Gender Important to TEVAR Decision


CHICAGO, Illinois, July 1, 2017 – It is well known that women have worse outcomes following treatment for abdominal aortic aneurysms, but a recent study finds that the results are similar for women undergoing TEVAR (thoracic endovascular aortic repair for intact descending thoracic aortic aneurysms) and that gender should be considered in an analysis of risk versus benefit.

“Female patients have higher mortality than male patients after TEVAR in a real-world population, even after adjusting for their older age and increased medical comorbidities,” said Dr. Sarah Deery of Beth Israel Deaconess Medical Center in Boston.

Dr. Deery was part of a multi-institutional team, led by vascular surgeon Marc Schermerhorn of Beth Israel, that evaluated Vascular Quality Initiative data collected on 2,574 patients undergoing TEVAR for intact descending thoracic aortic aneurysm.

Results, published in the July edition of the Journal of Vascular Surgery, found that after adjusting for age, aortic size index, symptoms and co-morbidity, female gender remained independently predictive of both short and long-term mortality.

The authors compared the demographics and operative details, as well as 30-day and one-year outcomes of men versus women. In this series, the women tended to be older, have more COPD and have more symptoms. Iliac access procedures were more common in women.

Given these differences, it was not surprising that mortality was significantly higher in females at both 30 days (5.4% vs 3.3%) and one year (9.8% vs 6.3%). However, after adjusting for age, aortic size index, symptoms and co-morbidity, female gender remained independently predictive of both short and long-term mortality.

Women on average have smaller blood vessels than men, including the aorta and iliac arteries. It is common practice to consider repair of AAA in women at sizes smaller than men (e.g., at 5cm rather than 5.5cm). Even with this adjustment, mortality in women after repair tends to be worse than men. The exact reason for this is unknown, but thought to be related to access vessel size and aortic size index (aortic diameter normalized to Body Mass Index).

A similar but less well-studied phenomenon exists in the care of thoracic aneurysm. Access vessel size becomes even more important as TEVAR devices have larger diameters than those used in infra-renal EVAR. Although aneurysmal
disease is more common in men, evaluation of the risks and benefits of TEVAR in women requires specific consideration of gender differences in both disease natural history as well as treatment outcomes.

“Further research into the cause of these sex differences will allow us to determine the optimal threshold for repair of thoracic aortic aneurysms in female patients,” Dr. Deery said.

To download the complete article (open source from June 21 to Aug. 30), click: http://www.jvascsurg.org/article/S0741-5214(17)30078-2/abstract

For information your patients may be interested in, click:

https://vascular.org/patient-resources/vascular-conditions/thoracic-aortic-aneurysm

https://vascular.org/patient-resources/vascular-treatments/repair-thoracic-aortic-aneurysm

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