The nice dissection newly conceived: Type B is not a benign disease

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Central Message

A detailed morphologic evaluation of acute type B aortic dissection identifies patients at risk for aorta-related adverse events. Prophylactic TEVAR in this subgroup can help to minimize these events.

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Type B aortic dissection has always been regarded as the nice dissection in comparison with other patterns—type A or in particular type non-A non-B—with respect to the initially benign course of the disease without the need for urgent or emergency intervention in many cases. As knowledge of the natural course of the disease evolved, however, it became clear that the occurrence of complications—in particular with regard to aorta-related adverse events—was a matter of time and not a matter if at all or if not. This led to the conduct of the INSTEAD (Investigation of Stent Grafts in Aortic Dissection) study, with its XL follow-up finally confirming a survival benefit in patients having undergone prophylactic thoracic endovascular aortic repair with the intention to close the primary entry tear relative to patients receiving the best medical therapy alone.¹ These results finally affected European Society of Cardiology aortic guidelines to recommend consideration of thoracic endovascular aortic repair in uncomplicated type B aortic dissection as prophylactic therapy.²

Knowledge evolved, and several other morphologic parameters, such as location of the primary entry tear, distance of the primary entry tear to the left subclavian artery, retrograde components of propagation, false-lumen thrombosis status, and finally initial false-lumen diameter, were found to be predictors of early (malperfusion, retrograde type A aortic dissection) as well as late (diameter increase) complications warranting treatment sooner or later.³⁻⁵ Concomitantly, it became clear that the potential for aortic remodeling is greater the shorter the interval is between the acute event and the time of treatment. The advance to chronic nature and thereby increased stiffness of the membrane is a major determinant of success or failure when the intent is to solve the issue by endovascular means.

All the previously mentioned components have to be seen as bricks in the wall of a bigger picture of acute and chronic aortic dissection, irrespective of location of the primary entry tear and irrespective of extent, whether type A, type B,

or—newly developed knowledge closing the gap between the classic A and B terms—type non-A non-B.⁶ This is where the value of the study in this issue of the *Journal* by Shimamoto and colleagues⁷ has to be seen, namely in the confirmation and support of recently developed knowledge that complications in as yet uncomplicated type B aortic dissections can be foreseen if attention is paid to detail when evaluating morphology.

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