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Arrhythmias and Clinical EP

CRYPTOGENIC STROKE AND UNDERLYING ATRIAL FIBRILLATION: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROL TRIALS

Poster Contributions
Poster Hall B1
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Background: Recent studies have shown that prolonged rhythm monitoring results in increased detection of atrial fibrillation (AF) in patients with cryptogenic stroke (CS). We performed a systematic review and meta-analysis of all the randomized control trials (RCTs) that used prolonged rhythm monitoring strategy in patients with CS.

Methods and Results: Four RCTs (enrolling 1153 patients) were identified by database searches. Baseline characteristics were similar in all the RCTs. The median follow up duration was 55 days (Range 7 days to 36 months). Pooled odds ratio (OR) of identifying AF was calculated using Peto fixed effects model. Heterogeneity was assessed using I2. There was no heterogeneity among the included studies. Longer monitoring with either insertable cardiac monitor (1 trial) or external wearable monitors (3 trials) resulted in increased detection of AF (OR 5.01, 95% CI 3.39 - 7.42; $p < 0.00001$) compared to control (Figure 1) and has led to increased use of anticoagulant therapy (OR 2.63, 95% CI 1.61 - 4.30; $p < 0.0005$) among these patients. Sub group analyses revealed incremental yield of prolonged rhythm monitoring for AF detection.

Conclusion: The results of this study suggest that prolonged rhythm monitoring results in increased detection of AF in patients with CS. However, the implications of increased AF detection on clinical outcomes are not clear.

Figure 1: Forest plot shows significantly increased detection of AF with longer monitoring