LONGTERM FOLLOW-UP OF MYOTONIC DYSTROPHY TYPE 1 PATIENTS WITH PACEMAKER AND IMPLANTABLE CARDIOVERTER-DEFIBRILLATORS: A SINGLE UK SPECIALIST CENTRE EXPERIENCE

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Introduction Cardiac conduction disease and sudden cardiac death is known to be associated with Myotonic Dystrophy type 1 (MD). Patients often require device implantation to prevent sudden cardiac death. Practice for cardiac implantation can be varied throughout national and international centres. Objective To define the rate and type of device implantation, rate of pacing and outcome in MD patients managed in a single specialist centre. Method Retrospective analysis of pacing and outcome data on consecutive MD patients managed at Specialist Centre in the UK between 2011 and 2021. Data was retrospectively analysed using electronic patient notes, including pacemaker follow-up reports. Results 24/119 MD patients were implanted with a cardiac device. Male:Female 13:11. At implant, patients had a mean age of 56 (95% CI 52 to 59), mean PR interval 217 ms (95% CI 203 to 230), mean QRSd 123 ms (95% CI 109 to 137). Devices implanted included 16 DDDR, 4 CRT-D, 1 CRT-P, 1 ICD and 2 VVI pacemakers. In the Cardiac devices vs Non- cardiac device group 10/24 (43%) vs 12/95 (13%) died, P=0.001. Mean survival from time of implant to death was 62 months (95% CI 19 to 104). 7 (88%) patients who died in the devices group had evidence of progressive conduction disease prior to death, indicated by progressive increases in mainly atrial pacing. No sudden cardiac deaths were recorded during follow up. 1 ventricular Tachycardia treated by ICD therapy.

Conclusion In our cohort of myotonic dystrophy patients 20% required device implantation. Pacing indication remains varied. Mean survival post device implantation is high. Despite sudden cardiac death being prevented through appropriate cardiac device implantation, the risk of mortality remains high in patients with myotonic dystrophy and conduction disease. A multidisciplinary approach is required to provide the best outcome for these patients.

Conflict of Interest none

ATRIAL FIBRILLATION VIRTUAL WARD – A GLIMPSE INTO THE FUTURE OF AF CARE

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Background Atrial fibrillation (AF) hospital admissions represent significant AF related treatment costs nationally. In the year 2019–2020 our hospital reported 1,333 admissions with a primary diagnosis of AF, with a 10% annual increase. A virtual ambulatory AF ward providing multidisciplinary care with remote hospital-level monitoring could reshape the future model of AF management.

Methods An AF virtual ward was implemented at our UK tertiary centre, as a proof-of-concept model of care. Patients admitted with a primary diagnosis of AF satisfying the AF virtual ward (AFVW) entry criteria (i.e., haemodynamically stable, HR<140bpm with other acute conditions excluded) were given access to a single lead ECG recording device (AliveCor), a Bluetooth integrated blood pressure machine and pulse oximeter with instruction to record daily ECGs, blood pressure readings, oxygen saturations and fill an online AF symptom questionnaire via a smart phone or electronic tablet. Data were uploaded to an integrated digital platform (Dignio) for review by the clinical team who undertook twice daily virtual ward rounds. Medication adjustment was arranged through the hospital pharmacy. Data was collected prospectively for patients admitted to the AF virtual ward between 31 January and 11 March 2022. Outcomes included length of hospital stay, admission avoidance and re-admissions. Re-admission avoidance was assessed using the index admission criteria as parameter for re-admission likelihood. Patients’ satisfaction was assessed using the NHS family and friends’ test (FFT).

Results Over the 6-week period a total of 14 patients were enrolled. One patient was unable to be onboarded because of technology related anxiety with 13 patients onboarded to the virtual ward. 30.7% (n=4) did not have smart phones and were provided with electronic tablets. The age on admission was 64±10 years (mean±SD) with the oldest at 78 years of age. All patients were in AF with a mean heart rate of 122±24 bpm. One patient was onboarded directly from pacemaker clinic and hence hospital admission was completely avoided, and 5 re-admissions were avoided for 3 patients. One patient required readmission due to persistent tachycardia requiring acute cardioversion. The FFT yielded 100% positive responses among patients.

Conclusion This proof-of-concept is a first real world experience of a virtual ward for hospital patients with fast AF. It demonstrates a promising new telemedicine-based care model...