CHANGES IN GENDER-RELATED DIFFERENCES IN ACUTE AORTIC DISSECTION OVER TIME

Poster Contributions
Hall C
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Session Title: Aortic and Peripheral Artery Dissections
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Purpose: Previous publications evaluating acute aortic dissection (AAD) showed that women often present differently than men. Once diagnosed, women are less likely to be treated with immediate beta blockers or undergo surgery. Those women who do receive surgical treatment have worse outcomes and increased mortality compared to men. We proposed to analyze if these trends have persisted over time for both men and women.

Methods: Patients in the International Registry of Acute Aortic Dissection (IRAD) with spontaneous dissection were first divided into 3, 5-year cohorts: 1996-2001(T1), 2002-2007(T2), 2008-present(T3), with similar numbers of patients in each cohort. Each cohort was further divided by gender. We then looked at presenting symptoms, management type and overall outcomes in each group and over time.

Results: Overall we studied 2755 men (66.9%) (T1=854 men, T2=998 men, T3= 903 men), and 1364 women (31.5%) (T1=425 women, T2=469 women, T3=470 women). Women were 5 years older than men on presentation. Men and women had similar delays from symptom onset to seeking treatment at 90 and 96 minutes for men and women respectively in T3. In addition, the time from symptom onset to diagnosis improved in women over time from 6.5 hours in T1 to 5.4 hours in T3 (p=0.039). This is slightly longer than the delay found in men, at 4.7 hours in T3, down from 5.5 hours in T1 (p=0.016). Also, surgery has been increasingly used as treatment option for women with Type A AAD, with surgery done in 85.6%, up from 71.9% in T1 (p<0.001; linear coefficient p< 0.001). The time from symptom onset to surgery has also decreased over 15 years for both men and women (p<0.001 for both groups) Overall, mortality in women with Type A AAD has significantly improved over time, with mortality currently at 22.3%, compared to 32.7% 15 years ago (p=0.011, linear coefficient p=0.005). No other differences in mortality over time were seen.

Conclusions: The data suggest improvements for women in time to diagnosis, use of rapid aggressive surgical treatment in Type A and an overall decrease in type A mortality. These encouraging results suggest the gender discrepancy in the treatment and outcomes of aortic dissection patients seems to be narrowing.