LONG-TERM MORTALITY RISK IN POST-MYOCARDIAL INFARCT PATIENTS RESUSCITATED BY A WEARABLE CARDIAC DEFIBRILLATOR

ACC Poster Contributions
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Background: Post-myocardial infarction (MI) patients with low ejection fraction (EF) can be protected from sudden death due to ventricular tachycardia/fibrillation (VT/VF) immediately post-MI with a wearable cardiac defibrillator (WCD). Outcomes after defibrillation during this early post-MI period are not well known, and we sought to address this question in patients that were appropriately shocked by the WCD. Although the sudden death rate was highest in VALIENT during the first month, those resuscitated had reasonable longer-term survival.

Methods: A 2005 to 2010 database containing defibrillation and device records of commercial use patients (all patients consented to data use for quality and research purposes) was retrospectively analyzed for patients prescribed WCD following discharge of an acute MI and additionally had at least one treatment for VT/VF. The social security death index was used to determine mortality after WCD use. All VT/VF within 24 hours of the initial arrhythmia were considered a single event.

Results: Ninety-two immediate post-MI patients received 199 shocks for VT/VF within 101 events. Mean age of patients was 63.5±12.0 years, and 78.5% were male. Patients received their first shock, on average, 25 ± 38 days after WCD start. Eighty-four patients (91%) survived to conscious arrival for medical care, and 59 (70% of survivors) received an implantable cardiac defibrillator (ICD) following the WCD use. Of those surviving the first event, 27 patients (32%) died at a later time (average 217±333 days post-shock). Follow-up time for those that survived was 464±403 days. Thirty-day and 90-day survival after resuscitation was 87% and 82%, respectively. Age and sex were not related to overall survival.

Conclusions: Our data shows that the WCD can protect the immediate post-MI patient from VF/VF during the recommended 40-day waiting period prior to evaluation for ICD implantation. Survival post-WCD shock was good, and comparable to VALIENT.