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Commentary: Full-service salvage operation

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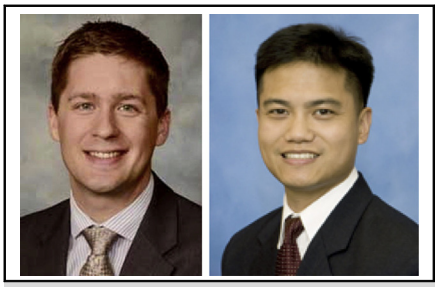

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CENTRAL MESSAGE

During salvage scenarios, it is okay to leave residual lesions that can later be addressed electively.

The primary goal in the treatment of acute aortic syndromes such as dissection and rupture is to produce survivors. Only after survival is reasonably assured should attention be given to treating concomitant disease that is not immediately life-threatening. However, in the acute period of presentation and treatment, delineating between immediately life-threatening and not immediately life-threatening lesions is not always clear. Aortic coarctation accounts for 6%–8% of all congenital heart disease and is associated with bicuspid aortic valve defects, ventricular and atrial septal defects, and patent ductus arteriosus. Aortic coarctation is most often diagnosed in infancy or early childhood, but mild forms of the disease may not present until later in life. Unrepaired aortic coarctation can lead to aortic aneurysm and/or dissection, ventricular dysfunction, coronary artery disease, and stroke.[1]

Recommendations from the European Society of Cardiology and the American Heart Association/American College of Cardiology state that coarctation repair is indicated in all adult patients with a >20 mm Hg pressure difference between the upper and lower extremities and hypertension (>140/90 mm Hg), severe elevations in blood pressure in response to exercise, or left ventricular hypertrophy. Regardless of pressure gradient, patients with >50% aortic narrowing also should be considered for treatment.[2,3] Traditionally, surgical repair has been the treatment of choice for coarctations in patients of all ages; however, transcatheter therapy has become the treatment of choice for patients weighing >25 kg.[4,5]

Mihalj and colleagues[6] should be congratulated on their management of a complicated case of a contained ascending aortic rupture in a young man with concomitant aortic root/ascending aneurysm, bicuspid aortic valve, and aortic coarctation. Emergent surgical repair of the aortic rupture and aneurysm is clearly indicated; however, the optimal treatment of a coarctation in this scenario deserves consideration. The authors were faced with choosing between treating the coarctation in the emergent setting or providing expectant management with elective TEVAR postoperatively. In the setting of emergent proximal aortic surgery, a chronic coarctation that is well collateralized with minimal gradients should be managed expectantly. The added morbidity of circulatory arrest, arch reconstruction, and/or deployment of a frozen elephant trunk is clearly not indicated in a hemodynamically insignificant coarctation. Urgent surgical repair should be considered only in the presence of severe left ventricular dysfunction or end-organ dysfunction secondary to malperfusion from the coarctation.

The management of this young man with undiagnosed coarctation and an acute aortic syndrome highlights the importance of a multidisciplinary approach to aortic pathology along with the merits of managing non–life-threatening concomitant pathology conservatively. It is important for surgeons to remain up to date on evolving treatment options as indications and capability of transcatheter therapies continues to expand.

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