

The frozen man of Queens County

Surgical and social outcomes in the 1860s

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r Henry (Harry) Peters graduated in medicine from the University of Edinburgh in 1840 and returned to practise with his father in the Village of Gagetown on New Brunswick's Saint John River. Dr Peters' general practice covered a 50-mile radius from Gagetown and when he died suddenly at age 48, central New Brunswick went into mourning. We also know from the story that is about to unfold that he was a very competent surgeon.

Ellorimo's story

The Frozen Man of Queens County was perhaps Dr Peters' most celebrated case. He referred to the frozen man as Ellorimo—the name I will use in the following text. Ellorimo was found in late December 1859 in a frozen condition on a "brow" of logs near the Cains River in Northumberland County.1 He was taken to Chipman in Queens County, where the overseers of the poor made arrangements for his care. He was described as an insane and indigent foreigner who was frozen for 5 days.

There are 2 theories as to how Ellorimo happened to be in central New Brunswick in late December. Dr Alexander Leighton—a distinguished Harvard and Dalhousie psychiatrist who spent his summers in Digby County, NS, not far from where Ellorimo eventually lived—suggested that Ellorimo probably came from the Adriatic and was mentally defective from birth. When his family could no longer care for him, arrangements were made to send him away (ie, abandon him). He eventually arrived in Saint John, NB, where he made his way up the river and was looked after by or employed in a lumber camp. When the loggers went home for the holidays in December, Ellorimo wandered away from camp, became lost, and nearly froze to death.

In the second theory, it was surmised that Ellorimo was a foreign sailor who came ashore in Newcastle, NB. He then attempted to walk across the country by a well-known but difficult route, especially in winter, to get to Saint John.² In this scenario, Ellorimo's subsequent speech and mental problems could be explained by brain anoxia, resulting from freezing or too-rapid rewarming causing anoxia from cerebral edema.

The Chipman overseers of the poor looked after their unfortunate ward from December 1859 until March of 1861, when they requested that he be taken to Gagetown to see Dr Peters. The 15-month interval is considered a reasonable time for painless dry gangrene to have set

in and for the viable muscles in his lower extremities to have atrophied, resulting in contractures of the stronger flexor muscles. The combination of gangrene and contractures would have made it very difficult for the patient and his caregivers.

Amputation at a glance

The decision to operate on Ellorimo would not have been taken lightly. Amputations in the mid-19th century had a substantial morbidity and mortality rate. Given American Civil War mortality figures for bilateral thigh amputations, Ellorimo had a 60% to 80% chance of dying from his surgery. The mortality rate for single thigh amputations in the Crimean War was 64%, and Confederate surgeons in one series had 37 deaths after 77 primary single thigh amputations.³ A 19th-century surgical textbook states that patients between the ages of 21 and 40 had a mortality rate of 1 in 5 for any amputation and that "double amputations are of grave import and are very fatal."4 The textbook lists postoperative infection as the leading cause of death after amputation, followed by shock, exhaustion, and secondary hemorrhage.4

Dr Peters' preparation for Ellorimo's amputations would have been comparable to these contemporary recommendations:

- · Obtain consent from the patient or [the patient's family and] friends.
- Give the patient a mild aperient or laxative to remove any fecal accumulation.
- Give the patient a protein meal 4 to 5 hours before the surgery. If solids are not tolerated, give the patient a mixture of milk, egg, and brandy. (The surgeon advised that digestion must be complete before surgery, as vomiting is more apt to occur on a full rather than an empty stomach.)
- The area to be amputated must be well washed. If much hair is present, the area must be shaved as well.
- · Place all necessary instruments on 1 tray; place dressings on a second tray.
- Four people should assist the surgeon: 1 to administer the anesthetic; 2 to secure the limb; and 1 to pass the instruments.4

The anesthetic used for Ellorimo's amputation would have been chloroform or ether. Both agents were commonly used in New Brunswick after the discovery of their practical use in surgery, obstetrics, and dentistry (1846-1847). The purpose of the anesthetic was

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to render the patient unconscious with paralysis of the muscles of the trunk and extremities without producing paralysis of the respiratory or circulatory systems, a balance requiring knowledge and experience. In the 1860s, the active agent was most likely dropped slowly on a handkerchief or napkin, in which it would vaporize: "It should be folded as an open cone or held an inch or an inch and a half from the face."4 The patient's response would be carefully observed, and if there were problems the patient's neck was extended in order to provide fresh air.4 The mortality rate using chloroform in the 19th century was 1 in 3000.4

Flap amputation

Dr Peters would have had 2 choices for his procedure, the circular operation and the flap operation. Even with the advent of anesthetics, time was still a very important factor, and a surgeon could amputate a limb with the flap method in the same number of seconds it would take in minutes with the circular method.4

Dr Peters probably would have used the flap operation, an operation that was preferred by Lord Lister (the developer of antiseptic surgery and the leading British surgeon of the day). The flap operation had the added advantage of having "innumerable modifications." The key feature of the operation was to ensure that the flaps of skin and muscle adequately covered the bone to provide a comfortable stump. The long muscles of the thigh retracted when cut; this had to be taken into account and the periosteum (ie, covering of the bone) had to be dissected away and then used to cover the severed end of the bone. The bone (ie, femur) was cut an inch above the highest point of the flaps. Bleeding was controlled by elevating the leg, wrapping it tightly to remove as much venous blood from the leg as possible, then placing a tourniquet above the surgical site to obstruct arterial blood flow. Secondary control of bleeding was accomplished by cauterizing blood vessels using a red-hot piece of metal or tying off the blood vessels with ligatures of carbolized catgut. Care had to be taken to identify the main blood vessels and nerves. A linen retractor was used to hold back the flaps so vital components of the stump would not be damaged while the surgeon sawed the bone; then the end of the bone was trimmed smooth, covered with the periosteum, and closed with the deep muscle layers. The skin would be sealed with an external drain in place so that fluids would not accumulate and compromise healing. Finally, Ellorimo's stumps would be dressed and the nursing care to get him through the hazardous postoperative period would begin.

Ellorimo stayed in Gagetown under Dr Peters' care until May 1861, when he was sufficiently recovered to return to Chipman. Dr Peters' bill to the Parish of Chipman for surgery and postoperative care was £30.15.1 Now the overseers of the poor faced the prospect of caring for a young man who, despite severe mental and physical handicaps, was otherwise healthy and who was not from their parish. In August of 1863, they paid a Maine fisherman to take Ellorimo and leave him on a Bay of Fundy beach in Nova Scotia.1 On his arrival on Sandy Cove beach, Ellorimo was cared for by the English-speaking Protestant community for a very short time. Then he was taken to the French Shore (part of Digby County, including the Acadian and Roman Catholic communities of Meteghan and St Alphonse), where he was cared for first by the Nicola family then the Comeau family until his death in 1912. At the time of his arrival on the French Shore, he was described as being in his early 20s, of dark complexion, and physically strong. His caregivers noted that he remained almost speechless for the rest of his life, occasionally mumbling something that sounded like Jerome, which was understood to be his name. They also stated that at times he had a violent temper and certain words like Il Columbo* and Trieste agitated him.1

Epiloque

For many years the story of Ellorimo (Jerome), the legless man who mysteriously appeared on a beach in Nova Scotia, has been the source of much speculation, inspiring articles, books, a movie, and a play. The work of J. Alphonse Deveau, the Acadian historian, has done much to uncover the actual details of Ellorimo's life; however, some aspects of his story might never be known. Today in Canada, the mortality rate for a bilateral above-knee amputation is less than 5%; given the standard of care in the 1860s, Ellorimo was very fortunate to have had Dr Peters as his surgeon. We know that the Parish of Chipman saved Ellorimo and cared for him during his time of greatest need and that the Acadian community of southwest Nova Scotia cared for him when no one else would.

Ellorimo (Jerome) is buried in an unmarked grave in Meteghan, NS, but if you look at a map of central New Brunswick, on route 116 northeast of Chipman you will find a reference to him—a tiny community called Castaway.

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Competing interests

References

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- 2. Denton L. "Jerome." The man without legs [unpublished article]. Located at: Queens County Museum, Gagetown, NB.
- 3. Cunningham HH. Doctors in gray. The Confederate medical service. Baton Rouge, LA: Louisiana State University Press; 1993. p. 223
- 4. Bryant T. A manual for the practice of surgery. Philadelphia: PA: H.C. Lea's Son and Co; 1885. p. 994-1005.

*Il Columbo is thought to be the ship that brought Ellorimo (Jerome) to North America.

We invite you to submit articles or topic ideas on the history of medicine. Please contact Dr Ian Cameron at ian.cameron@dal.ca for more information.