HISTORY OF CANADIAN SURGERY

GEORGE ALEXANDER KENNEDY, M.D.
1858 - 1913

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"Contemplations of a cloistered sheltered life, Scoring calm sequence of the pulsed days, Weary of science convention's petty strife, They spurred the tedium of the trodden ways; Eager to blaze new trails through lands unknown, To trace new trails across the foaming sea, Eager to sow where others had not sown, Eager to challenge unknown Destiny!"*  

GEORGE ALEXANDER KENNEDY (also named Allan rather than Alexander), M.D., Assistant-Surgeon, North-West Mounted Police, has the distinction of being the first surgeon to perform a major operation in what was then called the North-West Territories of Canada, and which extended from the Manitoba boundary on the east to the Rocky Mountains on the west, and from the 49th parallel of latitude to the North Pole. This mid-thigh amputation was performed successfully at Fort Walsh, in the Cypress Hills, Saskatchewan, in November of 1879. The operation will be described later in this article.

BIOGRAPHICAL NOTES ON SASKATCHEWAN'S FIRST SURGEON

Dr. George Alexander Kennedy was born at Dundas, Ontario, on April 16, 1858, of Scots parentage. While at home and attending school, he was saturated with the Scottish Presbyterian way of life—the teaching of the Bible, especially the Ten Commandments; and the great traditions of his family tree, dating back several centuries to the gents of Scotland, where the Kennedys, down through the generations, fought and died for their high principles of moral, physical and mental rectitude. He was a top student academically, performed his duties on the farm with pleasure, and also took a deep interest in the natural history of the forests and woods surrounding his home. In work and play, although he was one or two years younger than his playmates, he became the leader in their activities, and it became a by-word among his playmates when in trouble to "let George do it." His great interest in this natural life surrounding him seemed to have been instinctive among the youth of his day. Young Kennedy, with his instinct for the relief of suffering and pain, carried these inclinations into bird and animal life. He was known to catch an injured bird and place it in a cage until it was able to fly again. It was almost an everyday occurrence for him to set the broken limb of a dog or rabbit or fox.

When he matriculated at the head of his class at the age of 15 and was ready for

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*From Northland Trails, by S. C. Ells, Victoria, B.C., with the kind permission of Mr. Ells and the publishers, Burns & MacEachern, Toronto.
had a congenital cataract and during his student days he had made a study of this condition. He was a careful reader of the leading English, French, German and Austrian medical and surgical writers of the day. In his final examination on clinical surgery, when he was asked to give his opinion as to the cause of the infection in the stump of a thigh which was exuding copious amounts of "laudable" pus, he stated without hesitation that doubtless the methods of Lister had not been followed in this particular case.

Until Dr. Kennedy became of age he interned in the General Hospital at Hamilton, Ontario, for six months, and when the Dean of Medicine at the University of Toronto was requested to nominate an assistant surgeon for the North-West Mounted Police, who would measure up to all their high standards and requirements, Kennedy was selected. It was in this way that, by Order-in-Council Number 38, he was appointed as the fourth surgeon to the North-West Mounted Police, as from October 1, 1878. He equipped himself and travelled by train and boat to Fort Benton, Montana, and then across country to Fort Walsh and Fort Macleod.

In the fall of 1876, he attended a meeting of medical men at which Lister was present and spoke. There was a great deal of discussion for and against the Listerian method of treatment of surgical cases and opinion was far from unanimous. Some professors of surgery preferred to carry on as they had been doing, without risking the new Listerian method. Kennedy, however, was very much impressed with Lister's method of antisepsis, and when he began his practice at Fort Walsh and Fort Macleod, he practised this method. It is interesting to remember that for eight years after his graduation, he lived practically isolated from his medical fellows, and journals were not so numerous as they are today. Those were the days when surgery was groping in all directions, stimulated by inquiring, progressive minds.

THE PATIENTS

The patients for this clinic were drawn from all parts of the North-West Territories, as well as from Montana and North Dakota, south of the international border. They consisted of:

1. North-West Mounted Police officers and men, numbering 300, who had trekked across the plains five years previously, under Commissioner Colonel French and his assistant, Colonel MacLeod. It was paradoxical that the chief surgeon, Dr. Kittson, aged 35, should be the first patient, and that he was attended by a 22-year-old assistant surgeon, Dr. Kennedy.

So healthy, however, were the North-West Mounted Police officers and men and so carefully were they selected after medical examination, that only a very small percentage required medical and surgical treatment. Medical cases were listed as treatment. Medical cases were listed as treatment. Medical cases were listed as rheumatism, neuralgia, cephalaria, lumbago, bronchitis, pneumonia, diarrhoea, typhoid fever and mountain fever, while surgical cases were largely contusions, wounds, dislocations, fractures, sprains, hemmorhoids, and appendicitis. If a recruit...
developed a hernia, he was immediately invalided out of the Force. The great majority of those invalided subsequently took up farming and ranching, and became the earliest and best-known farmers and ranchers on the western plains.

2. Indians and half-breeds, numbering about 50,000, then scattered in various tribes all over the western plains. Also included amongst these Indians was the great Sioux band, numbering about 5000, under Sitting Bull, who had escaped from United States territory after the Custer massacre, and were then located at Wood Mountain, 100 miles or more east of the Cypress Hills.

In his annual report dated December 31, 1879, Dr. Kennedy reported the following surgical case:

"On the 24th October, 1879, hearing that there were two Blackfoot Indians at the Lake who had been shot by the Sioux and brought in by some half-breeds, I proceeded there to investigate and, if necessary, furnish surgical aid. I found that these two Indians, a man and a boy, were the remnants of a party who had been fired on by the Sioux just south of the line on or about the 3rd of September. The party had included a woman also, but she had died in consequence of her wounds, exposure and privation. The man had received a ball in the calf of the leg, but as no bones had been broken, and he was doing well, I did not interfere with him. The boy, however, had been shot twice, once in each leg. In one leg, the ball had entered above the knee, passed down alongside of the joint and emerged some three inches below, inflicting in its course communicated frattures of the tibia and fibula. His wounds I considered so serious that I brought him to the Fort with me next day. On the 26th, I placed him in quarters for him in the village... On the 27th I administered chloroform to the patient and made a careful examination of his injuries. I found that his knee joint was diseased, and that all the tissues had been so badly shattered that amputation through the thigh would be necessary. I accordingly performed the operation at once. I am happy to say that recovery was rapid and complete, and that he is now able to move about."

Dr. Kennedy’s second operation was performed on a youthful Indian, who for several years had suffered from discharging tuberculous glands of the neck, and Kennedy describes it as follows:

"At eight p.m. on the night of November 10, 1879, in thirty below zero weather, I was called to 'Head of the Mountain', ten miles west, to attend a young man who had fallen in the snow, and was suffering from second degree frost bite, and who, from shock and exposure, was almost dead. However, I lifted the almost lifeless body into my cutter, covered him with blankets and surrounded him with three charcoal burners, and rushed him to our hospital. He was quickly revived by our supportive treatment, and after three weeks' time, when the discharging glands were not improving, I decided to operate on him for the removal of the tuberculous glands on the left side of his neck. He made a good recovery, and was discharged from the hospital to his home. I requested him to come to our hospital for examination every two or three weeks. After a few months, the calls at the hospital ceased, and I presumed that he may have passed away. However, six years later, when stationed at Fort Macleod, I saw him competing in a long-distance race, and he looked hale and hearty, and in apparently excellent health. He was recognized as one of the best long-distance runners in the North-West Territories."

The Commissioner of the North-West Mounted Police, Colonel A. G. Irvine, in his annual report dated December 29, 1880, makes the following remarks, after a special visit to the North-West Mounted Police Fort at Wood Mountain, in November of 1879:

"On the 18th of November, 1879, I left Fort Walsh for Wood Mountain, accompanied by Inspector Cotton, the Acting Adjutant of the force, and Surgeon Kennedy. We reached there on the 23rd of November. While there, I had several long interviews with 'Sitting Bull' and other chiefs of the American refugee Sioux, and Doctor Kennedy examined and treated many of the Sioux Indians, four of whom were to report to him for hospital treatment at Fort Walsh, namely amputation of feet for gangrene following gun-shot wounds, or frost bite."

These operations were successfully performed at Fort Walsh a few days later by Dr. Kennedy, who in his report states that he used the Pirgoff and Syme methods of amputation.

"I received an idea of the cruelty to which these Sioux were subjected at the hands of their lords and masters, and the poet Pope must have had similar opinions in mind when he wrote the lines many decades before, in England:

'Fixed like a plant to his peculiar spot, To draw nutrition, propagate, and rot.'"

3. The third class of patients with whom Dr. Kennedy had to deal were many of the construction workers for the new railroad, the Great Northern, located at Fort Benton, Helena, Silver City, and Bis- mark.

4. White settlers and ranchers from the foothills of the mountains, and the central plains of the North-West Territories.

5. Missionaries of the various religious denominations, of whom there were only ten or twelve, as well as members of the Hudson’s Bay Co. and other trading companies, carrying on legitimate business with the Indians.

At a meeting of the Calgary Medical Association in 1926, Dr. F. H. Mewburn, the Professor of Surgery at the University of Alberta Medical School, had this to say about Dr. Kennedy:

"Doctor Kennedy’s mission was, of course, that of a doctor, and it was the manner in which he entered into and carried out his professional work that brought him recognition as a skilful and trusted surgeon. Wonderfully observant, working out his cases well, and careful in details, we gathered the best he had had his patients, with great judgment and sympathy, and was accorded the respect and confidence of the whole country. The extent of country over which he travelled was enormous. Roads were trails, habitations few and far between, treacherous rivers had to be forded, and at certain seasons of the year, especially in the foothills of the mountains, storms were apt to arise, as they do now, and trap the traveller. Horses and buckboards were the means of transportation. In the matter of professional assistance, he was alone for years. Yet he was able to continue this arduous practice and still have time to read and think and keep abreast of the times. He had a well-organized mind, as is shown by the papers from which quotations have been made, and by his reports while in the Police, and by his work which he had discussed and reported."

Dr. Mewburn should know, because he practised for nearly thirty years at Lethbridge, near Fort Walsh and Fort Macleod, and hardly a week passed when he and Kennedy did not operate together at one town or the other.

Kennedy remained with the North-West Mounted Police from 1878 until the summer of 1889, during which time his professional duties were divided between Fort Walsh, Fort Macleod, and Fort Calgary. The decision to resign was made because he wished to enter private practice at Fort Macleod, which was then the centre of a flourishing ranching country, and it was also more convenient for him in his new duties as medical officer and surgeon to the construction gangs of the Crow’s Nest Pass Railroad of the C.P.R., which position he held until 1913, when he was succeeded by his son, Dr. Allan Kennedy. By this time, his name was known far and wide, not only for his professional ability, but also for the great administrative capacity which he had shown with the North-West Mounted Police in his hospital duties.

In 1889, the Canadian Medical Association held a large and successful meeting at Banff. There were a number of distinguished men from the United States as visitors, and Montreal and Toronto were especially well represented. Dr. Wheeler of Cincinnati (the alternative man in case Dr. Osler refused the professorship at Johns Hopkins), Dr. Connors, a well-known bone and joint surgeon, Dr. Macey of Boston, and others were among the visitors present at this meeting. It was then that Dr. Kennedy read a paper on "The Climate of Alberta and Its Relation to Certain Diseases, principally Pulmonary", and also touched upon the fevers of the country. The paper showed Kennedy’s trend of thought, his lucid and clear expositions, his knowledge of the subject, and his general knowledge of men and his high ideals. It produced a profound sensation. Such a paper, scientifically recorded by a comparatively young man living in a comparatively unknown part of the N.W.T., was unexpected and took them by storm. At that
time overtures were made to Kennedy to return east and practise in Montreal and Toronto, but he refused. He had the call of the west and he was faithful to that. At the end of the paper, Kennedy’s Canadianism came to the fore. He asked why Canadian physicians should refer their patients to Colorado, when they had a climate equally good within the confines of their own Dominion.

It was after this C.M.A. meeting and behind the scenes, in round-table discussions, that his ability as a surgeon was really brought to the notice of the visiting doctors. Some of his cases left a lasting impression on his listeners. One case was that of a bullet wound of the chest: the bullet had entered above the second rib, and had torn its way out at the angle of the scapula on the other side. How the great vessels escaped was miraculous. During the progress of the case, many surgical complications developed, but they were successfully met and the patient eventually made an excellent convalescence.

Another case was a compound fracture of the tibia, with the loss of about two inches of bone. Kennedy followed the practice of the celebrated French bone surgeon, Ollier of Marseilles. The wound and soft tissues were well cleaned. The bone of the leg of a dog, killed for the purpose, was cut in small pieces and the gap filled in, and a carbolic dressing applied. The case did badly. Later it was found that this had been the experience of Phelps, of New York, a well-known bone surgeon, who had performed a similar operation a few months previously, but of which Kennedy was unaware. In spite of this, the man afterwards had a very useful, strong leg. The fibula was shortened two inches, which allowed the ends of the tibia to be approximated and fixed by an ordinary wire nail.

Kennedy was the chief organizer of the North-West Territories Medical Association in 1889, and was its first president in 1889, 1890, and 1891. He was at one time Vice-President of the Canadian Medical Association. From 1897 until 1905, he filled the post of Inspector of Hospitals, including mental institutions, for the North-West Territories. He was President of the College of Physicians and Surgeons of the North-West Territories from 1902 until 1907. In 1908 he was appointed to the Senate of the University of Alberta, and in 1913 he was elected to the General Medical Council of Canada, shortly before he passed away.

After the provinces of Alberta and Saskatchewan were formed in 1905, Kennedy was elected the second president of the College of Physicians and Surgeons of Alberta in 1907 and 1909, succeeding the well-known Dr. R. B. Brett of Banff, who was later to become Lieutenant-Governor of the province of Alberta. The fact that Kennedy, a surgeon and general practitioner at Fort Macleod, held these high positions in organized medicine for nearly twenty years indicates the great respect and admiration in which he was held by the profession throughout the North-West Territories.

He was one of four western medical men who toured the west in the first years of this century, especially British Columbia, working toward the establishment of a Dominion-wide Canadian Medical Association, with primary emphasis on the organization of a Western Medical Federation. The four were Drs. Brett and Kennedy of Alberta, and Milroy and Patterson of Winnipeg. As a result of their efforts the Dominion Medical Council was formed.

For many years he was chairman of the committee on public health and preventive medicine, appointed on a salary basis by the Council of the N.W.T. This committee really spearheaded the medical health acts directed toward preventive medicine as we know it today. It made recommendations which eliminated the unsanitary conditions existing around the villages, towns and N.W.M.P. barracks of that time, and eventually led to the establishment of the headquarters of the North-West Mounted Police at Regina, in 1882.

**Postgraduate Work**

Almost every year Dr. Kennedy visited the leading surgical clinics of North America—McGill, Toronto, Boston, New York, Philadelphia, and Chicago. In the United States, he was a great admirer of James Marion Sims, T. A. Emmett of Virginia, a famous and outstanding gynaecologist of the time, Howard A. Kelly and W. S. Halsted of Baltimore, and also John B. Murphy, of Chicago. Chicago was more convenient to him, because in the late 1880’s and in the 190’s, the Great Northern Railroad was completed, and he could travel quite easily to Chicago. He was a great reader of the medical and surgical journals, and with Dr. Newburn performed with considerable success many of the Murphy operations, including various methods of anastomosis of the gastrointestinal tract with the Murphy button. He also used cocaine and its derivatives as a local anesthetic.

**Kennedy’s Life at Fort Macleod**

Kennedy took up permanent residence with the North-West Mounted Police in Fort Macleod, N.W.T. (now in Alberta), in 1882, as well as carrying on general practice, of which surgery was a very considerable part.

He took a very active part in the community life at Fort Macleod, and was one of the early golfers and polo players in Fort Macleod and district. Incidentally he was one of the first candidates initiated into the Alberta Lodge No. 3, A.F. and A.M., and was No. 37 on the register of the Grand Lodge of Manitoba. He was also a leader of the committee which arranged the first Masonic Ball, held on St. John’s night, in 1886.

The following is an extract from a letter recently received from his grand-daughter, Mrs. Grant Stevens, now living in Winnipeg:

“What constantly amazed me at the various times we came in contact with his papers and books was the fantastic amount of reading he did. I have a whole box full of medical books at home in Macleod— all prior to 1900; some of them I expect are quite valuable. His personal library
included histories and classics and all manner of subjects. And I know there was a debating society to which he belonged: [The Macleod Club], really more of a club where papers were written and delivered on a vast variety of subjects. They all spoke so fondly of his goodness to them—it seems to me my grandparents were always making beef tea and gruel for the poor ones! The social life was very gay in those days too—people seemed to flock around like bees to a honey-pot from far and near, and the Kennedys kept 'open house' all year round.

"I do know from my father (Dr. Allan Kennedy) that he was extremely interested in research and surgery, and had planned to go into that field once my father had taken over the practice, after his large amount of postgraduate training (Vanderbilt, Mayo's, etc.). In fact, I think that was the main purpose of his going to England with my grandmother in the fall of 1913. They were forced to stop off in Winnipeg due to grand-father contracting ulcers of the throat (I believe it is called Vincent's disease?). Anyway, that was the end of him—at 55."

Fort Walsh and Fort Macleod and their immediate neighbourhoods were always greatly beloved by Dr. Kennedy. Those undulant uplands covering tens of thousands of acres were sun-warmed and peaceful after law and order had become established by the N.W.M.P. Mountain streams, a flash and rainbow trout tumbled through the foothills, in burned-over sections new-growth pine, spruce and poplar trees spotted the landscape. To the north stood the gothic peaks of the Livingstone and Highwood Ranges, to the south the pavilions of the Lewis Range, to the west the snow-spired main range of the Canadian Rockies. Bear, deer, elk, moose and coyotes still moved through lush grass dotted with blue lupin. In this district, with the devoted attention of his wonderfully kind wife, he enjoyed a happy family life. Many pages could be written of their family spirit. They used to spend their spare hours in reading the great literature of the past. When the doctor fell ill and was inclined to rest for an hour or two, his wife would read to him from the Greek dramatists—Eschylus, Sophocles, Euripides, and Aristophanes. Doubtless they thought that the lawlessness and bold days of the 1870's had some echo of those earlier days, and, to quote from Oedipus the King by Sophocles, considered that their own objective in life might be summarized in these lines:

"Therefore begrudging neither augury, Nor other divination that is thine, O save thyself, thy country, and thy king, Save all from this delusion of blood shed. On thee we rest: This man's highest end, To others' service all his powers to lend."

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**AN ALBERTA PIONEER**

"Dr. MacKay was the pioneer doctor of Alberta. His excellent professional abilities will be greatly appreciated, in as much as they are combined with great professional zeal and much kindness and amiability of character." Such were the words used by Sir James Y. Simpson, discoverer of chloroform anaesthesia, and Professor of Midwifery at the University of Edinburgh, in recommending Dr. William Morrison MacKay, for a position in Scotland in 1861. Three years later Dr. MacKay, as a surgeon to the Company of Gentlemen Adventurers trading into Hudson Bay arrived at York Factory, then staffed by a group of Scotsmen that could be counted on both hands. Later he penetrated the Great Northland and finally became the pioneer doctor of Alberta.

"Few medical men had, previous to the coming of Dr. MacKay, remained long in Western Wilderness. Several brought out by the Earl of Selkirk remained in the Red River Settlement. One spent a few months on Hudson Bay in 1812. This was Dr. Thomas McKeever an 'obstetrician adventurer' from Ireland. His experiences are on record.

"In 1869 when smallpox broke out in the Edmonton District, there was no doctor nearer than Fort Garry, a thousand miles to the East."