Pharmacological Cardioversion with ‘Ibutilide’ in Atrial Tachyarrhythmias: Safety and Efficacy
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Background: Ibutilide is being increasingly tried as an agent for achieving acute pharmacological cardioversion of atrial tachyarrhythmias (AT). However, there is dearth of real-world data about the safety and efficacy of this drug.

Methods: We performed a prospective observational study to characterise the patients undergoing successful cardioversion of AT with Ibutilide administered as per the institutional protocol.

Results: Out of 68 patients with ATs, cardioversion was attempted in 33. Successful cardioversion to sinus rhythm was achieved in 23 (69%) patients. The underlying cardiac rhythm was atrial flutter (AFL) in 13 (39%), atrial fibrillation (AF) in 18 (55%), focal AT in 2 (6%) patients. Diabetes, hypertension, rheumatic heart disease, congenital heart disease, ischaemic heart disease, post-operative, moderate/severe mitral regurgitation, LV dysfunction (LVEF <55%) was noted in 15 (42%), 15 (42%), 4 (12%), 2 (6%), 7 (21%), 11 (33%), 9 (27%), 25 (75%). The mean duration of AT was 5 ± 3 months. Paroxysmal and persistent AT were noted in 23 (66%) and 10 (30%) respectively. Successful cardioversion was achieved with the first bolus and second bolus in 18 (54%) and 5 (15%) respectively. Six patients developed frequent PVCs/NSVT which subsided over time with IV magnesium. TdP was observed in one patient which was successfully cardioverted with DC. No deaths were seen during the study. The predictors of success were non-valvular aetiology, presence of AFL, ongoing antiarrhythmics, lesser mean duration of AT.

Conclusions: Ibutilide can be safely administered for acute pharmacological cardioversion of ATs in a critical care setting.

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Predictors of Health Care Resource Utilisation in AF: The REVIEW AF Study
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Background: Atrial fibrillation (AF) is a prevalent condition associated with significant morbidity and mortality. Hospitalisations are the main driver of health care resource utilisation in AF. The aim of this study is to characterise predictors of repeat emergency department (ED) presentations and hospital admissions in a cohort of individuals with AF.

Methods: Individuals presenting to the ED of three major tertiary centres in Adelaide, South Australia from March 2013 to March 2014 with a primary diagnosis of AF, were screened by electronic health record to identify predictors of repeat presentations.

Results: The study cohort comprised 437 individuals with an AF related index presentation. Mean age was 69 ± 15 years and 49.9% were male. Individuals were followed for a mean of 3.7 ± 0.4 years to determine reasons for re-presentation to hospital. There were 2304 repeat unplanned presentations during follow up. Multivariate analysis did not identify any demographic or clinical factors predictive of re-presentation to hospital. Individuals given non standardised advice to manage future AF episodes was associated with a significant increase in the risk of repeat ED presentations (Odds Ratio [OR] 6.7, 95% confidence interval [CI] 2.4–18.3; p < 0.0001), and hospital admissions for AF (OR 3.7, 95% CI 1.41–9.66; p = 0.008).

Conclusions: A hospital presentation with a primary diagnosis of AF identifies individuals who pose significant health care burden. Non standardised advice to manage future episodes of AF is associated with an increased risk of ED presentation and hospital admission for AF. Further research is required to understand this finding.

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