A Survey of Current Bronchoscopy Practices in Canada

A Dearth of Evidence or Evidence-Based Practice?

To the Editor:

Several surveys have previously described technical data on the practice of bronchoscopy in the United States, including a 39-question survey by the American College of Chest Physicians in 1991 and an 84-question survey by the American Association of Bronchology in 2000. We designed an analogous 64-question survey to provide unique Canadian data on similar variables of bronchoscopy practice and recently mailed it to all members of the Canadian Thoracic Society, with a response rate of approximately 40% (in contrast to response rates of 51% and 30% in the aforementioned American surveys, respectively). Our results are somewhat disconcerting, with striking variability in practice seen across multiple technical components of bronchoscopy; we present several such salient findings here.

Although evidence is somewhat limited, the American College of Chest Physicians recommends only 4 h of “nothing by mouth” prebronchoscopy time. In contrast, only 45% of our respondents felt comfortable performing a bronchoscopy 4 h after the last liquid was ingested and 20% 4 h after the last solid. Such restricted practice necessarily incurs both logistical and financial costs, as well as unnecessary diagnostic and therapeutic delays.

While the use of topical analgesia in the upper airway by application of lidocaine gargles, sprays, and pledgets was reported universally in our survey, the use of alternative topicalizing modalities was more provocative. In fact, 40% of our respondents reported using transtracheal lidocaine injection, and 65% reported using nebulized lidocaine at least some of the time, despite very limited evidence in support of either practice.

Premedication using anticholinergic drugs previously has been performed under the pretext of reducing airway secretions, cough, bronchoconstriction, and vagal phenomena, although more recent recommendations have discouraged their use because of the negligible evidence of benefit and possible harm. Nevertheless, 53% of respondents in our survey reported the use of anticholinergic premedication at least some of the time, and 17% reported frequent or routine use.

For IV sedation, a much more narrow range of procedural sedatives was reported in our survey than in the US studies cited previously, with fentanyl and midazolam used most frequently by far. Of note, the powerful anesthetic propofol has now emerged as an option in procedural sedation since those US studies (with use reported by 8% of our respondents); however, only 20% of our respondents reported receiving any training in the safe use of procedural sedation.

Whereas observational studies have shown no benefit to the use of fluoroscopic guidance for transbronchial lung biopsy in diffuse parenchymal lung disease, 68% of our respondents reported using it at least some of the time. Further, 67% of our respondents reported the routine use of chest radiography following transbronchial lung biopsy; despite available evidence showing that postprocedural films are indicated only in patients who are symptomatic.

Given the well-established and growing role of bronchoscopy in both diagnosis and therapy of multiple pulmonary pathologies, our data offer some important commentary. Although our survey provides the first Canadian data of its kind, to our knowledge, the wide variability in technical practices shown here is consistent with the US studies cited previously and with other studies. The general consensus appears to be that evidence is often weak or lacking for many routine aspects of bronchoscopy practice, yet when present, it is often disregarded.

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