these two spaces are adjacent to each other, only separated by Charles Street, they are two distinct parks. I hope this clarification helps steer visitors in the right direction to admire perhaps the most visible symbol of our specialty.

Competing Interests

The author declares no competing interests.

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2020 Severinghaus Lecture on Translational Science: Reply

In Reply:

I thank Dr. Ortega[1] for clarifying the location of the Ether Monument in the Boston Public Garden. In fact, no living person is better suited to point out my oversight.[2] In 2006, Dr. Ortega published a book entitled *Written in Granite: An Illustrated History of the Ether Monument*.[3] He has also contributed to the restoration of the Ether Monument. In 2004, when the City of Boston undertook a complete restoration of the monument, an endowment fund was created to maintain the structure.[4] The proceeds from Dr. Ortega's book have been directed to the endowment fund, helping to support the preservation of the statue.[5]

In the 2020 John W. Severinghaus Lecture on Translational Science, I described the Ether Monument as a symbolic reminder of "relentless innovation."[2] Only through such innovation will we ensure that all patients gain access to anesthesia care that improves their long-term outcomes. The Ether Monument, with its location now correctly identified, is well worth a visit the next time you are in Boston.

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Competing Interests

Dr. Orser serves on the Board of Trustees of the International Anesthesia Research Society (San Francisco, California) and is a codirector of the Perioperative Brain Health Center (Toronto, Ontario, Canada; http://www.perioperativebrainhealth.com). She is a named inventor on a Canadian patent (2,852,978) and two U.S. patents (9,517,265 and 10,981,954). Dr. Orser collaborates on clinical studies that are supported by in-kind software donations from Cogstate Ltd. (New Haven, Connecticut).

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Perioperative Pulmonary Aspiration: Comment

To the Editor:

The closed claims analysis of cases of pulmonary aspiration of gastric content by Warner *et al.*[1] includes

important information regarding the impact of the administration of cricoid pressure. In the 49 claims that included endotracheal intubation, cricoid pressure was applied in 22 (45%) and not applied in 19 (39%). In other words, in this cohort pulmonary aspiration was reported more often during than in the absence of applied cricoid pressure. This finding reemphasizes the lack of scientific evidence for a protective effect of cricoid pressure application.[2–4] The authors explicitly acknowledge this fact. Therefore, the onsite anesthesiologist reviewers' judgment that lack of use of cricoid pressure contributed to aspirations in 15 claims is unjustified.

Administration of cricoid pressure has been documented to be associated with numerous adverse effects, including provocation of gagging and vomiting when applied early during induction of anesthesia[5]; worsening of laryngoscopic and intubating conditions[6–8]; a decrease in lower esophageal sphincter tone[9,10]; highly variable location, direction, and degree of applied force[11]; and increased physical and cognitive workload for the practitioners.[12] All of these factors may facilitate gastric regurgitation and subsequent pulmonary aspiration. It could thus be reasonably argued that use of cricoid pressure contributed as much to the aspirations in 22 (45%) claims as did lack of it. For that very reason, use of cricoid pressure should have been listed under "Clinical Care Issues in Aspiration Claims" (table 5 of the publication), just as lack of cricoid pressure was.[1]

In 79% of the 115 analyzed claims, only one anesthesia professional had cared for the patient, a nasogastric tube was in place immediately before the procedure in only 51% of patients with documented gastrointestinal obstruction or other acute intraabdominal pathology, and more than three attempts at endotracheal intubation were noted in 10 claims.[1] Quantitative information regarding the incidences of those clinical care issues during and in the absence of administration of cricoid pressure would help to understand why pulmonary aspirations occurred with comparable frequency under both circumstances. Possibly, clinical care issues other than use or nonuse of cricoid pressure were the primary determinants of pulmonary aspiration. After all, the three major factors considered to be important in reducing the incidence of pulmonary aspiration are experience, assistance by experienced anesthesiologists, and close supervision of inexperienced anesthesiologists.[13]

For the numerous documented adverse effects of cricoid pressure and its unproven clinical benefit, many anesthesiologists have abandoned this practice altogether. However, a considerable number of anesthesiologists continue with this practice for mostly medicolegal concerns. In a recent electronic survey of randomly selected Fellows of the Australian and New Zealand College of Anaesthetists designed to quantify the use of cricoid pressure in patients presumed to be at risk of gastric regurgitation, and to identify the potential impact of medicolegal concerns on clinical decision making, 267 respondents indicated to routinely apply cricoid pressure.[14] Of note, for 159 (60%) of them, the potential medicolegal consequences of not using cricoid pressure in a patient who subsequently aspirates were one of the main reasons for doing so. Anesthesiologist reviewers' judgment that omission of cricoid pressure contributes to cases of pulmonary aspiration,[1] and continued recommendation by some current guidelines of national professional societies to administer cricoid pressure,[15,16] are likely to contribute to those medicolegal concerns. The continued recommendations of British professional societies to use cricoid pressure[15,16] may explain why the United Kingdom is one of only a few countries in which cricoid pressure is still frequently applied, especially when compared with other European countries. In a questionnaire distributed electronically to instructors of the European Trauma Course, the use of cricoid pressure during rapid sequence induction in trauma patients was reported twice as often by instructors from the United Kingdom (83.1%) compared with those from all other countries (39.4%), with the lowest use in Denmark (12.5%).[17]

In the absence of conclusive evidence for a benefit of use of cricoid pressure, use of this practice for mostly medicolegal reasons is of concern. Several professional societies have recognized this dilemma and adjusted their recommendations accordingly. For example, the 2010 Scandinavian Clinical Practice Guidelines on General Anesthesia for Emergency Situations,[18] the 2015 Guideline on Airway Management released by the Board of the German Society of Anesthesiology and Intensive Care Medicine,[19] and the 2021 updated consensus-based recommendations for management of the difficult airway by the Canadian Airway Focus Group[20] no longer recommend routine application of cricoid pressure. The 2021 European Resuscitation Council Guidelines for Adult Advanced Life Support specifically discourage the use of cricoid pressure altogether.[21]

The use of cricoid pressure as an essential component of rapid sequence induction is decreasing.[17,22] Guidelines must be phrased in a manner that clearly reflect existing scientific evidence. In the absence of conclusive evidence of a benefit of cricoid pressure, but with evidence of numerous adverse effects of it,[23,24] lack of its application should *per se* no longer be considered a contributory factor to pulmonary aspiration. Anesthesiologists who are convinced that the documented disadvantages of cricoid pressure outweigh the postulated advantages should be able to exercise their judgment without fear of medicolegal consequences. "Expert" opinion must be based on conclusive scientific evidence. Otherwise, traditional practice considered "safe practice" may actually be compromising safe practice.[25]

Competing Interests

The author declares no competing interests.

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The corresponding author of the original article referenced above has read the letter and does not have anything to add in a published reply.—Evan D. Kharasch, M.D., Ph.D., Editor-in-Chief

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