Main determinants of physician-driven amiodarone discontinuation in clinical practice

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Background: Amiodarone is the most prescribed antiarrhythmic drug, but drug-related side effects sometimes result in drug discontinuation. Not infrequently, physicians discontinue amiodarone without a medical reason. We explored the determinants of such permanent drug discontinuation.

Methods: A single-centre, longitudinal study included consecutive patients newly prescribed or already taking amiodarone when first seen in our health centre from January 2013 to December 2017. Baseline data were retrieved from the hospital electronic database and patients were scheduled for a follow-up visit in January to March 2019.

Results: Of 1212 patients taking amiodarone (mean age 64.2 ±11.2 yrs; female n= 358, 29.5%; median follow-up 22.5 months), the drug was permanently discontinued in 489 (40.3 %), see Figure. On univariate Cox regression analysis, female sex (HR 1.55; 95%CI 1.0-2.3; p = 0.032), non-multimorbidity (2.9; 2.0-4.3; p < 0.001), LV EF (1.0; 1.0-1.1; p < 0.001), NOAC therapy (1.9; 1.2-3.0; p = 0.003) and AF ablation (2.7; 1.5-4.6; P < 0.001) were associated with amiodarone discontinuation. Age (0.9; 0.9-0.9; p < 0.001), CAD (0.3; 0.2-0.5; p < 0.001), HF (0.5; 0.3-0.9; p = 0.020), ventricular arrhythmias (0.1; 0.0-0.3; p < 0.001), stroke (0.2; 0.1-0.9; p = 0.045), CKD (0.5; 0.3-0.9; p = 0.011), ICD (0.1; 0.0-0.6; P = 0.014), LV diastolic (0.9; 0.9-0.9; p = 0.001) and systolic diameter (0.9; 0.9-0.9; p < 0.001), polypharmacy (0.5; 0.3-0.7; P < 0.001), VKA therapy (0.6; 0.4-0.9; p = 0.027), aspirin (0.57; 0.4-0.9; p = 0.011), loop diuretic (0.5; 0.3-0.7; p < 0.001), spironolactone (0.4; 0.2-0.7; p < 0.001) and statin (0.6; 0.4-0.9; p = 0.009) therapy were associated with drug continuation. Multivariable risk factors for amiodarone discontinuation are showed in Table.

Conclusion: Study showed that within the first two years of treatment, despite persistent indication, amiodarone was discontinued in 1 out of 10 patients in the absence of side effects, mostly in younger patients with less comorbidities, which may not always be justified. There is a need for qualitative research to elucidate the reasons for such physicians' decisions.

Table.

Multivariable Cox Proportional HAZARD Regression analysis of permanent Amiodarone discontinuation due to physician decision			
Variable	HR	95% CI	P value
Age	0.970	0.95-0.99	0.003
VT/VF/electrical storm	0.139	0.04-0.45	0.001
VKA therapy	0.598	0.38-0.94	0.026
Ablation of AF	2.539	1.38-4.69	0.003
Number of comorbidities ≤3	2.024	1.26-3.27	0.004

VT: ventricular tachycardia; VF: ventricular fibrillation.

Abstract Figure.