Abstract: P1492

10-year trends in the use of catheter ablation for the treatment of VT versus other ablation procedures and PCI for the treatment of IHD

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Topic(s):
Ablation of Ventricular Arrhythmias

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Aims
Catheter ablation of ventricular tachycardia (VT) has emerged as a useful adjuvant therapy to reduce the symptomatic burden and recurrences in patients with and without structural heart disease who are refractory to antiarrhythmic therapies. We sought to examine temporal trends in procedural numbers as compared to other common cardiovascular procedures with established treatments, namely percutaneous coronary intervention (PCI) for coronary artery disease (CAD) and atrial fibrillation (AF) ablation.

Methods
A retrospective review of procedural numbers for VT ablations, AF ablations and PCI was performed from 2008/09 to 2016/17 using two data sources: the national Institute of Health, Welfare and Aging and the national Medicare database. Linear regression models were fitted to compare the trends in population-adjusted procedural numbers over the 10-year period. There was a 0.9% per year population-adjusted decline in all cardiovascular procedures over the 10-year period. PCI demonstrated a 1.3% and 1.8% per year population-adjusted increment from both the IHW and Medicare database sources, respectively. All ablation procedures had growth rates of 7.0% and 10.4%/year for IHW and Medicare database sources, respectively. AF ablations showed a 12.7% and 11.7% per year population-adjusted increment from the IHW and Medicare database sources, respectively. VT ablations showed a 18% and 12.7% per year population-adjusted increment for IHW and Medicare database sources, respectively. In a sub-analysis of VT ablations in patients > 55 years of age, there was a 16.5% per year population-adjusted growth rate using the IHW database.

Conclusion
Catheter-based VT ablation for patients with and without structural heart disease has increased exponentially in Australia over the past decade, with a growth rate that surpasses PCI for CAD and other common catheter ablation procedures including AF ablation. As most tertiary centres have either an established or emerging VT ablation program, these data highlight the provision of additional funding and infrastructure resources to match the increasing demand of the impending rise VT ablation procedures.
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