PULMONARY ENDARTERECTOMY IN SOUTHEAST ASIA

Reply to the Editor:

We have read the letter “Experience Does Matter for Pulmonary Endarterectomy Surgery” by Yıldız¹ and agree that pulmonary endarterectomy (PEA) is indeed a complex procedure that requires not only good surgical expertise but also a competent multidisciplinary team to manage the patient preoperatively, perioperatively, and postoperatively. Recognizing the lack of such a service within Southeast Asia and the inability of patients with chronic thromboembolic pulmonary hypertension (CTEPH) to seek adequate workup and management, our center has set up the first multidisciplinary CTEPH service within Southeast Asia, offering patients dedicated workup and treatment options ranging from medical therapy, balloon pulmonary angioplasty, to PEA. The development of such a service within the region will allow patients with no prior treatment options and who are unable to travel to expert PEA centers in the world to now receive such. The team has had the opportunity to train and gather experience at world-renown institutions in the United States, United Kingdom, and Japan. It is well known that institutional experience affects patients’ outcomes, and there is a learning curve, with improved results for successive patients treated.² Our team has worked hard to learn from the experience of others to minimize this learning curve and to improve patient safety. The results do affirm this. Since November of 2016, we have performed 12 surgeries (10 described in our earlier publication and 2 additional since then), there were no inpatient mortalities (and none on follow-up to date), and all patients had a reduction in pulmonary pressures postoperatively.

We clarify that the deep hypothermic circulatory arrest (DHCA) time of 46 ± 15 minutes that we previously reported³ is the total cumulative time for both lungs. This is in line with published recommendations of 20 minutes per lung,⁴ that of a major US PEA center of 36.3 ± 13 minutes,⁵ as well as data from Europe of a mean time of 41 to 43.8 minutes.⁶ Indeed, the most experienced international centers have found that the mean cumulative DHCA time may increase with increasing experience as more technically challenging patients with subsegmental disease are treated. There is no evidence of a relationship between the DHCA time and the occurrence of the specific complication of subdural hematoma. The reason for this report is to highlight to others the unexpected high incidence of a previously less-recognized complication. As highlighted in our earlier article, the higher incidence may be due to our routine screening of patients (a fair proportion

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were asymptomatic), and all were managed conservatively (except 1 requiring surgical drainage). The mechanisms we postulate are discussed in our earlier article.³ There appears to be a predisposition of Asians being more susceptible to intracranial hemorrhages. In a meta-analysis, the incidence of such bleeds per 1,000,000 person-years was 24.2 in whites, 22.9 in blacks, 19.6 in Hispanics, and 51.8 in Asians.⁷

Going forward, we will strive to improve on the current foundation and framework that our multidisciplinary CTEPH program has achieved to provide better care for the patients in the region.

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