

Middle Articles

MEDICAL HISTORY

William Henry Dobie, of Chester: Disciple of Lister

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Brit. med. J., 1967, 2, 42-44

In October 1877, ten years after he had published his first report on the antiseptic method of surgery, Joseph Lister left Edinburgh, having accepted the Chair of Clinical Surgery at King's College Hospital, London. He took with him four men—Watson Cheyne and John Stewart, who were qualified, and two student dressers, James Altham and Henry Dobie.

The career of Watson Cheyne (1852-1932) is well known. He remained in London as a close friend and collaborator of Lister, and in 1887 became surgeon to King's College Hospital. He did much to develop Lister's methods and to establish these in London. For many years he was Lister's private assistant.

John Stewart (1848-1933) also had a notable surgical career, returning in 1879 to his native Canada, where he became professor of surgery at Dalhousie. At the advanced age of 67 he served in France with the Canadian Forces in the 1914-18 war. He died in 1933, and by his introduction of the antiseptic method to Canada contributed to the advance of surgery in North America.

James Altham (1856-1906), after working in London for a few months with Lister, returned to Edinburgh to qualify, and became a general practitioner in Penrith.

Henry Dobie (1856-1946) was the fourth member of the team. His grandfather, William Johnstone Dobie, studied in Edinburgh and practised at Gresford, near Chester, for many years. His father, Dr. William Murray Dobie (1828-1915), was born in Liverpool, graduated with distinction in Edinburgh in 1849, and after holding resident posts there studied in Dublin, Paris, and Berlin until he finally settled in Chester. From 1875 he was physician to the Chester Infirmary, and died aged 86 after a long and distinguished service to a community which held him in great esteem. He had as one of his patients Mr. Gladstone, for whom he cared in his declining years at Hawarden. Of ten children three sons, Henry, Herbert, and Cyril, qualified in medicine and practised in Chester.

Henry Dobie was born in Chester in 1856. In the family tradition he became a student in Edinburgh. His father had been house-surgeon to Professor Syme, and so came to know Lister. Not surprisingly Henry soon became attached to Lister's wards. It must have been a great thrill for the young dresser to receive the following letter from his chief:

9 Charlotte Square,
Edinburgh.
14th June, 1877.

My Dear Mr. Dobie,

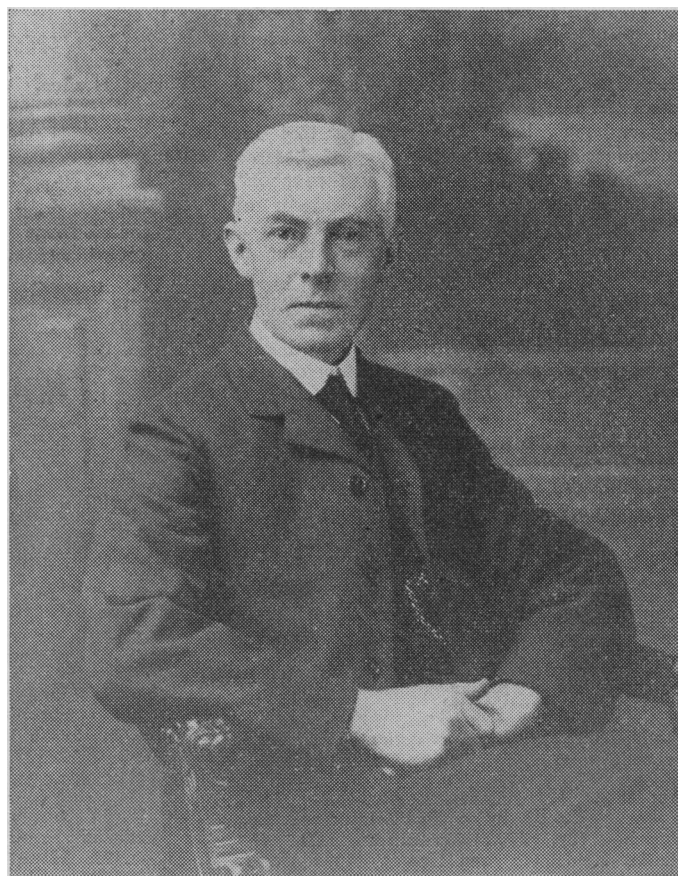
I have no doubt that by the end of the Summer Session you will be trustworthy in antiseptics. I do not know whether you have passed your first examination for the M.B. or the first M.R.C.S. London. One or the other would, I think, be required by the King's authorities. If you have passed either of these

examinations, it would give me great pleasure to have you for one of my dressers. Please let me know by return.

Yours very sincerely,

JOSEPH LISTER.

Dobie accepted the invitation, and a record of Lister's teaching and surgical work during the last months in Edinburgh and the first months in London is preserved in his clearly written notebooks.



William Henry Dobie, of Chester (1856-1946).

Dobie's Notebooks

The notebooks open on 2 May 1877 with a long and careful account of the clinical findings and operative treatment of an arteriovenous aneurysm in the thigh. Lister operated on this patient successfully by aneurysmorrhaphy and proximal and distal ligation of the femoral artery. Many other operations are

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described in detail with Lister's comments on each problem. On 30 May, discussing a case of ruptured rectus femoris, Lister suggested that repair might be effected by silver wire passed through drill-holes in the patella. "With antiseptic precautions the opening into the knee joint would be of no moment." This was a bold statement at the time. On 3 June Lister operated on the patient. He found that drilling of the patella was unnecessary, and achieved a repair, bringing together the lateral expansions of the suprapatellar structures. In doing this he opened the joint, and there were no ill effects.

On 4 June a ruptured urethra was repaired successfully by passing a bougie, cutting down on the urethra, and inserting a catheter. The victim was a boy of 14 who, "walking on a rail in the Meadows, fell straddled across it."

Haemorrhoids were injected with carbolic acid, and Lister suggested that varicose veins could be treated in a similar way "to cause coagulation and an adherent clot." Even with antiseptic methods he did not favour ligation procedures, and on 3 July he injected half a minim of carbolic acid into varicosities rendered turgid by the application of a tourniquet. The procedure was done with full antiseptic precautions, including the constant use of the spray. The results were at least encouraging.

On 9 July Lister excised the lower jaw for "sarcoma." A few days later he accomplished a difficult removal of a solid thyroid tumour, and from this case he speculated on the desirability of incising right down to the trachea and then working outwards to ligate the main vessels prior to removal of the gland.

These and many other records reveal Lister's great versatility. Not only are the details of technique of great interest, but also from the reports of his astute pupil we may recognize how Lister looked afresh at every case, and was constantly analysing his experience and devising new methods.

Dobie records also the work of other contemporary Edinburgh surgeons. John Chiene (1843–1923) is described stretching the exposed sciatic nerve for sciatica. Dobie did not think much of Professor James Spence (1812–82), who, on 23 May (in the approved pre-Listerian virtuoso style), amputated at the hip joint for a malignant tumour, and completed the operation in 30 seconds. "It was performed antiseptically (?). Spence said that he did so by the desire of his friends"—presumably the relatives of the patient—"and allowing for certain weaknesses he saw no reason to object, though for his part he thought it only complicated matters." Thus we are reminded that even in Edinburgh the diehards were still unconvinced. This patient died soon after operation from haemorrhage, but, very fairly, Dobie records that this was Spence's twelfth amputation at the hip joint, and that five of these patients had survived.

From 8 October 1877 Dobie's notebooks contain Lister's first lectures and operations at King's College. At first Lister's class was small, and he was treated with suspicion and intense criticism. Even by January 1878 Dobie recorded: "Lister just returned from his holiday; he was prepared to lecture but found no audience." In time his patience and integrity overcame opposition and bigoted opinion.

A Historic Case

Of the early cases at King's, concerning which Dobie has given us eye-witness accounts, it is worth quoting in full one which is historic. On 15 October a case of transverse fracture of the patella was discussed. Lister made the revolutionary proposal that he should cut down on the patella, drill the fragments, and draw them together with silver wire. Lister's suggestion is recorded by Dobie as follows:

This is an operation which Mr. Lister has often thought should be performed. It certainly involves opening into the knee joint, but with antiseptic precautions, this in his opinion involves no risk: and if one believes this to be the case and that better union will be obtained, then it becomes one's duty to

perform the operation. It is not a question of "May I do it" but "I must do it."

On 20 October the operation was carried out, and here is the dresser's account:

October 20th.

Transverse fracture of the Patella. Operation.

This operation should have been performed October 17th but the patient would not give his consent, but insisted on being sent home. He came back, however, two days ago willing to submit to an operation.

Mr. Lister, on exposing the ends of the fragments by longitudinal incisions, found some fibrous structure impacted between them: they were also covered by organising lymph: this was first cleared away.

Next a dependent opening to secure free drainage, was made into the knee joint and a skein of horse hair introduced . . . the fragments were then drilled and a strong piece of silver wire passed through the holes and, the fragments being ascertained to be exactly opposite, twisted up over the patella. The twisted ends were brought out at the wound, which was stitched up with silk (carbolicised): A small horsehair drain was introduced into this wound.

A posterior splint was applied, and the limb laid upon an inclined plane. Strict antiseptic precautions were, of course, taken.

Eight weeks later Dobie (who recorded the progress of all his cases with great care) describes how Lister, having confirmed that union was sound, removed the silver wire. With justifiable pride Lister said to his students, "I trust that by the end of the session all members of this class will be convinced that the antiseptic treatment is worthy of their attention." He quoted his Continental colleague Sartoff, long converted to the antiseptic method, who had announced that his patients "do not die from operations now, but only from other causes." Somewhat wearily Lister added, "I wonder how long it will be before the truth is recognized by English surgeons! If it is the truth, gentlemen, the time will come."

In the early months in London patients were few and far between, but many other interesting cases are recorded, as, for example, major amputations at the hip joint and an operation for strangulated hernia. In this instance the bowel was gangrenous, and Lister did a resection with end-to-end anastomosis. The patient survived only a few hours.

Some Biographical Details

Dobie returned to Edinburgh in the summer of 1878 to complete his studies for his degree. Soon after his return he had a letter from Lister:

Do not suppose that I was not much pleased to receive your letter and to hear of your doings. I was also glad that you could say that you did not regret having been in London last winter. You saw me and helped me at a time when things were at a very low ebb on my wards, and when, I assure you, your cheery help was extremely welcome. . . .

In due course Dobie returned to Chester to enter a busy general surgical practice. He became surgeon to Chester Royal Infirmary, and popularized Lister's methods in the north-west of England. He continued to use all the details of Lister's technique, including the spray, for many years, and practised with notable success until he retired in 1934. Henry Dobie died at Chester in 1946, the last survivor of the four dedicated men who supported Lister during one of the most trying periods of his career.

When Henry Dobie died, having outlived his two younger brothers, who were his partners, tribute was paid to his skill, devotion to duty, and complete self-abnegation. His death was thought to mark "the close of an age." He was one of the dwindling group of general-practitioner surgeons who, while conducting extensive general practices, performed, in their local

hospitals and in the homes of their patients, skilful and versatile surgery.

In this centenary year of the publication of Lister's antiseptic method it seems fitting to recall and salute one of those who by his loyalty and devotion played his part in establishing the greatest surgical advance of the century. It is right also to record a family in which a notable medical tradition has been handed down from generation to generation. William Henry

Dobie represented the third line of doctors in his family. His son, Dr. John Dobie, has recently retired from active work as an anaesthetist in Chester, and a fifth generation is represented by a granddaughter, Dr. Elizabeth Dobie, recently qualified in London.

I am greatly indebted to Dr. John Dobie for allowing me free access to his father's notebooks and letters.

Publications of Lord Lister in the *British Medical Journal*

The following list has been derived from the booklet "A List of the Original Writings of Joseph, Lord Lister, O.M.," by Mr. William LeFanu, published by Livingstone in 1965. We are grateful to the author and publisher for permission to use this source.

1867-70

On the Antiseptic Principle in the Practice of Surgery. A paper read before the British Medical Association, Dublin, August 9, 1887. 1867, 2, 246.

An Address on the Antiseptic System of Treatment in Surgery. (Medico-Chirurgical Society of Glasgow, 2 May 1868.) 1868, 2, 53.

Introductory Lecture (on the Causation of Putrefaction and Fermentation) delivered in the University of Edinburgh, 8 November 1869. 1869, 2, 601.

A Method of Antiseptic Treatment applicable to Wounded Soldiers in the present War. 1870, 2, 243.

On a Case illustrating the present Aspect of the Antiseptic Treatment in Surgery (dated at end: 31 December 1870). 1871, 1, 30.

1871-1880

The Address in Surgery [Antiseptic Treatment of Wounds] delivered on 10 August 1871 to the thirty-ninth Annual Meeting of the British Medical Association held in Plymouth. 1871, 2, 225.

An Address on the Effect of the Antiseptic Treatment upon the General Salubrity of Surgical Hospitals, being the Address delivered in opening the Surgical Section of the British Medical Association at Edinburgh, 4 August 1875. 1875, 2, 769.

An Address on the Influence of Position upon local Circulation. Read before the Harveian Society of London, [with] "some considerations on which I did not enter at the time of delivery, and also some facts subsequently ascertained." 1879, 1, 923.

Discussion on the Treatment of Wounds, Surgery section, British Medical Association, Cambridge, August 1880. 1880, 2, 340-2, and 344.

On the Relation of Micro-organisms to Disease. An Address delivered before the Pathological section of the British Medical Association at Cambridge, 12 August. 1880, 2, 363.

1881-1890

President's Address [on the Catgut ligature]. Clinical Society, 28 January 1881. 1881, 1, 183, with a letter from Lister printed at page 219.

An Address on the Treatment of Fracture of the Patella, delivered at the Medical Society of London, 29 October 1883. 1883, 2, 855.

An Address on Corrosive Sublimate as a Surgical Dressing, delivered at the Medical Society of London, 20 October 1884. 1884, 2, 803.

An Address on a New Antiseptic Dressing [the "so-called double salt," cyanide of zinc and mercury] delivered before the Medical Society of London, 4 November 1889. 1889, 2, 1025.

Two cases of long-standing Dislocation of both Shoulders treated by Operation, with further observations on the Cyanide of Zinc and Mercury. Read before the Hunterian Society on 27 November, 1889. 1890, 1, 1.

An Address on the present position of Antiseptic Surgery delivered before the International Medical Congress at Berlin, August 1890. 1890, 2, 377.

Lecture on Koch's Treatment of Tuberculosis, delivered at King's College Hospital, 3 December 1890. 1890, 2, 1372.

1891-1900

On the Coagulation of the Blood in its practical Aspects. The Annual Oration to the Medical Society of London delivered 4 May 1891. 1891, 1, 1057.

An Address on the Antiseptic Management of Wounds, delivered at King's College Hospital in the London Postgraduate Course, 18 January 1893. 1893, 1, 161.

Address by the President [on the Interdependence of Science and the Healing Art], British Association for the Advancement of Science, Liverpool, 16 September 1896. 1896, 2, 733.

An Address on the Value of Pathological Research delivered on 20 January 1897 in connexion with the opening of the New Physiological and Pathological Laboratories in Queen's College, Belfast, during the celebration of the Jubilee of the College. 1897, 1, 317, with a note dated 1 February on Yersin's work on plague.

House of Lords. Speech on the Vaccination Bill, Thursday, 4 August 1898. 1898, 2, 429.

Lord Lister's Address. Opening of the Thompson-Yates Laboratories of Liverpool University College, 8 October 1898. 1898, 2, 1190-1.

On early Researches leading up to the Antiseptic System of Surgery. Third Huxley Lecture delivered before the Medical School of Charing Cross Hospital, 2 October 1900. 1900, 2, 969.

On recent Researches with regard to the Parasitology of Malaria. 1900, 2, 1625.

1901-1909

Note [on the double cyanide of mercury and zinc as an antiseptic dressing]. 1907, 2, 795.

Note on the Preparation of Catgut for Surgical Purposes. 1908, 1, 125-6.

Remarks on the Treatment of Fractures of the Patella of long standing. [A private letter of 15 September 1895.] 1908, 1, 849.

Remarks on some Points in the History of Antiseptic Surgery, "unfinished Letter to Sir Hector Cameron written early in 1906 before his Lectures [No. 110], but never sent to him." 1908, 1, 1557-8.

On sulpho-chromic Catgut [Letter dated 14 January 1909]. 1909, 1, 245.