To find the least common denominator—or better—do not merely reduce to the max

Martin Czerny, MD, MBA

From the University Heart Center Freiburg-Bad Krozingen, Freiburg, Germany.

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Address for reprints: Martin Czerny, MD, MBA, Albert Ludwigs University Freiburg- Faculty of Medicine, University Heart Center Freiburg-Bad Krozingen, Freiburg, 15 79189, Germany (E-mail: martin.czerny@universitaets-herzzentrum.de).

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Indicating treatment for any kind of aortic pathology irrespective of segment and extent remains an estimation of the probability of whether aortic pathology will be the limiting problem of the patient seeking advice and, if so, the maximum diameter of the lesion is still used as the most robust surrogate parameter, with the knowledge that other factors may contribute to success or failure, early or late.

The current study reminds us of something that is already well established for several other acute and chronic cardiovascular and noncardiovascular pathologies, namely potential differences between sexes with regard to outcome, or better—differences attributable to the different risk profiles between sexes at the time of treatment.¹⁻³

Although the current study did not identify sex per se as an independent predictor of outcome, it revealed substantial differences with regard to classical risk factors at the time of treatment, which is probably the most important message of this report, that balancing treatment versus watchful waiting in any kind of aortic pathology is not only a factor of reducing the indication to the max (maximum aortic diameter) but is the art of anticipating the interplay of concomitant cardiovascular and noncardiovascular pathology in conjunction with the extent of the repair needed and thereby with the potential probability of success, early and late. The inhibition threshold to recommend treatment is potentially lower in less-invasive treatment options such as thoracic or thoracoabdominal endovascular aortic repair but even here, the natural course of the underlying pathology remains the most important determinant of late outcome even after successful repair.⁴

Whereas risk scores have been established in several other fields of cardiovascular medicine, there is work to do in the aortic sector. Several risk scores directly consider the type of treatment (aortic valve replacement, coronary artery bypass grafting, concomitant aortic repair), but a direct consideration of the underlying pathology is lacking.⁵

What this study nicely points out is that the underlying pathology is more a determinant of outcome after these

Martin Czerny, MD, MBA

Central Message

Weighing individual risk and anticipating outcome based on underlying pathology forms the least common denominator to success.

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operations than other factors are (such as sex or the extent of repair)—let us pick one example—women were more likely to present with nondissective disease and endarterectomy was associated with adverse outcome. This becomes very clear when reflecting that patients with postdissection aneurysmal disease hardly ever suffer from any kind of obliterative arteriopathy, such as coronary artery disease or peripheral arterial occlusive disease and in addition—a bicuspid aortic valve may serve as an additional protective factor against atherosclerosis. On the contrary, endarterectomy is a surrogate of high obliterative load irrespective of segment and despite the “phenotype” aneurysm, the “genotype” may well be the one of a penetrating atherosclerotic ulceration, which is of obliterative nature and this well affects outcome, early and late.⁶

In summary, this report adds in understanding that a risk factor specific view on indicating treatment in patients with aortic pathology is most important and that indicating treatment should not only be reduced to the max (maximum aortic diameter) but that weighing individual risk and anticipating outcome based on underlying pathology forms the least common denominator to success.

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