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LEFT ATRIAL APPENDAGE OCCLUSION DEVICE AND NOVEL ORAL ANTICOAGULANTS VERSUS WARFARIN FOR STROKE PREVENTION IN NON-VALVULAR ATRIAL FIBRILLATION: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROL TRIALS

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: What's Going On in the World of Atrial Fibrillation?
Abstract Category: 4. Arrhythmias and Clinical EP: AF/SVT
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Background: Different strategies have been evaluated for stroke prevention in patients with non-valvular atrial fibrillation (NVAF). We sought to evaluate the efficacy and safety of different approaches compared to standard therapy with warfarin.

Methods: We conducted electronic database searches of phase III randomized controlled trials (RCT). Efficacy outcomes were stroke or systemic embolism (SSE) and all-cause mortality. Safety outcome was major bleeding or procedure related complications. A random-effect model was used to obtain a summary effect. Odds ratios (OR) and 95% confidence intervals (CI) were computed using the Mantel-Haenszel method.

Results: Eight RCTs were included (n=80,684 patients). The comparison groups were novel oral anticoagulants (NOAC), and Watchman left atrial appendage occlusion device (Device) against warfarin. There was a significant difference favoring NOAC for SSE (OR 0.83, 95% CI 0.72-0.97; p=0.01), all-cause mortality (OR 0.88, 95% CI 0.83-0.93; p<0.001) and safety outcomes (OR 0.79, 95% CI 0.64-0.97; p=0.026) compared to Device. No evidence of significant publication bias was found.

Conclusion: NOAC is superior to warfarin and Device when compared to warfarin as standard therapy for stroke prevention in NVAF. Device is a reasonable non-inferior alternative to warfarin for stroke prevention when anticoagulation is contraindicated.