

## **Reconstruction of Innominate Artery During Emergent Surgery for Acute Aortic Dissection – Should We Do It?**

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### **Introduction:**

Acute dissection of ascending aorta is a serious disease with high morbidity and mortality. Urgent operation is mandatory and can be very challenging. Intimal tear can be sometimes found within aortic arch. False lumen can obstruct flow in major neck vessels with devastating consequences. There is always a dilemma, whether or not to reconstruct neck branches during operation? Aim of this study is to present a rare case of innominate artery reconstruction performed during surgery for aortic dissection.

### **Materials and methods:**

This is a case report of 40 years old patient who was admitted with signs of acute aortic dissection type I. MSCT revealed two intimal tears, in ascending aorta and aortic arch. Right subclavian artery was occluded and right carotid was almost occluded by compression of false lumen. We established ECC using left ventricular apex. During cooling patient we reconstructed both carotid and subclavian artery with bifurcated graft. Aortic arch was reconstructed during DHCA which lasted 54 minutes. For proximal aorta we performed Bentall procedure. Patient was fully awake 5 hours after surgery and extubated 20 hours later. Before discharge we performed control MSCT.

### **Discussion:**

Involvement of major neck vessels is not rare in aortic dissection. Usually it is enough to establish antegrade flow in aortic arch but preoperative occlusion or near occlusion of vessels is always big worry. Neck vessel reconstruction can be safely performed during cooling patient to DHCA. This will not increase time of DHCA and low temperature is protecting brain during surgery.

### **Conclusion:**

We believe this operative tactics is a good solution in the case of neck vessel occlusion or near occlusion by aortic wall dissection. It can be safely performed while patient is being cooled down to DHCA and combined with transventricular cannulation can be treatment of choice.