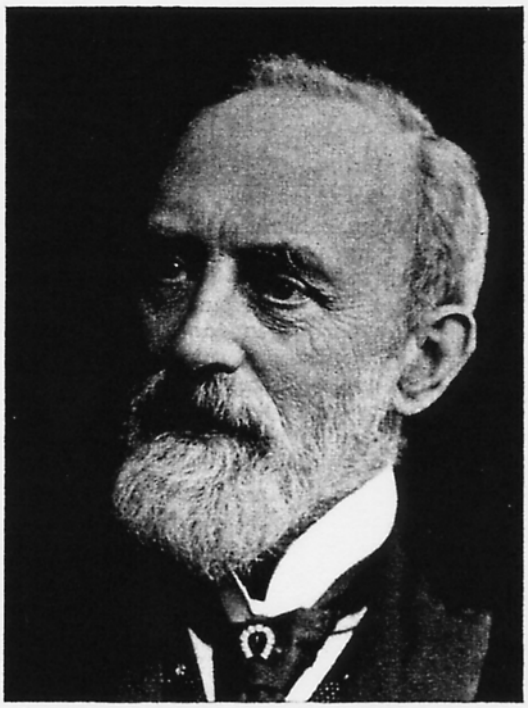

Fig. 4.—Walter G. Smith (1844–1932).