

IMAGINING IN TIME

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Alice Magaw (Kessel): Her Life In and Out of the Operating Room

Alice Magaw (Kessel) was a pioneer in nursing research and the practice of nurse anesthesia through the publication of her clinical findings. This historical review will consolidate and preserve existing information and document new findings pertaining to this outstanding anesthetist. Primary historical sources, newspapers,

legal documents, and other forms of information will be utilized, as well as correspondence with individuals who had some relative association with Magaw.

Keywords: Alice Magaw, nurse anesthesia history, open-drop ether technique, St Mary's Hospital.

Each profession, in its infancy, is fostered by individuals who set the standard for growth and improvement. These persons are typically referred to as pioneers because of their innovative, creative, and landmark ideas and actions. Their contributions set the tone for professional development and advancement. These pioneers are noted for building upon a body of knowledge, establishing a model for

continuous improvement, and exemplifying notable methods of research with subsequent documentation of their findings.

Alice Magaw (Figure 1 and Figure 2) has provided a well-established legacy of nurse anesthesia research. Her internationally recognized clinical techniques and published research have been well documented. Based on historical data, personal correspondence, public information, and institutional records, this column will provide insight into and appreciation of some of the strengths, struggles, concerns, and successes of this remarkable woman.

Background

Magaw was the third child of Thomas and Nancy Magaw and born in Cashohton, Ohio, on November 9, 1860.¹ Her father moved the family to Shiawassee County, Michigan, when Magaw was about 4 years old. The county records reveal that in 1882, Thomas Magaw, a grocer by profession, moved the family to the 5 corners area of Rochester, Minnesota.¹ He



Figure 1. Alice Magaw, date unknown.

(Courtesy of Olmsted County Historical Society.)



Figure 2. Alice Magaw, date unknown.

(Courtesy of Olmsted County Historical Society.)

died 3 years later in 1885.

Emma, Magaw's oldest sibling, was a school teacher who apparently

stayed in Corunna, Michigan, when the family moved west. Laura remained in the Rochester area and apparently never married. John, a younger brother, became a prominent businessman in Rochester and eventually a co-owner in a local grocery store.² Clem settled in Minneapolis,³ and Ella resettled in Corunna and married Frank A. Thompson.⁴ Their mother Nancy died of pneumonia in Corunna in 1899.⁵

Nursing

In 1887, Magaw became friends with Edith Graham (Figure 3). This relationship was strengthened when they attended nursing school together at the Women's Hospital of Chicago.⁶ Mary Thompson, MD, founder of the Women's Hospital of Chicago, opened many doors for the future medical training of women.⁷ It was in this setting that Magaw may have been mentored and encouraged to make a mark in her role as a nurse anesthetist through commitment to details, expert clinical practices, and a pioneering spirit. Magaw and Graham graduated in 1889.⁸

Returning to Rochester after graduation, Magaw worked as a staff nurse at St Mary's Hospital. In 1882, before the marriage of Graham to Charles H. Mayo, MD, Magaw was chosen by brothers Charles Mayo, MD, and William J. Mayo, MD, to assume the role of anesthetist (Figure 4), which up to that time had been performed by Graham.⁹ Magaw was sent back to Chicago by the Mayo brothers for additional training in the use of a microscope in order to assist in the preparation and examination of pathological specimens.⁹ Shortly after Magaw's training, the clinic obtained a new Leitz microscope for ongoing pathological studies.¹⁰ Another venue in which she found herself employed until 1901 was assisting the Mayo brothers in the clinic offices.⁹ Being an extremely capable woman, it was not surprising that the Mayo broth-



Figure 3. Edith Graham, date unknown.

(Courtesy of AANA Archives.)

ers entrusted her with so much responsibility.

By 1899 in her primary role as anesthetist, Magaw had documented sound anesthesia principles and practices that remain true today. It is remarkable to note that her astute observational and clinical practice skills remain the hallmark principles of safe anesthesia practice. Some of her observations included talking to the patient throughout the induction process, attentive titration of anesthetics, airway management skills, and vigilant patient response monitoring. At the same time, she remained unflinchingly aware of the progression of the surgical procedure to anticipate the needs of the surgeon. Other guiding principles under which she worked and shared with others are, "the great secret of giving an anesthetic of any kind is to not feel hurried," "the surgeon should not hurry the anesthetist,"¹¹ and "the surgeon's time may be precious but the patient's life is more so."¹²

Because of Magaw's demonstrated successes, she was invited to share her knowledge with the Olmsted County Medical Society on May 2, 1899. *The Northwestern Lancet* published her lecture as "Observations in Anesthesia."¹¹ Helen Clapesattle noted that "since she [Magaw] could not be a member of any medical society, she gave her first talk by

invitation before the Olmsted County group and they were then accepted for publication in the state medical journals."^{13(p430)}

In 1900, Magaw published in the *Saint Paul Medical Journal*, a paper she titled "Observations on 1092 cases of anesthesia from Jan. 1, 1899 to Jan. 1, 1900."¹² The following year, Magaw used her knowledge and expertise to document her clinical trials regarding the administration of nitrous oxide gas and ether.¹⁴ In 1904 she was invited to address the Minnesota Medical Association. She presented "Observations Drawn From an Experience of 11,000 Anesthetics," published in the *Transactions of the Minnesota State Medical Association*.¹⁵ Her fifth and final publication, "A Review of Fourteen Thousand Surgical Anesthetics," was published in *Surgery, Gynecology and Obstetrics* in 1906.¹⁶

Although Magaw's distinguished journalistic accomplishments are well preserved, documentation of her involvement in hands-on, clinical training has not been discovered. Some reference to this can be drawn from correspondence with physicians with whom she had a professional relationship.

Referring to decreased anesthetic-related mortality in his state, an Iowa physician shared this viewpoint: "Many of us have had the pleasure of seeing that peerless anesthetist, Alice Magaw...talk her patients to sleep." The things that she is teaching about the administration of anesthetics, he added, "are practiced by the men throughout Iowa and many other states."^{13(p427)} Magaw was convinced that the product of suggestion to the surgical patient was "a great aid in producing a comfortable narcosis."¹⁶

Virginia Thatcher writes:

Early in its history, St. Mary's Hospital became a gathering place for surgeons who went there for the purpose of observing operations performed with the outstanding skill of Mayo surgeons. And while they saw impressive surgical work, they saw



Figure 4. Alice Magaw Administering Anesthesia at St Mary's Hospital, date unknown.

(Courtesy of AANA Archives.)

something else that provided a subject for thought and conversation when they got home: anesthesia, beautifully conducted by a method that satisfied the demands of the surgeons while providing the ultimate in comfort and safety for the patient. This was Magaw's technique of open-drop chloroform and ether.¹⁷

A surgeon from Germany told his colleagues that "anesthetists from all parts of the United States were going to Rochester to learn their craft from the Mayo's expert nurses."¹⁸ Clapesattle states with reference to the Mayo Clinic, "It became a Mecca for surgeons, and its nurse anesthetist, Alice Magaw, provided such leadership in that new field that her work drew more widespread attention than that of any other member of the Rochester group apart from the Mayo brothers themselves."^{13(p431)}

When reporting on the circumference of her influence, it was noted in an Iowa newspaper "her remarkable work...has won recognition from medical authorities all over the world."¹⁹ Articles in the local Rochester newspaper refer to her notoriety with "Mrs. [Alice] Kessel, whose acquaintances can be said to be worldwide, has been in

Rochester for fifteen years and has many friends."²⁰

Magaw set a remarkable standard for safe, research-based anesthesia delivery. Her publications embodied practice principles that other anesthesia providers would reference in their desires to become more proficient in their own practices. "What Miss Magaw did not realize was that her excellent record, as documented by her articles, would earn her a measure of immortality."²¹

By the 1930s nurses were employed as anesthesia providers in many practice settings across the country. Magaw's documentation was used as indispensable evidence to validate the decision by the court in a landmark civil case that challenged the nursing scope of practice with regard to administration of anesthetics. "The court assessed that the knowledge of administering anesthetics was not exclusively within the province of medicine; that when a nurse administered anesthesia, she was practicing nursing."²¹

Although Magaw's work was essential to the surgeons at the Mayo Clinic, she still had occasion to travel. She remained in close con-

tact with her family, spending time with them as often as possible. She traveled to Europe and visited various areas of the Midwest in both personal and professional capacities. Magaw also accompanied the Mayo brothers to various professional medical meetings.²²

Through her association with the Mayo brothers, Magaw met Dr George Kessel, a prominent surgeon from Cresco, Iowa. He was a widower with 4 daughters and knew the Drs Mayo on a personal and professional level. After a period of courtship, Kessel and Magaw were married at the home of Dr William J. Mayo, the best man, on May 23, 1908. Attesting to her standing as a woman in the early 1900s, the local newspaper described their marriage as a union of "two professional people" (emphasis added).¹⁹ A simple, yet beautiful wedding is described in the local paper that noted that their honeymoon would last 3 months as they toured Europe. The newlyweds visited several hospitals throughout Germany and Austria and sent descriptions of their discoveries and travels to the hometown newspaper.²³

Upon their return to Cresco, Kessel and Magaw quickly became involved in the medical practice. Magaw began providing anesthesia in the old Kessel Hospital and continued to do so in the new St Joseph's Mercy Hospital.²⁴ The local town paper reported that on occasion the Mayo brothers worked at the Cresco hospitals alongside Kessel.²⁵ This was possible partly because of the relatively short distance to Cresco from Rochester. Because Magaw provided the anesthesia, she was able to maintain a professional relationship with these renowned Mayo Clinic surgeons. As best as can be deduced, the newly married couple appears to have been able to work well together.

At the time of her marriage, Magaw was almost 48 years old and had left her previous life and friends

to settle into this new marriage and role as wife and stepmother. She had become an expert in her field and had grown accustomed to working and achieving a certain measure of respect and notoriety in her professional endeavors. Her marriage to Kessel suddenly included the responsibility of being part of, and stepmother to, a family with 4 daughters. Gertrude, the youngest of the 4, remembered Magaw "as a woman of middle age with no comparable experience and was totally unprepared for our household, especially the four daughters."²⁶

Gertrude described herself as "being disturbed by the discontent and discord I could sense in the house," but also said she was fond of her stepmother and loved her father" (C. Myers, oral communication, February 2, 2000). A granddaughter of Kessel, Joan Nelson, was given the impression from her mother, Martha, that the "girls had a negative feeling toward Alice" (J. Nelson, oral communication, February 24, 2000). The 2 older girls were grown, well educated, and quite independent at the time of the marriage. The younger of the 2 daughters, Gertrude, was still at home when their father wed Magaw. Gertrude was already 10 years old and may have had strong emotions regarding this new woman in their home. Despite the reports of conflict in the home, when traveling, Magaw often sent postcards to the 2 youngest daughters, signing them, "lovingly, Mother" (C. Myers, oral communication, February 2, 2000).

Elva Luehr, a retired school-teacher and close friend of Gertrude, revealed other facts pertaining to the marriage. She stated "Dr Kessel wanted Alice to be a 'kept woman,' a social partner for the entertaining he did," and that "the daughters made it hard for Alice" (E. Luehr, oral communication, January 20, 2000). Kessel had servants to do the chores around the house, but Magaw was one to do the work herself. These

new roles must have lost their appeal after a time. A legal separation was arranged and signed on August 7, 1919.²⁷ This legal resolution to their marriage arranged for disposition of each of their properties and defined a level of financial support that Kessel provided for his wife. They were never divorced, relegating Magaw to the status of "grass widow," as was the label at the time for a woman who had separated from her husband. This is confirmed by early 1920s Rochester telephone directories, which list Magaw as "widow" of Kessel.²⁸

Contextual references are difficult to document with regard to divorce and marital separation in the early 20th century. Divorces, compared to their prevalence today, were unusual. "When unhappy nineteenth-century couples lacked the legal grounds or the financial means or the moral or religious support to seek a divorce, many separated."²⁹ There was "no simple way to quantify how many men and women exercised their right to leave [a marriage] without a legal decree. Unlike divorces, which left a mark in the public records, separations mostly lived in a private and indeterminate world."²⁹

Immediately after the arrangement of the separation, the whereabouts and travels of Magaw cannot be readily deduced. It may be supposed that she traveled back to Michigan, as she did in 1900, where she had family ties.³⁰ If this is the case, she may have been there for several years. In attempting to discover her next documented residence, Rochester telephone books and the 1923 hospital staff listing of the Mayo Clinic were used.^{28,31}

Although she did return to employment at the Mayo Clinic, it appears that she did not regain the same level of professional esteem that she had achieved before her marriage. The number of professional, trained nurses providing anesthesia had increased to 18,

including Mary Hines and Anne Powderly. "At Rochester anesthesia was not much different in 1919 than it had been under Alice Magaw in 1905."^{13(p431)}

Later in her life, Magaw dealt with various taxing health problems including diabetes. It may be that her health was a factor in her relatively short return as a nurse anesthetist at St Mary's Hospital, as 1925 was the last year that she was listed as a staff member.³²

Alice spent her last few weeks of life at a sanitarium in Hudson, Wisconsin. It was a place that could take care of her personal and health-care needs. She was there for 59 days, dying from diabetes.³³ Her obituary was printed in the local Rochester newspaper the day after her death.³⁴ Her final resting place is in the Corunna Cemetery, Michigan, next to her family.

Conclusion

It was Magaw's dedication to excellence and her documentation of her perfection of the early anesthetic techniques that set the standard for current anesthesia providers. We who lay claim to this heritage are greatly indebted to this fine woman, Alice Magaw. She is unequalled in her accomplishments and will be forever revered for her legacy. For someone who was given so little with which to work, she has made a lasting and indelible impression on a profession that is proud to claim her as the "Mother of Anesthesia."¹⁷

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