Historical perspectives of The American Association for Thoracic Surgery: Robert M. Janes, MD (1894-1966)

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Disclosures: Authors have nothing to disclose with regard to commercial support.

Received for publication May 8, 2016; accepted for publication May 9, 2016.

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J Thorac Cardiovasc Surg 2016;152:299-301

0022-5223/\$36.00

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<http://dx.doi.org/10.1016/j.jtcvs.2016.05.016>

Dr Robert M. Janes was born in 1894 into a family with 3 uncles and 2 cousins who were doctors, and perhaps it was no surprise that his interest in medicine began at an early age. On completing secondary school in Watford, Ontario, Dr Janes entered medical school at the University of Toronto in 1911. Before he was able to complete his final year, the Great War had started and he enlisted as a private in the infantry division of the Canadian Expeditionary Force. However, there were not enough medical officers to meet the needs of the army, and Dr Janes returned to the university to complete his training. During his final year of medical school, he was elected as the president of the Alpha Omega Alpha Honor Medical Fraternity.

On graduating medical school in 1916, Dr Janes reenlisted in the Royal Canadian Army Medical Corps and served in England and France until 1919. Unlike other well-known thoracic surgeons who conducted trauma surgery on the battlefield, he worked primarily in hospital laboratories and gained expertise in bacteriology and pathology. Dr Janes' experience there would later play a key role in his clinical practice, especially at a time when infections often led to serious postoperative complications.¹

Before returning to the Toronto General Hospital as a resident surgeon in 1921, Dr Janes completed his postgraduate training at the Hospital for Sick Children in Toronto (1920-1921) and St Bartholomew's Hospital in London (1921). At the time, the residency system had been newly adopted by only a small number of services, such as the Divisions of Medicine and Obstetrics and Gynecology, but no such positions existed for surgery. Of note, Dr Janes became the first to fill this role for the Division of Surgery at the Toronto General Hospital (Figure 1).

Dr Janes began his surgical practice when Professor C. L. Starr appointed him as a junior surgeon on Dr Shenstone's service in 1922. While working with Dr Shenstone, Dr Janes' interest in thoracic surgery began with his exposure to pulmonary resection for the treatment of chronic pulmonary infections.² At the time, frequent postoperative infections leading to fistulae and hemorrhage

The Janes Surgical Society.

Central Message

Dr Robert M. Janes was the American Association for Thoracic Surgery's 32nd president (1952-1953).

required improvements in surgical technique, and Dr Janes should be noted for pioneering the development of the lung tourniquet, which revolutionized the technique of pulmonary resection. According to his wife, Dr Janes sat down at home one evening and came up with the prototype for the tourniquet out of wood with cords and eye holes, which he sent to the J. F. Hartz Supply Company of Toronto the following day.² A working model out of metal was soon manufactured by the company, and it was first used on a patient in May 1929. Numerous modifications on the design of the tourniquet were subsequently made, but the original design was a result of Dr Janes' original inspiration. Although Dr Shenstone did not have an active involvement in the creation of the tourniquet, Dr Janes repeatedly emphasized the importance of the "team." Because they had jointly implemented the device in the operating room, the tourniquet became known as the "Shenstone-Janes lung tourniquet."³

Dr Janes truly believed that basic general surgery training was mandatory for thoracic surgery. When cardiac surgery became a separate discipline at the Toronto General Hospital, it was Dr Janes' decision that thoracic surgery would remain with general surgery. His opinion was that thoracic surgery was a more closely related extension of general surgery after the induction of anesthesia and exposure of the chest, whereas specialized equipment and the techniques of cardiac surgery would be best managed as a separate entity. Another rising concern in his mind was that thoracic surgical patients would become a secondary concern, shadowed by the glamour of the newly developing field of cardiac surgery. He envisaged surgeons

FIGURE 1. Robert M. Janes, MD (1894-1966), Chairman, Department of Surgery, University of Toronto (1947-1957).

operating on thoracic surgery cases only after the more demanding cardiac surgery procedures were performed, and Dr Janes feared the lack of meticulous attention to detail in thoracic surgical procedures in such situations. With time, especially in hospitals where cardiac and thoracic surgery operated as a combined unit, Dr Janes' foresight became validated, and perhaps it is due to his wisdom that the hospital's division of thoracic surgery can guarantee high-quality operations for its patients to this day.

Although a thoracic surgeon by practice, Dr Janes' mastery of technique in general surgery was beyond exceptional. This was true to an extent that Dr Norman C. Delarue would recall Dr Janes as "the best technician he has ever seen at work."¹ Dr Janes frequently quoted that "no good surgeon uses his fingers when he could have used scissors and no good surgeon uses scissors when he could have used a knife."¹ As it turned out, Dr Janes almost exclusively used knives even for deep surgical targets with negligible blood loss.

Dr Janes' contribution to the establishment of modern-day multidisciplinary rounds can be attributed to his interest

in breast cancer, specifically with regard to recognizing preoperative radiation as an invaluable asset to the surgical treatment of locally advanced disease.⁴ He realized the importance of having complete resolution of radiation-induced inflammation in tissue before surgery and stressed that if the tissues were sutured without tension, healing would not be impaired and venous thrombosis could be avoided, thereby preventing progressive postoperative tissue loss. It was during this time that Dr Janes collaborated closely with Dr Gordon Richards, one of the pioneers of radiotherapy, and when Dr Richards proposed the principles of multidisciplinary oncology clinics, it was readily adopted by senior surgeons at the Toronto General Hospital in the 1930s.

As a consequence of the beneficial experiences during the multidisciplinary approach at the breast clinic, Dr Janes established the chest rounds at the Toronto General Hospital along with the Departments of Medicine and Diagnostic Radiology, which were the first combined medical-surgical rounds at the hospital. Soon after, other specialties began adopting similar approaches in the years to come. The format of the rounds underwent numerous revisions in accordance with the changes in the practice of medicine, but the establishment of multidisciplinary rounds as a routine policy at the Toronto General Hospital exemplifies Dr Janes' incredible foresight to ensuring optimal patient care.

After succeeding Dr W. E. Gallie as the head of the Department of Surgery at the University of Toronto and surgeon-in-chief at the Toronto General Hospital in 1947, Dr Janes assumed leadership roles in many different organizations. These included chairmanship of the Medical Advisory Board at the Toronto General Hospital, membership on the Hospital Board of Trustees, a founding member of the American Board of Thoracic Surgery, and a founder of the *Canadian Journal of Surgery*, for which he was chairman of the editorial board for the first 7 years. In recognition of his endeavors, Dr Janes celebrated the presidency of the Royal College of Physicians and Surgeons of Canada. He also became the 32nd president of the American Association for Thoracic Surgery (1952-1953). Other recognitions include honorary fellowship with the Royal College of Surgeons of England; honorary member of the Royal Society of Medicine, the Los Angeles Surgical Society, the British Columbia Surgical Society, and the British Association for Thoracic Surgery; and regent of the American College of Surgeons.²

Even after his retirement in 1957, Dr Janes maintained an active role in medicine. He became a Sims Commonwealth Traveling Professor of Surgery for the Royal College of Surgeons of England, visiting other Commonwealth countries as an outstanding professor of medicine and surgery. Dr Janes also visited various medical schools throughout the West Indies and in Africa, as well as serving

FIGURE 2. Emblem of the Janes Surgical Society: The Shenstone–Janes Lung tourniquet.

as chief consultant in surgery at the Humber Memorial Hospital.

Despite his numerous achievements, far too many to list here, perhaps Dr Janes' greatest legacy was the Janes Surgical Society, a group formed by young surgeons who were fortunate to receive training under his mentorship. The Janes Surgical Society held annual meetings in the presence of Dr and Mrs Janes with the Janes lung tourniquet as their official emblem (Figure 2). Because of his international reputation and many friendships, the society was able to hold meetings in many locations throughout

the world. A review of the Society's minutes also belay a sense of practicality as one scientific session was adjourned due to the "insufferable heat." A motion was promptly passed to avoid the annual meeting in "tropical climates." It so happened that the group's tenth anniversary coincided with Dr Janes' 70th birthday and the group celebrated the occasion with meetings in Glasgow, Edinburgh, and London. The final tribute to this incredible doctor and surgeon was by Dr R. J. Delaney on behalf of the Janes Surgical Society, which was published in the *Canadian Journal of Surgery* in 1969.⁵ In Dr Delaney's words, "Dr Janes' accomplishments were formidable, but he was not. He was a gentle man, devoted to the welfare of his patients, absolutely unselfish, loyal to his ideals. To each member of the Janes Surgical Society he was a friend, a revered teacher, a brilliant surgeon, and a fine gentleman." Each member of the Janes Surgical Society subsequently strived to these ideals.

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