Trends Study - T. Glotzer

- The TRENDS trial was a prospective, observational study enrolling patients with >1 stroke risk factor receiving pacemakers or defibrillators that monitor atrial tachycardia (AT)/AF burden (defined as the longest total AT/AF duration on any given day during the prior 30-day period). Annualized thromboembolic (TE) rates were determined according to AT/AF burden subsets: zero, low (<5.5 hours [median duration of AT/AF]), and high (>5.5 hours). A multivariate Cox model provided hazard ratios including terms for stroke risk factors and time-varying AT/AF burden and antithrombotic therapy. Patients (n=2486) were followed for a mean of 1.4 years. Annualized TE rate was 1.1% for zero, 1.1% for low, and 2.4% for high burden subsets of 30-day windows. Compared with zero burden, adjusted hazard ratios (95% CIs) in the low and high burden subsets were 0.98 (0.34 to 2.82, P=0.97) and 2.20 (0.96 to 5.05, P=0.06), respectively. Conclusions—The TE rate was low compared with patients with traditional AF with similar risk profiles. AT/AF burden >5.5 hours on any of 30 prior days appeared to double TE risk.

- The incidence of newly detected AF (NDAF) was additionally analyzed in 2 subgroups of patients. The first group were patients with NO prior TE event, NO history of AF, NO anticoagulation use, and NO antiarrhythmic drug use; The second group were patients with NO hx of AF, NO anticoagulation use, and NO antiarrhythmic drug use but who HAD a TE event. For the first group, NDAF was identified in 416 /1,368 (30%) during a follow-up of 1.1 + 0.7 years. For the second group, NDAF was identified in 45/163 patients (28%) over the same mean follow-up.