PP087 CARDIAC RESYNCHRONISATION THERAPY WITH DEFIBRILLATOR (CRT- D)

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INTRODUCTION

We present a case of a patient on Cardiac Resynchronisation Therapy (CRT-D) in Ventricular arrhythmia.

CASE REPORT

A 59-year-old man presented to IJN with vomiting and diarrhoea associated with multiple DC shocks from his implantable cardioverter defibrillator (ICD). He has ischemic dilated cardiomyopathy with a poor left ventricular ejection fraction. He had a Cardiac Resynchronisation Therapy with ICD (CRT- D) implanted few months ago.

This is his first of such experience and he complained of being `shocked' few times at home prior to arrival to the ED. He was alert, orientated and normotensive. Cardiac monitoring showed stable ventricular tachycardia (VT). The CRT-D delivered a couple of shocks whilst he was in ED. He was put on oxygen, loaded with amiodarone and given analgesia. Analysis of his CRT-D showed three episodes of electrical shocks delivered for Ventricular fibrillation. The triggering factor for these ventricular arrhythmias were hypokalemia and hypomagnesemia secondary to the vomiting and diarrhoea. After the infusion of amiodarone and correction of the electrolyte imbalances, patient became electrically and hemodynamically stable.

DISCUSSION AND CONCLUSION

In patients with left ventricular dysfunction, right ventricular pacing alone can lead to significant intraventricular dyssynchrony and precipitate heart failure. CRT refers to simultaneous pacing of both right ventricle (RV) and left ventricle (LV), resulting in improved cardiac contractility. CRT is indicated when symptoms of congestive cardiac failure (despite optimal medical therapy) are associated with severe left ventricular dysfunction (EF < 35%) and prolonged QRS interval. With disease progression of heart failure, ventricular arrhythmias are common and may lead to death. In heart failure patients at risk of developing arrhythmias, CRT can be combined with a defibrillator (CRT-D), and can function both as a biventricular pacer and as an ICD. CRT has shown to improved quality of life, decrease heart failure symptoms, and decrease mortality.