



# Pro: “Debate: does every ascending aorta repair require at least an open distal anastomosis at the innominate, Or not?”

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Received: 20 December 2018; Accepted: 30 December 2018; Published: 09 January 2019.

doi: 10.21037/jovs.2019.01.02

View this article at: <http://dx.doi.org/10.21037/jovs.2019.01.02>

You must have already read my opponent's opinion regarding this controversial topic to which he concluded, and I quote: “*open distal anastomosis is not always required for every ascending aortic repair except cases of acute aortic dissection*”. The truth to the matter is far than this Pro-Con Debate and its more intrinsic to the nature of the operation performed, skills and discretion of the surgeon, patient selection and associated morbidities, and understanding of the value of avoiding the patient “a second look”!

In 1981 the Great Dr. Denton Cooley described this technique as method of preparing woven Dacron aortic grafts to prevent interstitial haemorrhage (1). Dr. Cooley, ameliorated the use of this technique not only to aortic dissection but also to atherosclerotic process affecting the ascending aorta in an attempt to avert cerebral emboli from cross clamping the distal aorta.

If you screen the literature in an attempt to structure a statement on the added risk from performing this technique, you will stumble across many descriptive reporting but not a solid quantification of the risks of distal anastomotic technique versus cross-clamp at the distal ascending aorta. Surely randomisation of patients for the purpose of this technique versus the cross clamp has not been done. Yet, observation studies had been reported numerously in favour of this novel technique with or without added cerebral protection. I'm not sure as to when the indications of this technique have been limited to acute type aortic dissection as my opponent described and elicited in his article, but surely this technique had been liberally used in surgery extending into the arch and proximal descending aorta. It was also recently described by a group from Serbia (2) who innovated further on this technique achieving acceptable

result amongst their cohort of patients.

It's imperative to note that the open distal anastomosis which is routinely done have contributed positively to the evolution of the false lumen in distal unresected aortic segments. It has opened the front on further understanding regarding an excellent visualization and construction of the distal aortic anastomosis, the resection of additional distal tears in the aortic arch, the prevention of injuries of a fragile aortic wall at the clamp site or the avoidance of aortic cross-clamp and an extensive re-approximation of the false lumen. It's also the technique that is aimed at preventing the pressurization of the false lumen and consequently preserving an adequate flow to the neck vessels and cerebral embolism. Although some experiences did not report significantly better neurological outcome with this strategy (3-5). It's quite noted that when there is no atheroma, calcification, or other abnormal situations including aortic dissection in the aorta, the cross-clamp is applied very safely. Yet, this is questionable as to what degree is it safe? There have been no studies that assessed the degree of safety of the alternative technique, but it has been widely adopted by many as it's the approach of safety.

As my opponent described “*the ascending aorta is known to be embryologically different from the aortic arch (6), hence, the remnant of the diseased ascending aorta could dilate afterwards when ascending aortic replacement is undergone with a cross-clamp*” which is why in day and age of preventative healthcare, we need not only think of the pain of the surgeon but on the outcomes of the patient selected.

It's by consequential default that any diseased aorta should be replaced by this open distal anastomosis in the conjunction to methods that provide brain protection.

## Acknowledgments

*Funding:* None.

## Footnote

*Provenance and Peer Review:* This article was commissioned by the editorial office, *Journal of Visualized Surgery* for the series “Innovations in Thoracic Aortic Aneurysm Surgery”. The article has undergone external peer review.

*Conflicts of Interest:* Both authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/jovs.2019.01.02>). The series “Innovations in Thoracic Aortic Aneurysm Surgery” was commissioned by the editorial office without any funding or sponsorship. MB served as the unpaid Guest Editor of the series. The authors have no other conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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doi: 10.21037/jovs.2019.01.02

**Cite this article as:** Bashir M, Harky A. Pro: “Debate: does every ascending aorta repair require at least an open distal anastomosis at the innominate, Or not?”. *J Vis Surg* 2019;5:4.