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Book Review

Ether-Rausch: From Ether to Medical Specialty. Development of Anesthesia, Intensive care, First Aid and Pain Management in Finland Since 1847.

This book presents the history of anesthesia in Finland in a beautiful and readable format and is the best source on this subject. The book is bilingual, pages in Finnish face pages with the same text translated into English; some pages have columns of Finnish text and English text side by side. This wonderful idea (unique in anesthesia history texts as far as I know) greatly expands the audience for the book. The audience will be anyone interested in history, especially anesthesiologists. The book's publication celebrates multiple anniversaries of important events related to anesthesia history in Finland: the founding of the Finnish Society of Anesthesiologists, the beginning of their journal *Finnest*, the formation of three professorships in anesthesiology in Finland, granting of the first specialist license in anesthesiology to Eero Turpeinen in 1948, and the important "round birthdays" of the authors.

The authors are Tapani Tammisto (1932–2017) and his wife Christine (1932–2018). Tapani Tammisto was the first professor of anesthesiology at the University of Helsinki; Christine lectured at the Business School of the University of Helsinki. After their retirements, the couple began to research the history of anesthesia in Finland. Their extensive and careful research over many years led to published articles in *Finnest* from 2006 to 2010. These articles stimulated the idea for this book. The book was edited by anesthesiologist Virve Mäkelä, a close friend of the Tammistos. The attractive layout was done by the Tammistos' granddaughter. The accent colors (light blue, pale orange), the page design, the high-quality paper and photographs, and the use of beautiful drawings of soporific plants taken from a 15th-century herbal book by Lonicus (a reprint belongs to Otto Tammisto, a grandson) make for a visually stunning book. All these personal associations make for a remarkable and most beautiful book.

The book's title, *Ether-Rausch*, translates as *ether-light* and is defined as light general anesthesia only to the point where, if questioned sharply, a patient will not reply. The book is divided into four sections, "From Ether to Medical Specialty," "Resuscitation in Finnish Medical Publications," "From Epidemic Hospital to ICU," and "From Pain Maiden to Pain Clinic." Each section is broken up into smaller aspects of the main subject. For example, the first section, "From Ether to Medical Specialty," includes the introduction of anesthesia, regional anesthesia challenges general anesthesia, opioids, and premedication, from rectal anesthesia to intravenous anesthesia equipment and administration of anesthesia, and solution to the anesthesia question.

An Appendix includes three articles. First is a review of the herbal book. Next, a short chapter describes Tapani Tammisto's relationship to the Finnish engineering company Datex, a relationship which led to the first end-tidal CO₂ monitor. To explain the need to monitor

end-tidal CO₂ and to stimulate the company's interest in making such a product, Tammisto allowed Datex engineers into the operating room. This was unheard of at the time, but it got the engineers interested in this issue. The first useable end-tidal CO₂ analyzer was introduced in 1975 by Datex and became a product used worldwide. Although Datex was bought by GE Healthcare in 2003, its Finnish operations continue as the company's center for research and development and for global marketing. The final section of the Appendix is "Professor Johann Ferdinand Heyfelder 1798–1869." Heyfelder gave the second ether anesthetic in Germany and spent a year in Finland in 1855 as Chief Medical Officer for the Finnish Army during the Crimean War. During that year, he was active in the Finnish Medical Society (FLS). This appendix summarizes his lectures and presentations to FLS in 1855–1856 and is in German. A summary in English follows.

When general anesthesia began, after the successful demonstration in Boston on October 16, 1846, the news of anesthesia spread to major cities around the world within a year. The news usually came in personal letters, and this was the case in Finland. At the time, Finland (then the Duchy of Finland, from 1809 to 1917) belonged to the Russian Empire and so was somewhat politically and culturally isolated from Europe. But a Finnish physician, Carl von Haartman, son of the Director General of the National Board of Medicine, who was studying in Paris observed ether anesthesia there and wrote to his father, who then addressed the Finnish Medical Association (FSL), announcing the news of anesthesia on February 13, 1847.¹ The first known operations under anesthesia were reported in Helsinki's newspaper, *Helsingfors Tidningar*, on March 6, 1847. The operations were on February 16, 1847 (varicose veins) and March 3, 1847 (amputation of an upper extremity). Surprisingly, no mention of anesthesia could be found in records of medical society meetings or other medical literature of that time.

Use of ether during operations appears to have ended abruptly in Finland, to be replaced by chloroform. Chloroform came to Finland by way of Carl von Haartman and his letters once again. During his time in Edinburgh, he observed Sir James Young Simpson's use of chloroform, including for obstetrics. While studying in London later, von Haartman used chloroform at the General Lying-In Hospital for obstetrical patients. On his return to Finland in the summer 1848, he began using chloroform and reported on two operations under anesthesia to the FLS on December 12, 1848. The next year, he wrote an article for the FLS on the use of chloroform, emphasizing obstetrics. Chloroform was the predominant anesthetic in Finland then until the 1880s when its problems, including deaths, became clear. Ether returned, accompanied by efforts to find other anesthetic drugs. Nitrous oxide appeared in the 1880s but was little used except for dentistry.

Finnish physicians were familiar with the anesthetic effect of topical snow and ice and reported on this for operations in the mid-1850s. Next came local anesthesia with a topical drug, cocaine, after

Carl Koller presented cocaine's anesthetic effect on the eye in the end of September 1884 in Heidelberg. This news spread quickly, and cocaine was used in Finland in the end of December 1884 and reported in mid-January 1885. Topical use of drugs then led to infiltration, blocking of nerves, or spinal administration. Local anesthesia by nerve block was the most commonly used in Finland, until Eero Turpeinen (Finland's first anesthesiologist) visited Torsten Gordh in Sweden in 1940. Gordh is considered the first trained anesthesiologist in Scandinavia. He had just returned from his training with Ralph Waters at the University of Wisconsin; this was the first academic anesthesia training program in the world. Gordh was trained in spinal anesthesia and nerve blocks and taught Turpeinen, who then brought these techniques to Finland. (Gordh also went to Finland to help with anesthesia during Finland's Winter War with Russia, November 30, 1939, to March 13, 1940.²)

Subsequent chapters continue a high degree of scholarship and quality writing. This lovely book will be of interest to many interested in the history of anesthesia, including nonanesthesiologists, and the authors and editor are to be congratulated for this fine publication.

(Additional note: After this book was published, the Tammistos found that the news of anesthesia came from St. Petersburg by post to Borgå (a town 60 km east of Helsinki, known as *Porvoo* at the time; it was then the cultural capital) and onto Helsinki. Borgå's newspaper *Borgå Tidning* published the news of ether on February 10, 1847, 3 days earlier than the date of the first operation under anesthesia.)

Selma Harrison Calmes

Clinical Professor of Anesthesiology (Retired)

Department of Anesthesiology and Perioperative Medicine

The University of California at Los Angeles, Los Angeles, CA 90049

References

1. Stromskag KE, Brock-Utne JG, Eklund J, Holmdahl MH. A history of Nordic anesthesia. In: Eger EI, Saidman LJ, Westhorpe RN, eds. *The Wondrous History of Anesthesia*. New York: Springer; 2014:418.
2. Calmes SH. Remembering Dr. Torsten Gordh (1907-2010), father of Swedish anesthesiology. *Bull Anes Hist* 2010 (Oct);28:47-50.