

# MINIMAL INVASIVE ACCESS IN SURGERY FOR ANEURYSMS OF THE ASCENDING AORTA

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**Objective:** Sternal wound infection is a potentially dangerous complication after cardiac surgery, especially when prosthetic material is involved as in replacement of the ascending aorta, and often causes higher mortality, longer hospital stay and increased costs. Therefore we evaluated the feasibility of a minimal invasive approach for a supracoronary replacement of the ascending aorta .

**Methods:** From 10/2006 to 06/2010, nine patients (two female, seven male) mean age  $70.1 \pm 10.7$  years, underwent surgery for aneurysms of the ascending aorta via a partial superior sternotomy. A supracoronary replacement of the ascending aorta using a Dacron prosthesis was performed in all patients. Additionally, the aortic valve was reconstructed in three and replaced in five patients and a PTFE sleeve was implanted, surrounding the aortic arch.

**Results:** Median operation time was 175 minutes and mean aortic cross clamp time was 64 minutes. No conversion to a median sternotomy was necessary. All patients survived surgery. Median intensive care unit stay was 2.0 days. Median intubation time was 17 hours. Postoperatively, one patient suffered from atrioventricular block grade III. 30-day and 6 months survival rate was 100%. No infection was observed within 3 months after operation.

**Conclusions:** Minimal invasive access in surgery for aneurysms of the ascending aorta is an applicable alternative to the standard median sternotomy. The outcome of this small population encourages the application of this approach for supracoronary replacement of ascending aorta.

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