1914 Anesthesia Outcome Data for Roosevelt Hospital, New York City, NY

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Introduction:
Information about anesthesia practices and outcomes from the early 1900s is limited. A better understanding of this time period may further our understanding of the development of the medical practice of anesthesiology, which may reveal worthwhile lessons.

Methods:
The Medical and Surgical Report of The Roosevelt Hospital, New York, 1915, was evaluated for outcome data. Other annual reports of that time were evaluated for similar information.

Results:
The anesthesia section of the Roosevelt Hospital Annual Report provided partial anesthetic data for the 11-month period of February 1914-December 1914. It was written by Lewis S. Booth, MD, the paid anesthetist for the hospital. Booth was later President of the New York Society of Anesthetists in 1926-27. The Table provides information about techniques and outcomes. The Report indicated there were some variations within each primary technique, such as using nitrous oxide or chloroform with an ether induction, but it did not provide quantitative data.

Anesthetics were provided by 12 men, at least some of whom were clinical clerks (medical trainees) from College of Physicians and Surgeons. Nearly all the anesthetics, except for emergencies, were under the direction of Booth.

A total of 710 anesthetics were performed. For primary anesthetic techniques, intrapharyngeal ether insufflation accounted for almost half the anesthetics, followed in frequency by ether rebreathing with a Bennett Inhaler (closed method), drop ether (used mostly in children), and intratracheal ether insufflation.

For the 10 patients who developed postoperative pneumonia, 3 died on the second day after the diagnosis of pneumonia, 1 died of tuberculosis, 5 made a complete recovery and 1 had clinical signs of pneumonia 3 weeks after discharge.

For the 8 patients who developed acute bronchitis, 2 had previous chronic bronchitis, 1 had acute pharyngitis, 1 may have had tuberculosis, 1 had goitre with copious secretions, and 2 cases could not be explained. The remaining case is hard to interpret from the Report.
Kidney irritation was present postoperatively in 8% of patients, but 2% had a preexisting condition.

The Report indicated that 0.3% (2/710) patients died. One patient, unquestionably the result of the anaesthesia, died from asphyxia during induction of anesthesia because of cellulitis of the neck and slight edema of the larynx. One child died due to a lung abscess.

Poor data exists for comparison. Bellevue Hospital’s report for 1915 noted an Instructor in Anaesthesia, Charles S. Hunt, at the Gouverneur Hospital. Across the four hospitals, mortality rates for patients who had surgery were Bellevue, 4.8%; Gouverneur, 6.5%; Harlem, 4.0%; and Fordham, 4%. For Mount Sinai Hospital, New York City, for December 1914-November 1915, 8% of admitted patients died during admission. There are no specific data about surgical patients. The report for the 1916 data from Johns Hopkins Hospital, Baltimore, MD, noted that on the surgical service, 3.9% of white patients died and 4.9% of colored patients died. Whether these patients had surgery and the causes of death are unclear.

Discussion:
1. Data regarding anesthetic procedures and outcomes were not routinely included in annual reports.
2. For the insufficient technique data available in small, disparate chunks throughout the literature, Roosevelt Hospital seemed to practice advanced anesthesia.
3. For the insufficient outcome data available in small, disparate chunks throughout the literature, Roosevelt Hospital’s outcomes seemed to be better than average. But this information is reported in different formats, making comparison complex.
4. Evaluating these types of data will flesh out the practice of anesthesia during the early part of the 20th century.

References:
1. Medical and Surgical Report of the Roosevelt Hospital, 1915.
2. Annual Report of Mount Sinai Hospital, 1914-16.