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Lauder Brunton

Mr R. D. Hunter

Abstract

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LAUDER BRUNTON

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A mere glance at this, the chronological details of the career of Thomas Lauder Brunton would suffice to convince even the most uninformed that this symposium bears honour to one whose contribution to medicine and her allied sciences is of a degree which cannot adequately be assessed a full century later. When one considers that by the age of 30 he had gained the Gold Medal Doctorate in Medicine, a Doctorate in Science and had been elected to a fellowship of the Royal Society, it becomes obvious that his secret of success must have been present from the very beginning of his career. I make no apology therefore for not attempting a full biographical view of his distinguished career but merely illuminating some details of his early years in Edinburgh, when those firm foundations were being made.

Brunton came to Edinburgh in the autumn of 1863, and at that time began his association with our Society. Some feature of his character must have attracted the attention of the members of that day as he was immediately appointed to the Finance Committee. On reading the "Fines" book, his sponsor may have had second thoughts when he read of the fines that Brunton incurred for non-attendance at early meetings. Professor Sir James Y. Simpson, the discoverer of chloroform and at that time a distinguished Professor of Midwifery in the University, was also a member of the Society and it is perhaps interesting to note that Simpson's death, 6 years later, was preceded by 3 years of suffering with Angina Pectoris, and one wonders if he had tried Lauder Brunton's remedy. To have been a member of the Society which numbered among its small active membership a man of Sir James's distinction cannot have failed to influence young Lauder Brunton. Aside from his ordinary medical studies and his active participation in the affairs of our Society, Lauder Brunton also managed to carry out some personal work on two drugs; that this was of a high

quality can be judged by their mention as the official reason for his election to the Royal Society at the age of 30. The first of these, Mercury was the subject of his dissertation to the Society in 1865. This is a logical analysis of the known facts on this drug which descended from the panacea of empirical therapeutics to absolute disrepute in many medical centres. The other drug is the subject of his book on Digitalis with some observations on the urine, which appeared in 1868. The inter-relationship between this work and the Society can be judged from some of his own records; he was living to a strict daily food intake and studying the effect of digitalis on volume: urea, chloride and phosphate concentration of 24hour urine samples. His first attempt to keep to the regime ended after 6 days; at the Royal Medical Society dinner he consumed one glass of champagne, threequarters of a glass of claret, a cup of coffee and 150 cc.s of water, greatly exceeding his limits. A second experiment, however, lasted 80 days following which he earned a Gold Medal for his thesis. Following his success in his final examination and a month after his election to Senior Presidency of the Society, Brunton was appointed Resident Physician to the University Clinical Wards of the Royal Infirmary at Edinburgh for a period of 6 months. It was while he was attached to these wards, that he made the observation which stimulates our present gathering. His early experiments with digitalis had included a number in which he had studied the effects of the drug on arterial pressure in animals, and he records the great and essential aid afforded to him by a Dr. Gamgee, who worked with him in the same laboratory and was also a member of the Royal Medical Society. After observing the effects which Gamgee obtained in a similar series of experiments, but with a different drug - amylnitrite, Lauder Brunton took his experimental finding and applied it in a clinical situation; the pathophysiology, he reasoned could be reversed by the

pharmacological action of the drug. His famous paper "On the Use of Nitrite of Amyl in Angina Pectoris", which was published in The Lancet, July 27th, 1867, accords his success. The progression from experimental observation to clinical application was a logical but immense step at that time when pharmacology was still very much in its infancy. Lauder Brunton's contributions were not all made in his early years. I take as an example, not his establishment of the first pharmacological laboratory in the old pantry of St. Bartholomew's Museum or his authorship of many books and papers, which includes the first physiologicallybased textbook on Pharmacology and Therapeutics, but a small article, "Preliminary Notes on the Possibility of Treating Mitral Stenosis by Surgical Methods", which appeared in The Lancet of 1902, two years before his retirement, and which demonstrates the continuation of his rational scientific approach to his patients' problems. In this article he described not only his idea of the value of splitting the stenosed valve, but he went on to mention his experiments on the technique and the type of instruments involved, before offering the idea to his colleagues. This approach drew the rather caustic comments of the leader writer in the next issue of Lancet. We gather that he had proceeded no further than the table of the dead-house in making his investigations. Brunton's defence of his article includes the quotation: "Art is long, but time is fleeting". The Art of Mitral Valvulotomy is here today, but following this article in the Lancet over 20 years elapsed before the further experiments of Cutler and Levine led to the first successful operation in 1924. The importance of this as an example lies in the fact that not only did Brunton suggest valvulotomy as a therapeutic procedure, but he took time to perform some preliminary experiments to convince himself of the feasibility of his procedure. Lauder Brunton was a man whose mind lay not in the laboratory or in the ward, but half-way between the two. We do well to pay tribute to one whose contribution to scientific medicine must stand as an inspiration to all those who now work or hope to work in that ever expanding field.