

## MP4-2

### Hybrid therapy of anti-tachycardia pacing and catheter ablation of atrial tachycardia for patients with complex congenital heart disease

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**Background:** Device therapy of bradycardia may be required for patients with congenital heart disease (CHD) after surgery. Additionally, such patients may have complicated substrates of atrial tachycardia (AT) resistant to antiarrhythmic drugs and catheter ablation (CA).

**Objectives:** The aim of this study is to evaluate the clinical outcomes of hybrid therapy with anti-tachycardia pacing (ATP) and CA for AT in patients with complex CHD.

**Methods:** Twenty-four CHD patients after cardiac surgery (two-ventricular repair in 6, Fontan palliation in 12, atrial switch operation in 4, and palliative procedure in 2) with AT and pacemaker-indicated bradycardia were investigated retrospectively.

A pacemaker was implanted in 23 patients for sick sinus syndrome in 18 and atrioventricular block in 5 and an implantable cardioverter defibrillator in 1 patient for ventricular tachycardia at the age of 9-59 years old. CA was performed in all patients and the acute success (no inducible AT) rate was 67% (16/24).

**Results:** Appropriate ATP and successful termination of AT was observed in 38% (9/24) during the average follow-up period of 4.0 years after implantation. However, ATP did not start in 25% (6/24) because of slow AT in 4 patients and of 1:1 atrioventricular conduction during AT in 2 patients.

**Conclusion:** Although CA was not always successful for complex CHD, an automatic atrial ATP option showed effective additional treatment for refractory AT. Further blush-up of the ATP programming should be required.