


eComment: Re: Neurochemical markers during selective cerebral perfusion via the right brachial artery

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One-stage ascending aorta and arch replacement at the moment represent 14–50% of the general number of the interventions which are carried out on the proximal aorta. Despite gradual improvement of the results in surgery of the aortic arch, brain injury remains the most feared complication and is a frequent cause of death. Available techniques of cerebral protection include deep hypothermic circulatory arrest alone or in combination with retrograde cerebral perfusion and antegrade selective cerebral perfusion.

We have read with great interest the report of this original and inexpensive technique by Özatik and colleagues [1]. However, in our opinion, direct cannulation of the brachial artery can be difficult in case of a small diameter of the artery. For this purpose, it is probably better to perform a synthetic graft-to-artery anastomosis with graft cannulation, or cannulation of a greater subclavian artery.

We have been applying antegrade cerebral perfusion during aortic arch surgery since 1998. Until now we have experience of 66 such operations. Since 2004 the right-sided unilateral selective antegrade cerebral perfusion (SACP) through the right subclavian artery was predominantly used. Despite the messages of some authors that stroke was more common after a strategy of unilateral SACP [2], we have obtained opposite data. 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 unsignificantly lower in the left cerebral hemisphere with unilateral SACP, and we had no neurologic event. If it is necessary, bilateral SACP can be easily achieved by inserting a cannula in the left carotid artery orifice under direct vision. In our opinion, it is an effective, simple and inexpensive technique.

References
