Letters to the Editor

The Editor welcomes submissions for possible publication in the Letters to the Editor section that consist of commentary on an article published in the Journal or other relevant issues. Authors should:

- Include no more than 500 words of text, three authors, and five references
- Type with double-spacing
- Submit the letter electronically via the Internet to jtcvs@drexel.edu if possible
- For nonelectronic submissions, send a disk and three copies of the disk's content, a copyright transfer letter (see Table of Contents for location) signed by all authors, and a cover letter describing any conflicts of interest related to the contents of the letter

Letters commenting on an article published in the JTCVS will be considered if they are received within 6 weeks of the time the article was published. Authors of the article being commented on will be given an opportunity to offer a timely response (2 weeks) to the letter. Authors of letters will be notified that the letter has been received. Unpublished letters cannot be returned.

Determinants of perioperative morbidity and mortality after completion pneumonectomy

To the Editor:

I read with interest the article by Fujimoto and associates on completion pneumonectomy.¹ Although the authors obtained a better result than that of some previous reports, the postoperative mortality rate, 7.6%, is still unacceptably high. To my knowledge, perioperative morbidity and mortality differ markedly among experienced surgeons. The mortality may be as high as 30% or as low as 2%, but the reason for the divergent results has not been established.

I think that the high perioperative morbidity and mortality are related to hemodilution. Hemodilution will increase the production of lymphatic fluid in the heart and lungs.² The increased amount of lymphatic fluid cannot immediately drain through cardiopulmonary lymph ducts because of strong resistance in the mediastinal lymphatic system.³ Thus, storage of excess lymphatic fluid in the heart and lungs may harm these organs.^{4,5}

Hemodilution during the perioperative period is usually caused by large volume bleeding or excessive water input. I agree that completion pneumonectomy should be done by skilled thoracic surgeons to avoid major blood loss. In addition, strict control of water input is also important. Limitation of water may decrease the production of lymphatic fluid in the heart and lung.

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12/8/117619

doi:10.1067/mtc.2001.117619

Reply to the Editor:

We appreciate the insightful comments by Y. Cui, MD, regarding our manuscript on completion pneumonectomy. As he pointed out, patients who underwent this procedure are especially prone to hemodilution because of the excessive loss of blood and the possibility of excessive fluid overload.

Postpneumonectomy pulmonary edema is one of the most dangerous complications, with its mortality rate being 80% to 100%.¹ Hemodilution, fluid overload, interruption of pulmonary and mediastinal lymphatic drainage, increased vascular permeability, and hyperinflation of the preserved lung are the possible causes of this lethal complication. Physicians should take special care to exclude all these factors, keeping the patient dry after the operation and doing adequate pleural drainage to avoid the mediastinal shift.

Completion pneumonectomy is still a challenging procedure, despite these efforts to decrease morbidity and mortality. Mortality is especially high in patients with early complications of the initial procedure, as shown in our report. Nonetheless, something must be done for patients with otherwise poor prognoses.

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12/8/117620

doi:10.1067/mtc.2001.117620