Reviewer’s report

Title: Different hypothermic and cerebral perfusion strategies in extended arch replacement for acute type A aortic dissection: a retrospective comparative study

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Reviewer: Martin Grapow

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Dong and colleagues present their study comparing two different total arch replacement strategies in Type-A dissection: a modified technique with moderate hypothermic circulatory arrest (29°C) with selective antegrade cerebral perfusion compared to a control technique with unilateral cerebral perfusion via clamping of the brachiocephalic trunc and cooling down to 25°C. Both approaches seemed to be safe, few parameters like time of intubation, time on ICU, Chest tube loss etc. were significantly in favor for the modified technique. Interestingly cross-clamping time was significantly lower in the modified group which might be explained by the more experienced surgeons treating this cohort of patients (which is mentioned as well in the limitations). There is just one question: page 8, line 2-5: how can you maintain pressure in the left radial artery when the left subclavian artery is clamped? Please specify!

In total I think this paper merits publication in the Journal of cardiothoracic surgery. It is well written and an interesting topic.

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