Analysis of ICD therapies in patients with Hypertrophic Cardiomyopathy.

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AIM

Patients suffering from Hypertrophic cardiomyopathy (HCM) are at an increased risk of sudden cardiac death (SCD). The aim of this study is to retrospectively analyse the risk of SCD and the ICD therapies delivered.

Methodology

CVIS, Electronic case summary and pacemaker les were used for data collection. The HCM Risk-SCD calculator was used appropriately to calculate risk of SCD at 5 years.

Results

Locally there are approximately 150 HCM patients being followed-up at the Inherited Cardiomyopathy Clinic, of which 19 had an ICD inserted. 69% were males and 31% were females. The mean age at device implantation was 50 years. ICDs were inserted in 2 patients <16years of age, in 1 patient with Fabry's disease and in 3 patients for secondary prevention. For the other 13 patients, the HCM Risk SCD calculator was used to calculate risk of SCD at 5 years. 5 patients had >6% risk of SCD at 5 years meaning that ICD insertion should be considered whereas 8 patients had 4-6% risk of SCD at 5 years meaning that ICD insertion may be considered. Cardiac MRI was used in most borderline cases to decide regarding ICD insertion. 15.7% (n=3) had appropriate therapies for VT; n=2 had SCD risk>6% and n=1 had SCD risk 4-6% (SCD risk 5.92%) at 5 years. 15.7% (n=3) had inappropriate therapies for AF. One patient received anti-tachypacing (ATP) and shock therapies whereas the other two patients received only ATPs. All patients are still alive up to 5 years of follow-up. 15.7% (n=3) had complications related to device insertion including upper limb thrombosis, upper limb swelling and lead dislodgement.

Discussion

ICD therapies are effective in terminating ventricular arrhythmias leading to SCD in patients with HCM. Identifying patients at risk of SCD is still an ongoing challenge.

Conclusion

19 patients with HCM have had an ICD inserted. 15.7% have received appropriate therapies for VT.