

# EFFICACY OF TRANSCATHETER ABLATION FOR ATRIAL FIBRILLATION IN HYPERTROPHIC CARDIOMYOPATHY; A SYSTEMATIC REVIEW AND META ANALYSIS

## **Abstract**

Background and purpose:

Approximately 20-25% of the patients with hypertrophic cardiomyopathy (HCM) develop atrial fibrillation (AF) during the clinical course of the disease, and is associated with a deterioration of clinical status. Catheter Ablation (CA) of symptomatic AF is an established therapy. We conducted a systematic review and meta-analysis of the available data to evaluate the effectiveness and safety of CA for AF in patients with HCM.

Methods

Four databases were accessed to identify studies describing outcomes of CA of AF in HCM patients after the index procedure. Data from 22 studies were included with a total of 1298 patients with a mean age ranging from 48.7 to 65 years. Data extracted were: 1) Single procedure outcome 2) Multiple procedure outcome 3) Outcomes such as Heart failure hospitalization and thromboembolic events.

Results

Freedom from AF/AT after a single procedure at the latest follow up was reported in 426 out of 1125 patients, giving a pooled proportion of 37.9% (95% CI 33.39-42.48%, I<sup>2</sup> = 59.3%). Multiple procedure success rate was 52% (95% CI = 45% to 58%). The rate of heart failure hospitalization after CA was 14% (95% CI= 3.8% to 30.9%). There was 4.8% occurrence of thromboembolic events post CA (95% CI= 1.9% to 9%, I<sup>2</sup>= 75.1%)

CONCLUSION:

Catheter ablation of AF in patients with HCM is an excellent strategy, although more repeat procedures are required to maintain the stable sinus rhythm.