Role of long-term continuous cardiac monitoring in oral anticoagulation management of patients with known atrial fibrillation

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Background: Monitoring atrial fibrillation (AF) with an insertable cardiac monitor (ICM) provides objective data for clinicians to make decisions on oral anticoagulation (OAC) management, based on individual risk profiles. Whether ICM data is being used for that purpose has not been widely explored.

Purpose: To show the impact of AF burden measured by an ICM on OAC treatment initiation and discontinuation in patients with known AF.

Methods: Patients from the prospective, ongoing, multi-center Reveal LINQ Registry monitored for AF management, or pre- or post-ablation monitoring were eligible. Follow-up was scheduled every 6 months for up to 3 years. Patients were excluded if they had no AF data available within the last 6 months of follow-up (FU), or less than 6 months of FU and no change to their OAC treatment compared to baseline. AF burden was defined as the percentage of time in AF 6 months prior to last FU, excluding the first 3 months post-ablation for patients who had an ablation.

Results: The analysis included 225 patients (65 ± 10 years, 72% male, mean CHA2DS2-VASc score 2.1 ± 1.4) monitored with an ICM for 21.8 ± 7.9 months. At baseline, 164 (73%) were taking OAC therapy, 147 (65%) had a history of paroxysmal AF and 79 (35%) had persistent AF. Forty percent of patients had a history of atrial ablation prior to ICM insertion and 37% had ≥1 AF ablation procedure after ICM. Patients were grouped according to OAC status at baseline, CHA2DS2-VASc score and AF burden (Figure: bars show percentage of patients with a change in OAC status during monitoring). Patients at high risk of stroke and AF burden >0.5% were more likely to initiate OAC therapy, whereas patients with higher AF burden were less likely to discontinue OAC, regardless of their risk score. Among those with no AF burden detected during the last 6 months of follow-up and on OAC at baseline, approximately half discontinued OAC, whereas 1/3 of patients with high risk score had initiated OAC, despite having no AF detected.

Conclusion: Our results derived from real-world practice show that AF detected and quantified by an ICM influences OAC therapy management in patients with known AF. Many patients with a low CHA2DS2-VASc score and no AF or low AF burden have had OAC therapy discontinuation, whereas a high proportion of patients with high AF burden have initiated OAC, regardless of their risk score.

Abstract Figure. OAC according to risk and AF burden