


eComment: One-stage hybrid approach for type A acute aortic dissection repair: just because we can, should we do it?

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We read with interest the article of Chen and coworkers [1] who report their experience with the stented elephant trunk during type A aortic dissection (TAAD) repair. They tested new endovascular technology appropriate for aortic dissection and demonstrated its safety in the short-term.

From our point of view, it is unclear whether this therapy will indeed improve the long-term prognosis or lead to lower rates of late surgical re-intervention. The rationale to use this technique consists in obtaining an early thrombosis of the patent false lumen in the descending aorta and in preventing late thoraco-abdominal aneurysm formation.

However, stenting the descending aorta during emergent repair of TAAD has raised some conceptual and technical concerns [2]. The role of a patent false lumen in the residual dissected aorta after type A acute aortic dissection is still a question of matter. Many studies have demonstrated that a residual patent lumen does not affect the long-term outcome in patients who underwent standard surgical repair of TAAD and its presence is not necessarily associated with a faster aortic growth rate [3, 4]. This information is consonant with the documented benignity of the dissected descending aorta after recovery from acute type B dissection [5]. In addition, introducing a stented graft into an acutely dissected aorta may be cumbersome and may carry the risk of kinking or wrinkling of the graft, aortic disruption, peripheral embolization, paraplegia and malperfusion syndrome.

To summarize it would seem that only a few patients will really benefit from this one-stage hybrid approach, while all of them run a supplementary risk to a higher mortality and morbidity procedure. A possible alternative to this one-stage hybrid repair could come from a surgical technique which guarantees a radical surgical TAAD repair and at the same time creates the requisites for a future stent-graft deployment in case of subsequent descending thoracic aorta enlargement. Based on these considerations, we developed a technique which consists in replacing the ascending aorta and the arch and performing an extensive supra-aortic vessels debranching using a specially designed trifurcated vascular prosthesis. If the patients are among the few who develop a descending aorta aneurysm, this extensive debranching performed during acute surgery will facilitate a second endovascular treatment.

References


