Introduction

Brugada syndrome (BrS) is an inherited channelopathy which is usually caused by mutation in the SCN5A gene. The coved ST-segment elevation in the right precordial leads is diagnostic and can predispose to polymorphic ventricular tachycardia (VT) and sudden death (figure 1). In Ireland, BrS cases with secondary prevention implantable cardioverter defibrillators (ICDs) are unable to drive. This recommendation was based on the consensus statement of the European Heart Rhythm Association in 2009. However, increasing data suggests that educating patients to avoid heavy meals and alcohol before sleep, prompt treatment of pyrexia, and avoid certain drugs greatly reduces risk of VT. In addition, Quinidine and more recently epicardial ablation have proven effective. Furthermore, our threshold to implant a device is higher, due to a clearer definition of arrhythmogenic syncope and the reduced use of programmed electrical stimulation (PES). These developments prompted a review of current national guidelines, and our own data.

Methods

Retrospective analysis of BrS patients who attend an adult inherited cardiac conditions clinic (Tallaght University Hospital and Mater Misericordiae University Hospital). Local records and the national device database Heart rhythm Ireland were utilised.

Results

A total of 10 BrS patients with ICDs were identified. Mean age was 50 years, and 7 were male. One case underwent implantation for primary prevention due to high-risk features. Regarding the secondary prevention cohort; 2 had survived a cardiac arrest, 3 had syncope without documented arrhythmia, and 4 had non-sustained VT or a positive PES. A subcutaneous ICD was utilised for 2 patients. Mean follow up time since implant was 7 years and 3 months. Defibrillation therapy was required for 2 patients, each of which was appropriate and occurred during sleep. Both have been free of ventricular arrhythmias since commencement of Quinidine or having undergone an epicardial ablation.

Conclusion

BrS secondary prevention ICDs have rarely been performed in Ireland. In terms of risk when driving, ventricular arrhythmias only occurred during sleep, a pathognomonic trigger in BrS. Given the improved understanding of BrS and the development of effective treatments, several countries have removed the indefinite driving restriction for a category one license. Our national data is consistent with this trend and can now be included in a review of Irish driving recommendations.