Catheter ablation for atrial fibrillation
– effects on rhythm, symptoms and health-related quality of life

av

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Akademisk avhandling

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**Abstract**

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**Background:** AF ablation is an increasingly used treatment in patients with AF to improve patient-reported outcomes (PROs). Atrioventricular junction ablation (AVJA) is a palliative treatment option in therapy refractory AF that improves PROs but renders the patient pacemaker dependent.

**Aims:** To evaluate rhythm control and PROs before and up to two years after AF ablation. To analyze the long-term incidence of and predictors of hospitalization for HF and all-cause mortality in patients who underwent AVJA and right ventricular pacing.

**Methods and Results:** Fifty-four patients underwent AF ablation and both continuous rhythm monitoring via an implantable loop recorder (ILR) and intermittent rhythm monitoring three, six, 12 and 24 months after ablation. 76% of patients had at least one AF recurrence, of whom 24% were only detected by ILR. One third of symptom recordings did not show AF. The AF-specific AF6 scores, physician-assessed EHRA symptom class and both SF-36 summary scores all improved significantly from before to two years after ablation. There was a weak correlation between the change in AF6 scores and EHRA class from before to six and 12 months but not to 24 months after ablation. Responders to ablation (AF burden < 0.5%), reached age- and sex-matched norms in all SF-36 domains, but non-responders only in social functioning and MCS. All AF6 scores showed at least moderate improvement in both responders and non-responders. Higher AF burden was independently associated with poorer PCS and AF6 scores. In 162 patients who underwent AVJA, hospitalization for HF occurred in 20% of patients (two-year cumulative incidence 9.1%) and 22% died (two-year cumulative incidence 5.2%) during a median follow-up of five years. QRS ≥ 120 ms and left atrial diameter were independent predictors of hospitalization for HF, and hypertension and previous HF of death.

**Conclusions:** Continuous rhythm monitoring was superior to intermittent monitoring. The AF-specific AF6 was more sensitive to changes related to AF burden after AF ablation than both EHRA class and the SF-36. The long-term hospitalization rate for HF and all-cause mortality was low after AVJA.

**Keywords:** Atrial fibrillation, catheter ablation, symptoms, quality of life.

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