veno-venous support in cases of right ventricular failure. Although veno-venous support is generally not successful in cases of right ventricular failure, the patient in our series was seen with severe pulmonary hypertension and a large atrial septal defect with a right-to-left shunt. Flow from the cannula was therefore preferentially shunted across the atrial septal defect, resulting in functional veno-arterial support.

We also commend their group for the use of the Avalon dual-lumen cannula (Avalon Laboratories, LLC, Rancho Dominguez, Calif) for patients with a body surface area greater than 2.0. In our initial experience, we were concerned that high enough flow rates to fully oxygenate these patients would not be achievable. We have subsequently, however, used the Avalon cannula with surprising success in patients with a body surface area greater than 2.0.

In reply to the comment regarding range of gas exchange rates in this series, we too generally recorded rates between 200 mL/min and 300 mL/min. Only a single time point was found to have a rate greater than 500 mL/min, and this value may simply represent laboratory error.

This remains an exciting time in the evolution of care for patients with severe lung injury, and further study of the use of ambulatory extracorporeal membrane oxygenation is still required.

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CONCERNING EN MASSE LOBECTOMY

To the Editor:

We read with interest the article entitled, "Video-Assisted Thoracoscopic

Surgery (VATS) Lobectomy: Catastrophic Intraoperative Complications," by Flores and colleagues¹ in the December 2011 issue of *The Journal of Thoracic and Cardiovascular Surgery*. We are interested in their experience and would like to make some comments.

For patient 1 among the 12 cases they described, Flores and colleagues¹ said that the posterior ascending branch of the pulmonary artery had calcified lymph nodes that required dissection. Subsequently, the pulmonary artery was damaged irreparably, and intrapericardial proximal arterial control was needed with a thoracotomy. As a result, a planned right upper lobectomy was eventually converted into a pneumonectomy. We do not know the details of the manipulation, because Flores and colleagues¹ did not describe it further.

We would like to recommend in such cases the "en masse lobectomy." Originally, en masse hilar management was the main technique used in lobectomy, because surgeons warned against hilar dissection and individual ligation for fear of spreading infection by opening inflamed tissue planes.² Times have changed, however, and individual hilar management has become the standard procedure in modern lobectomy. Nevertheless, some authors^{3,4} still report that en masse lobectomy is useful under certain conditions.

From an oncologic perspective, care should be taken when handling malignant lung diseases because of the potential for lymph node metastasis. If no lymph node metastasis is detected preoperatively, and there are inflammatory adhesions to the pulmonary artery, we do not think that dissection is required. Even if this is not the case, we think that an octogenarian would welcome an en masse lobectomy as a thorough pneumonectomy. If no calcifications are found, a mechanical stapler could be applied to the divided root of the right upper lobe, as is done with simultaneously stapled lobectomies.⁵

We believe that this technique might help to avoid catastrophic intraoperative complications. Thus, with an understanding of what has taken place in the past, it should be possible to reshape the present and future.

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Reply to the Editor:

With regard to our article, "Video-Assisted Thoracoscopic Surgery (VATS) Lobectomy: Catastrophic Intraoperative Complications,"¹ I agree with Kamiyoshihara and associates that en masse lobectomy (tourniquet lobectomy) is a useful tool in the thoracic surgeon's armamentarium. This procedure has the potential, however, to leave N1 nodal disease behind in patients with lung cancer. The key is to identify the potentially dangerous situation before starting the dissection. Heavily calcified lymph nodes and an artery that is inseparable from the bronchus should be clues to avoid further dissection, and a tourniquet lobectomy may prove to be a very useful alternative. Nevertheless, tourniquet lobectomy does not