eComment: Re: Does the technique of distal anastomosis influence clinical outcomes in acute type A aortic dissection?

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Acute type A dissection remains one of the most challenging problems facing cardiothoracic surgeons and is associated with high mortality and morbidity. Preventing progression of dissection in the residual aorta is an important aspect of the patient’s long-term outcome. Therefore, careful obliteration of the false lumen at the distal anastomosis is most important. We agree that a simple and fast procedure can be done under deep hypothermic circulatory arrest. Until now, many surgeons have been afraid to use an open distal anastomosis technique since it carries a risk of neurological complications. Therefore, this study, which showed no significant difference between the two techniques, is of great importance. Until recently, we have in our practice used the technique of open distal anastomosis only in cases where the intimal tear was located distally in the ascending aorta or when the diameter of the true lumen was narrow. In some cases we have had major problems with bleeding from the distal anastomosis. Some patients have been left with a residual patent false lumen in the aortic arch due to the creation of a new intimal tear at the aortic cross-clamp site. Now, we, as well as the majority of surgeons, consider that distal extension of aortic resection at initial operation, careful obliteration of the false lumen, and ideal blood pressure control not only decrease the incidence of aortic rupture in the early postoperative period, but also decrease the incidence of late reoperation [2]. In recent years, our operative approach has consisted of replacement of the ascending aorta with obliteration of the false lumen at its distal part, where possible, or hemi-arch replacement using open distal anastomosis, thus re-establishing normal flow in the descending thoracic true lumen. The right subclavian artery is used routinely for primary arterial cannulation. During open distal anastomosis, our circulation management protocol is to use unilateral antegrade cerebral perfusion (ACP) via the right subclavian artery. Replacement is done under moderate hypothermic circulatory arrest (26 °C) with unilateral antegrade cerebral perfusion. Despite the message of some authors that stroke was more common after a strategy of unilateral selective antegrade cerebral perfusion (SACP) [3], our experience has been the opposite. The key point in the successful use of this method is the functioning circle of Willis. In our study, flow velocity in the middle cerebral artery (examined by transcranial Doppler) was demonstrated to be insignificantly lower in the left cerebral hemisphere in unilateral SACP, and we had no neurologic events.

References