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Glasgow Dental Hospital and School: The Early Days *

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FOLLOWING the passing of the Dentists Act of 1878, a meeting of interested Glasgow dentists took place in March 1879, under the chairmanship of James Rankine Brownlie. They resolved to form a committee " ... to see that proper opportunities for education were afforded to students preparing for the examination in dental surgery. " Concurrent with this action the Medical Faculty of Anderson's College (described by a contemporary writer as " a dingy building " on the north side of George Street between John Street and Montrose Street) recommended the establishment of a dental department within the College.

After consultation with representatives of the Glasgow dentists, a notice appeared announcing the commencement of the summer medical session on 6 May 1879. Part of the notice read as follows:

Dental Diploma

Courses of instruction in Dental Anatomy and Physiology and Dental Surgery (qualifying for the Dental Diploma) will be conducted by Professors A M Buchanan and James Dunlop, as may be arranged.

The first lecture delivered by J Rankine Brownlie on Tuesday 3 June 1879 inaugurated The Glasgow School of Dental Surgery. Reporting the event, *The Glasgow Herald* of 4 June contained the following item:

The first of a series of lectures to dental students was delivered yesterday in Anderson's College. The event was one of much interest to the profession inasmuch as it was the inauguration of the first school of dental surgery in Scotland.

Within a few months the Managers of the College provided a suite of rooms and six dental chairs signalling the opening of the hospital on 10 November 1879. Thus although Edinburgh was first with its Dental Hospital, systematic teaching did not begin there until the end of October. The claim to seniority by Glasgow is further strengthened by a note in the first calendar of the Glasgow School:

The Dental Officers take this opportunity of thanking the Managers and Trustees of Anderson's College for the very liberal way in which they have interpreted the wishes of the Dental Profession, and have thus placed the Dental School of Glasgow in the position of being the first in operation in Scotland.

The regulations laid down for the Dental Diploma in both Glasgow and Edinburgh were similar. Candidates should have been engaged for not less than four years in acquiring professional knowledge, including at least three years apprenticeship under a registered dentist. Attendance at a recognised Dental Hospital was also included, but many candidates were excused this if proof of ability in practical dentistry was forthcoming. Subjects covered in the curriculum were: Anatomy (General), Anatomy (Head and Neck), Dissections, Physics, Chemistry, Practical Chemistry with Metallurgy, Surgery, Medicine and Materia Medica.

Attendance was required at a recognised General Hospital with clinical instruction and courses special to dentistry, namely Dental Anatomy and Physiology, Dental Surgery, Metallurgy and Mechanical Dentistry.

The examination consisted of written papers and an oral examination and although it was stated that candidates might be tested in manipulative skills, there is no record that this was ever exercised at this time. Attendance figures for Glasgow Dental Hospital show that in 1881, there were 1,835 patients, 2,367 in 1882 and 2,432 in 1883. There was no doubt that the Hospital's facilities were being used.

Following the amalgamation of Anderson's College with several other educational establishments - the new West of Scotland Technical College, the School of Dental Surgery and Dental Hospital of Glasgow, as it was then known was forced to find alternative accommodation and on the 4 May 1885, the new premises situated on the top floor of 56 George Square were occupied to become the Glasgow Dental Hospital and School. A committee of management had been formed which drew up a new constitution based on that of the London Dental Hospital. That the emphasis appeared to have shifted from a teaching establishment to a hospital service can be seen from the public announcements of the Committee of Management in subsequent years, stressing the charitable side of the Institution's work. At any rate that was the impression that the Managers seemed to be giving. At one such meeting it was said:

... as the Hospital was a public charity of the same nature as our infirmaries and only incidentally served in some measure for the technical education of dentists it should be supported by public benevolence.

Commenting on the move from Anderson's College, the Editor of the *Journal of the British Dental Association* as it was then known, had this to say:

... We regret to hear that more room being required owing to an extension of the technical classes, the hospital has received notice to quit and will now be obliged to provide itself with fresh habitation, probably of much less economical terms. Glasgow is certainly rich enough to need it.

James Rankine Brownlie was appointed Dean in 1885 and although a record of patient attendance was not kept for the whole of that year, 3,876 patients were treated in the first eight months. For the succeeding three years figures are shown in the following table:

Patients Attending Glasgow Dental Hospital and School 1886-88 †

Year	Patients Attending
1886	6,825
1887	8,242
1888	8,267

During this period there was an increase in the number of unqualified and unregistered dentists practising in the City. This so incensed the dental students in the School, that in 1887, they drew up a petition which they presented to the West of Scotland Branch of the British Dental Association.

They asked for protection:

... against men in Glasgow who without right or title are practising dentistry to the detriment of those in the profession who are spending time and money in order to make themselves proficient and to give them a legal right to call themselves 'dentists.'

Unfortunately, as it soon became clear, these men could not be prosecuted as long as they did not use the title 'dentist' or 'dental surgeon.'

In 1889 the work of the Hospital was interrupted when notice was received from the landlord that on account of complaints received from other tenants in the building, the premises must be vacated. Consequently the Hospital was relocated at 4 Chatham Place (now Cathedral Street) where it functioned until 1985. That the new location was not as well patronised as the old one can be seen from the opening years' attendance figures:

Record of Patients Attending at Chatham Place 1889-1895

Year	Patients	Extractions	Preservative Operations
1889	6,048	4,932	990
1890	4,622	3,391	1,231
1891	4,381	3,258	1,125
1892	4,237	3,511	726
1893	5,727	3,494	2,233
1894	7,122	3,187	3,305
1895	7,068	3,953	3,115

As a result of a growing academic reputation, income brought in by student fees increased and the Managers recorded their appreciation "with gratitude". But once again the need for larger premises was evident and in May 1896 the Hospital and School made its fourth move, this time to 5 St. Vincent Place. In the period from 1896 to 1902 the number of patient seen amounted to 47,000 of which 32,468 received extractions and 22,432 'preservative' operations.

At the Annual General meeting of the Glasgow Dental Hospital and School held on 27 February 1899, the Lord Provost of Glasgow, Sir David Richmond, presided. The Secretary reported that the number of patients seen during 1898 had been 6,577; 1,085 more than in the previous year and 2,543 in excess of 1896. He pointed out that one of the features of the Hospital work was the small cost at which it was done. The whole expenditure for the year was a little over £250 giving an average cost per patient of 9d or 8d for each operation. In the fourteen years since moving from Anderson's College the number of patients treated amounted to 82,392.

By 1902, the number of students had increased to 26 and once again it became obvious that more commodious premises would be necessary to cope with the increasing number of patients, and in 1903 premises at Dalhousie Street were obtained. Throughout this period, as described by T Brown Henderson, many students enrolled solely to learn the rudiments of the operative techniques and were only interested in this particular class. They had no intention of completing the course nor of sitting the diploma examination. Many were already in practice and others used the class as their sole training prior to opening a dental practice. They had little if any knowledge of anatomy and physiology, and had no scientific education.

As a result of this abuse of the teaching facilities, it was decided that from the beginning of 1903, entry to the Hospital would be restricted to students who could produce evidence that they had passed the first professional examination in physics, anatomy and physiology.

A year's notice was given of this change and from there being one hundred students before the introduction of the new regulations, the number fell to just two.

Patient attendances at the Dalhousie premises continued to increase. Between 1903 and 1914, the number of patients seen amounted to 150,087 of which 35,809 received extractions and 81,618 conservative operations. It is interesting to note that in 1910 an approach was made to the University of Glasgow with a view to affiliation. The University Court although sympathetic were not able to consider the idea as the Dental Hospital was not qualified in terms of the Universities (Scotland) Act of 1889 as a 'college' and also it was not sufficiently endowed. The Hospital at this time had no endowments and so the negotiations came to naught.

A new practice at this time by the unregistered city practitioners was to send patients to the Hospital to have their teeth extracted. When this had been completed, these dentists would then fit artificial teeth. In order to combat this the Governors decided to open a laboratory to supply dentures constructed in the Hospital. These dentures were priced at £2 for a full upper or lower set. The announcement came in the Annual Report:

To meet the illegitimate use of the Hospital, and to counter-act the entrappings of poor patients by unscrupulous, irregular practitioners, the Board have instituted a mechanical laboratory.

Although well advertised in the local papers, only twenty three patients availed themselves of the new service offered by the Hospital in the first year, but with average wages for all occupational classes being around £80 per annum, £2 for a denture would be a considerable outlay at this time.

Since its inception, the income from students' fees had been used to maintain the Hospital instead of being used to develop the Dental School. It was therefore an important decision when the Governors after listening to the Dean's submissions decided to retain students' fees for the use of the School. This meant that for the first time the teaching staff received payment for their services - £10 per annum. Other recommendations to augment the Hospital income were: increasing the charge for gold fillings, charging one shilling for plastic fillings, hitherto free and three pence per extraction. The outbreak of war a few months later meant that much of the scheme could not be implemented, but a new administration had been drawn up both for the School and the Hospital which it was hoped would usher in a new era. But, according to T Brown Henderson, the failure of the Governors after the war "... was a blunder which had the most serious effects upon the work and status of the School."

The introduction of anaesthesia, both general and local, allied to the 1878 Dentists Act with its provisions for recognised standards of dental education, gave a tremendous fillip to the demand for dental treatment in Scotland in general and Glasgow in particular. The use of anaesthetics must have been one of the most cogent reasons why patients would be more willing to pay a visit to the dentist. To have a tooth removed painlessly would have been looked upon as impossible at the beginning of the nineteenth century; by the end of the century it had become a reality, most dental practitioners had acquired anaesthetic equipment and were not slow to advertise the fact.

At the Glasgow Dental Hospital and School general anaesthetics were given from an early date, but a detailed break-down of the agents used is not consistently available until the 1880s. Ether, nitrous oxide, ethyl chloride and chloroform were all used at different times, sometimes as a 'cocktail' of two or more. It probably depended on the anaesthetist on duty and on which anaesthetic was the 'flavour of the month'.

Between 1888 and 1902, about 335 patients were given a general anaesthetic for the extraction of teeth. This number increased to 2,945 in the period 1903-1913, still a small proportion of the total number of extractions which amounted to 32,279. The incidence of carious teeth in children is reflected in the number of extractions carried out on patients under 15 years of age - 10,533.

Over a period of 11 years, the mean number of extractions carried out was 2,934.45 per year. It is interesting to note that the last use of chloroform at the Hospital was for two cases in 1903 whilst the Royal Hospital for Sick Children continued to carry out dental extractions under chloroform as late as 1921.

In the period 1914-1921, the number of general anaesthetics administered fell to 698, due to the introduction of local anaesthetics; nevertheless, 27,307 were carried out which gives an annual mean of 3,413.37 extractions over a period of 8 years, a real increase in numbers in spite of staff and student depletions during the 1914-18 War.

The first mention of the use of a local anaesthetic at the Hospital was in March 1909 when two patients were successfully given this form of anaesthesia for the first time,

although T Brown Henderson notes that in 1879, W S Woodburn had experimented with cocaine hydrochloride but found it unsatisfactory and abandoned its use. From then on, local anaesthetics were given in ever-increasing numbers as general anaesthetics declined steadily. Commenting on the use of local anaesthetics in the Hospital for the first time, the writer of the yearly report for 1909 says: "...the administration of local anaesthetics was brought about by the demonstrations of Mr J C Gardiner, [one of the members of staff] ...it is desirable for the sake of the teaching that this be continued."

During 1909, 22 local anaesthetics were given, increasing to 316 in the year 1913; in the Annual Report for 1921 this number had increased to 2,265. It can only be assumed from the records that the remainder of the extractions were carried out without any anaesthetic, although it is possible that an ethyl chloride was used, but there is no evidence for this.

In addition to the introduction of local anaesthetics, other innovative developments, such as aseptic techniques, effective therapy for periodontal conditions and x-rays led to improvements in treatment and recognition of the Hospital's increasingly important role in the treatment of dental disease in the City. These factors and others were responsible for large increases in patient numbers and would once again necessitate a further move to new premises in Renfrew Street in 1932.

* Adapted from R M Ross, *The Development of Dentistry: A Scottish Perspective circa 1800-1921*. Unpublished PhD thesis, University of Glasgow, 1995

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† Tables based on *The History of the Glasgow Dental Hospital and School 1879-1979*, T Brown Henderson 1979