

## CORRESPONDENCE

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*In Reply:*—We appreciate the comments offered by Holt and Mark and Brodsky suggesting that positioning and duration of surgery could have contributed to the development of ipsilateral shoulder pain following thoracotomy. We can state that there were no differences in positioning or padding between the patients suffering from ipsilateral shoulder pain and those who did not. Patient positioning was standardized, with all subjects positioned in the lateral decubitus on a bean-bag support mattress. Padded rolls were placed under each patient's axilla, and the upper extremities were supported in the extended position on a foam-padded arm rest, with foam padding placed over the dependent arm to support the upper arm. Lateral thoracic wall incisions were used in every patient.

The issue of the duration of time spent in the lateral decubitus is more difficult to eliminate as a potential link to the development of ipsilateral shoulder pain following thoracotomy. As emphasized by Mark and Brodsky, the more extensive and complex operative procedures will require longer surgical times. Thus, the lobectomy and pneumonectomy procedures generally were associated with longer periods spent in the lateral decubitus, compared to procedures entailing diagnostic biopsies or wedge resections. The mean duration of surgery in patients complaining of postoperative ipsilateral shoulder pain was  $191 \pm 48$  min (range 123–282 min) versus  $148 \pm 76$  min (range 68–350 min) in patients without shoulder pain. The difference in surgical times between patients with and without ipsilateral shoulder pain is not statistically significant. Any trend probably is related to the fact that ipsilateral shoulder pain occurs significantly more often with major lung resections, which require longer operative times. It is also worth noting that the patient with the longest operative procedure, 350 min, did not experience ipsilateral shoulder pain symptoms. Thus, our findings suggest, but do not sup-

port, a relationship between the time a patient spends in the lateral decubitus and the subsequent development of ipsilateral shoulder pain.

Finally, we agree that our findings concerning the association of ipsilateral shoulder pain symptoms with transection of a major bronchus do not establish a causal relationship and never implied otherwise. It was our hope to foster a recognition of this relationship as a foundation for further investigation, to establish the etiology of this aggravating clinical problem, and to establish the inability of epidural fentanyl and local anesthetic to alleviate the shoulder pain symptoms. Investigations into the possible neural origin of the ipsilateral shoulder pain are underway. Our postulates as to the origin of the shoulder pain were not well received by the reviewers, and we await supporting data from ongoing research. However, we do not subscribe to the ligamentous strain theory proposed by Mark and Brodsky. During our early experiences in attempting to control the severe shoulder pain symptoms, high levels of sensory epidural analgesia were obtained, including the entire thorax up to and including the C4 dermatome, with no reduction in the severity of their shoulder pain.

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## Henry Ruth, T. Drysdale Buchanan, and History of Anesthesia

*To the Editor:*—The recent article by Rosenberg and Axelrod gives much insight into the pioneering work of Henry Ruth of Philadelphia.<sup>1</sup> Ruth's contributions to the establishment and furthering of the specialty of anesthesiology during the 1920s and 1930s were enormous.

As the authors note, Ruth worked with Thomas Buchanan and others to establish the American Board of Anesthetists. However, Buchanan's affiliation was not with New York Medical Center–Bellevue Hospital, but rather with New York Medical College.<sup>2</sup>

T. Drysdale Buchanan, born of Scottish parents, graduated from the New York Homeopathic Hospital in 1897. In 1899, he was the first anesthetist elected to the Flower Hospital Staff (he arranged with the surgeon that, if he found cases for the latter, he would be allowed permission to anesthetize them). He was appointed Professor of

Anesthesia at New York Homeopathic College in 1904, and was later appointed as consultant in anesthesia to Metropolitan Hospital.

After a long relationship, the Homeopathic College associated formally with Fifth Avenue Hospital in 1936, and the combined institutions became known as The New York Medical College, Flower and Fifth Avenue Hospitals. The College had maintained a teaching affiliation with Ward's Island Homeopathic Hospital, which became Metropolitan Hospital, since the late 19th century, representing the oldest continuing affiliation in the United States between a private medical school and a public hospital.

As Rosenberg and Axelrod noted, Buchanan was the first president of the American Board of Anesthesiology. He also held Certificate #1 of that Board. Like Ruth, he was a board member of the American

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Society of Anesthetists. Until his death in 1940, he played a key role in the organization of anesthesiology by forming and holding leadership roles in most of the anesthetic societies in the United States and Canada. One of his last achievements was to arrange the exhibition on anesthesia at the New York World's Fair in 1939.

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## Henry Ruth and History: His Rightful Place?

*To the Editor:*—We read with great interest and excitement Rosenberg and Axelrod's article on Henry Ruth.<sup>1</sup> As a leading practitioner in the defining years of our specialty, Ruth can serve as an example of the finest anesthesiology has to offer. He is richly deserving of our admiration, yet unfortunately he has been forgotten by many. Due to our interest in this time period and the specialized nature of our research, we have some unique additional information that will further clarify some of the issues surrounding Ruth's career.

It is a controversial and complex historical question defining when "modern anesthesia practice can be considered to have originated." For example, James Gwathmey had published 57 articles in the leading journals of his day by 1920. His classic 945-page text, *Anesthesia*, was published in 1914.<sup>2</sup> Francis Hoeffler McMechan was out of practice by 1915 because of his severe rheumatoid arthritis. However, he already had published 28 papers and had practiced anesthesia

\* Dearborn FM: Tom Buchanan. Quarterly of Phi Alpha Gamma 37-41, 1940. In the collected papers of Paul Wood, M.D. Park Ridge, The Wood Library-Museum of Anesthesiology Collection.

† "With you we agreed to make no publication until such time as *Anesthesia and Analgesia* should not be published or some other individual is editor." Letter from Paul Wood to Francis Hoeffler McMechan, February 8, 1937. The collected papers of Paul Wood, M.D. Park Ridge, The Wood Library-Museum of Anesthesiology Collection.

‡ Minutes of meeting for 1937-1939 World's Fair Exhibition Committee: The collected papers of Paul Wood, M.D. Park Ridge, The Wood Library-Museum of Anesthesiology Collection.

§ Letters between Ralph Waters and Henry Ruth, August 10, 1939-September 26, 1939. The collected papers of Ralph Waters, M.D. Madison, University of Wisconsin, Steinbock Library Collection.

|| Minutes of meeting of the Committee on Amalgamation, October 21, 1940. Cleveland, Archive of the International Anesthesia Research Society.

## References

1. Rosenberg H, Axelrod JK: Henry Ruth: Pioneer of modern anesthesiology. *ANESTHESIOLOGY* 78:178-183, 1993
2. Dearborn FM: Tom Buchanan 1876-1940. *Quarterly Phi Alpha Gamma* May 1940

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exclusively for 15 yr.<sup>3</sup> Elmer I. McKesson began manufacturing machines to administer inhalation anesthesia in 1910!<sup>4</sup> Although small in number, physician anesthetists had begun to develop the specialty in the decades before 1920.

Thomas Drysdale Buchanan, the first president of the American Board of Anesthesiology, held many university appointments. Most notably, he was the first physician in America to hold the title of Professor of Anesthesia, granted in 1904 by the New York Homeopathic Medical College. Almost all other teaching positions were in the Columbia University system. Three of his academic appointments were made before 1920,<sup>5</sup> another indication of the growth of the specialty of anesthesia. At the time of his death, Buchanan was Professor of Clinical Surgery (Anesthesia) at the New York Postgraduate Medical School and Clinical Professor of Anesthesia at the New York Medical College.<sup>5</sup>

In describing the decision to begin publication of a second anesthesia journal, the authors are to be complimented on their forthright discussion of the events leading up to the decision to publish *ANESTHESIOLOGY*. Our research has revealed an additional reason: the decision to begin publishing *ANESTHESIOLOGY* was made after McMechan's death, to accommodate a prior, secret agreement between the American Society of Anesthetists (ASA) and McMechan.<sup>†</sup>

Ruth was a medical consultant to an exhibit on anesthesia at the 1939 New York World's Fair. He was a member of an ASA-sponsored committee, chaired by Paul Wood, that designed the Anesthesia exhibit at that World's Fair.<sup>‡</sup> The display, sponsored by Winthrop Chemical Company, was housed in the Hall of Man. It was one of the first opportunities that organized physician anesthesia had to explain the specialty to the general public.<sup>6</sup>

One of Ruth's most challenging political assignments remains virtually unknown today. After McMechan died, a movement to unite the McMechan-sponsored Associated Anesthetists of the United States and Canada and the ASA into one great anesthesia society was born. Ruth chaired a committee, for the ASA, charged with exploring the possibility of merging. Negotiations began in the fall of 1939,<sup>§</sup> and both sides met October 21, 1940.<sup>||</sup> Ultimately, the committee failed