Abstract

Introduction: Patients with atrial fibrillation (AF) are commonly referred to electrophysiologists (EP) for management, which may include radio-frequency catheter ablation (RFA), drug therapy or both. We sought to determine whether EPs who perform AF-RFA are more likely to refer patients for this procedure compared to EPs who do not do this procedure.

Methods: The study was performed in the outpatient arrhythmia clinic of a Canadian tertiary care University hospital which performs 20 AF-RFA procedures per month. Patients referred for management of AF were initially seen by one of 5 EPs (3 performing AF-RFA and 2 who did not). All 5 EP practice in a single group. Assignment of physicians to consecutive patients was performed by randomization of physicians. The primary outcome measure was whether or not the patient was referred for AF-RFA at the time of the initial consultation.

Results: There were 128 patients seen for consultation during 10 months; 72(56%) by EP who performed AF-RFA. Patients who were seen by an AF-RFA performing EP were similar to those seen by a non-RFA EP regarding baseline characteristics including age, history of diabetes or hypertension. They had similar CHADS2, and HAS-BLED scores, similar rates of prior anti-arrhythmic drug failures and previous cardioversion. Of the patients seen by an AF-RFA performing EP, 30 (42%) were referred for ablation compared to 5 (9%) who were seen by EP who did not perform AF-RFA (p<0.0001). Patients referred for ablation by AF-RFA EPs were older (59 vs 50 years, P= 0.8), had larger LA diameter (40 vs. 37mm P = 0.6) and were less likely to have failed more than 1 anti-arrhythmic drug prior to consultation (80 vs. 100% P= 0.01) than patients referred by non-AF-RFA, EPs.

Conclusions: In a randomized evaluation, EPs performing AF-RFA were 4 times more likely to refer a patient for RFA than EPs not performing the procedure. This difference occurred even though the participating physicians shared a group practice at an academic university hospital. These data indicate that physician bias has a major impact on clinical decision-making and that there is a need for tools to make clinical decisions more consistent.