Commentary: In surgery for acute type A aortic dissection, follow the principles and do what you need to do

Ourania Preventza, MD, Kim I. de la Cruz, MD, and Joseph S. Coselli, MD

In this issue of the Journal, Mennander and colleagues, in a cumulative effort among 8 Scandinavian centers, address the significance of bicuspid aortic valve (BAV) in patients who underwent surgery for type A aortic dissection. A comparison of propensity score–matched patients with BAV versus tricuspid aortic valve (TAV) showed no between-group differences in early or midterm survival, nor were these outcomes affected by the greater need for more complex aortic root surgery in patients with BAV.

The authors should be congratulated for their outstanding effort. In their study, 1122 patients underwent surgery for acute type A aortic dissection over a 10-year period (2005-2014). Of these, only 65 (5.8%) had BAV (mean follow-up time, 3.2 years). Consequently, the study was underpowered to detect significant differences in major clinical end points because of the small number of patients with BAV; further, the follow-up timeframe was too short to permit differentiation between BAV versus TAV cases regarding aortic valve (AV) competency in those with root repair or replacement. Thus, major conclusions cannot be drawn.

Despite these limitations, this article highlights several important issues. First, and not surprisingly, BAV was more prevalent in patients with acute type A aortic dissection (5.8%) than in the general population (2%). Clinical series and autopsy reports have established that BAV prevalence in patients with acute type A aortic dissection is 7% to 15%, and it is much higher in those aged less than 40 years.2

Second, although not specifically addressed, the risk for dissection in patients with BAV versus TAV remains a topic of debate. The current consensus is that although the relative risk is higher in patients with BAV versus TAV with comparable aortic dimensions, the absolute risk is low.3 This supports the use of similar surgical strategies for ascending aorta replacement in both BAV and TAV cases.

Third, whether patients who need surgery for acute type A aortic dissection have a BAV or TAV is irrelevant. The surgical procedure should be tailored to the individual patient.

See Article page 760.

In surgery for acute type A aortic dissection, as in every surgical procedure, the surgeon should do neither too much nor too little. Surgeons should use sound judgment to offer...
patients the best possible care under their specific circumstances.

References