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Commentary: Pleurography: We can, but should we?

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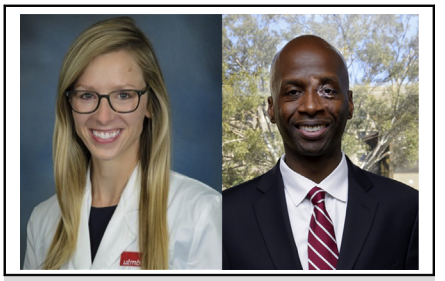

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CENTRAL MESSAGE

Prolonged air leak can be a bothersome complication. The use of pleurography as part of a multimodal approach to localizing air leaks can improve outcomes and decrease the costs of care.

Various methodologies for detecting air leaks have been described in the literature, including intraoperative and radiologic strategies. In the study by Watanabe and colleagues,[1] the authors revisit pleurography as a safe and effective method for localizing prolonged air leaks. Existing data is clear that patients with prolonged air leaks have an longer hospital length of stay as well as higher overall treatment costs.[2] This approach offers a protocol for prompt radiologic diagnosis to optimize operative intervention for pleural fistulae.

Inclusion criteria for this study included patients with recurrent primary and secondary spontaneous pneumothorax. To adequately investigate the pleural cavity, optimal tube thoracostomy position and function are essential. Patients with bullous pulmonary disease may require multiple tubes for satisfactory reexpansion and thus need a modified protocol for sequential instillation of contrast into each tube. This modification could also be applied to patients with postoperative air leak following lobectomy or segmentectomy, a common and potentially bothersome complication.[3]

Although the contrast used in this study resulted in few complications, the study is limited in its evaluation of the entire lung parenchyma. The authors acknowledge that visualization of air leaks is poorest at the lung apex and centrally near the hilum. Watanabe and colleagues[4] described using saline-filled computed tomography thoracography for preoperative localization of air leaks. By combining these 2 approaches through utilization of computed tomography thoracography with nonionic iodine-based contrast, routine complete evaluation of the pleural space might be achieved.

Fluoroscopy is an inherently low-cost study, but implementation of the described pleurography protocol would require specialized training for radiology technicians, as this procedure is used infrequently worldwide. This training would include instructions on patient positioning to visualize all areas of the pleural cavity and guidelines for managing the drainage catheter during the procedure.

With the addition of pleurography, the authors hope to minimize the length of operative time and maximize surgeon efficiency by optimizing location and size of incisions. Although their data do not indicate a statistically significant decrease in operative time for patients who underwent pleurography, visualization of the pleural space does provide invaluable information for the surgeon. It is our opinion that pleurography should not be considered in isolation; instead, other points of evidence, such as previous imaging studies, clinical data, and patient factors, should be used together before taking a patient to the operating room. Pleurography should be considered as part of a multimodal strategy for minimizing hospital-associated costs and improving outcomes for patients undergoing thoracic surgery.

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