Adjusting for Aortic Size Index reduces gender differences in outcomes; may be a better indicator threshold for female patients

CHICAGO, Illinois, April 1, 2017 – Following repair of abdominal aortic aneurysm (AAA), women appear to have worse outcomes than men in terms of mortality and morbidity.

Aortic aneurysm rupture remains a significant cause for morbidity and mortality. With increasing awareness of the disease, as well as continued screening programs, the medical community can limit its impact.

Indications for repair include diameter greater than 5.5cm (in men), rapid growth, symptoms and rupture. Because women tend to be smaller in stature, repair at smaller diameters are often recommended. Women are less likely to develop AAA, but when they do, the aneurysm tends to grow faster and ruptures sooner than in men. Further, it appears that women have worse outcomes than men following procedures to repair AAA.

As reported in the April edition of the Journal of Vascular Surgery, researchers from Harvard’s Beth Israel Deaconess Medical Center and Massachusetts General Hospital, led by vascular surgeon Dr. Marc Schermerhorn, performed a study examining gender differences in AAA repair.

Reviewing data from 6,611 patients undergoing AAA repair registered in the National Surgical Quality Improvement Program database, this group confirmed previous work suggesting higher morbidity and mortality in women following repair, even after adjusting for age, aortic diameter and other medical conditions.

A possible explanation for this difference proposed by the authors is that women have smaller baseline aortic diameters given their overall smaller body size. The researchers re-analyzed the data using “Aortic Size Index (ASI)” instead of aortic diameter. This index divides aortic diameter by body surface area.

In doing so, Dr. Schermerhorn noted that, “adjusting for ASI reduces these (gender) differences, suggesting that ASI may be a better indicator threshold for AAA repair for female patients.”

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