Authors have nothing to disclose with regard to commercial support.

for ATAAD was significantly higher among female than male patients (31.9% vs 21.9%; $P = .013$).⁹ Finally, recent evidence¹⁰ also demonstrates that female sex was strongly correlated with ruptured ATAAD (odds ratio, 1.89; 95% confidence interval, 1.05-3.39; $P = .033$). Moreover, a prospective population-based study from the Oxford Vascular Study¹¹ indicated that a higher portion (61.1%) of out-of-hospital cardiac arrest (ie, immediately fatal) after the incidence of acute type A dissection were women. More research is therefore needed in this area to further define the sex-related differences in patients with acute type A aortic dissection.

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<http://dx.doi.org/10.1016/j.jtcvs.2015.11.032>

GENDER DIFFERENCES IN ACUTE TYPE A AORTIC DISSECTION

Reply to the Editor:

We appreciate Shih and colleagues' interest and comments on our article.¹ Sex-related differences in patients undergoing repair of acute type A aortic dissection (AAAD) should be of great interest, given the important public health implications of understanding sex differences in outcomes after AAAD repair. However, only 1 previous study has focused on sex-related differences in patients undergoing surgical repair of AAAD using data from the International Registry of Acute Aortic Dissection (IRAD).² In that study, postoperative outcomes were significantly worse in female patients compared with male patients.

Shih and colleagues report results similar to those of the IRAD study, with worse outcomes in their female patients compared with their male patients.³ We respect their results, but there are several differences between their study and our study. Compared with our female patients, their females had a significantly worse overall preoperative clinical presentation, including 18% of patients with coma/stroke (vs 6.9% [brain ischemia] of our patients), 37.7% with shock (vs 19.6% of our patients), and 39.3% with grade 3 or 4 aortic regurgitation (vs 9.4% of our patients). Moreover, our study included a relatively recent cohort (between 2006 and 2013) that was managed according to modern operative techniques and advanced intensive unit care. We speculate that improvements in surgical techniques, critical care, and rehabilitation might result in equivalent outcomes in both sexes.

As suggested by Shih and colleagues, female patients with AAAD tend to have more critical conditions (ie, rupture or cardiac arrest) compared with male patients.⁴ Huynh and colleagues⁵ have suggested a possible histological difference in aortic wall tissue by sex; however, there is no evidence of sex-based basic differences in aortic wall tissue. We agree with Shih and colleagues' suggestion that further clinical and basic research is needed to define sex-related differences in patients with AAAD.

Authors have nothing to disclose with regard to commercial support.

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