

**Acute and Long-Term Outcome after Catheter Ablation of Supraventricular Tachycardia in Patients after the Mustard or Senning Operation for D-Transposition of the Great Arteries**

*Hessling G., Wu J., Ammar S., Reents T., Fichtner S., Zhu P., Estner H., Jilek C., Hess J., Deisenhofer I.  
German Heart Center, Munich, Germany*

**Background:** Data about the long-term outcome of catheter ablation in patients (pts) with D-Transposition of the great arteries (d-TGA) after the Mustard/Senning operation are scarce. **Methods:** We retrospectively evaluated the 27 pts (mean age  $28.7 \pm 6.7$  years, 9 females) after a Mustard (n=16) or Senning (n=11) procedure who underwent ablation for supraventricular tachycardia at our institution from January 2004 to July 2010. A 3D mapping system (Carto) was used in all cases (in combination with remote magnetic navigation (RMN) in 14 cases). Tachycardia mechanism was atrial tachycardia (AT) including intraatrial reentrant tachycardia/focal atrial tachycardia or atrioventricular node reentrant tachycardia (AVNRT). Acute ablation success was defined as termination of AT or non-inductivity of AVNRT after ablation. Follow-up was available 3, 6 and 12 months after ablation and yearly thereafter. Long-term success was defined as freedom from tachycardia.

**Results:** In the 27 pts (AT n=22, AVNRT n=2, AT+AVNRT n=3), 35 procedures were performed (one procedure n=20, two n=6, three n=1). Overall 36 tachycardia forms were found. Tachycardia mechanism included AT (n=31) and AVNRT (n=5). Tachycardia was ablated manually (n=27) or using RMN (n=9) with an acute success in 31/36 (86%) tachycardias. After the first ablation, recurrence occurred (AT n=8; AVNRT n= 0 pts). After a mean of 1.3 ablations and a mean follow-up time of  $29.1 \pm 24.5$  months, 26/27 (96.2%) patients were free from AT/AVNRT. Acute and long-term success in the last 9 procedures (during the years 2008-2010) using exclusively RMN was 100%.

**Conclusions:** Catheter ablation of AT or AVNRT in patients after the Mustard or Senning operation for d-TGA has a high acute success rate and with the use of RMN long-term results are excellent after a single ablation.