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SUSTAINED VENTRICULAR ARRHYTHMIAS ADD PROGNOSTIC VALUE INDEPENDENT OF UNDERLYING RISK IN STEMI PATIENTS UNDERGOING PRIMARY PERCUTANEOUS CORONARY INTERVENTION

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Background: The association of ventricular tachycardia/fibrillation (VT/VF) with mortality in STEMI patients (pts) undergoing primary PCI may vary with baseline pt risk. Thus, while VT/VF may be associated with higher mortality in pts that have high-risk baseline features, this arrhythmia may not impact outcomes in the low-risk cohort undergoing primary PCI.

Methods: We studied 5257 pts with STEMI presenting for primary PCI from the APEX-AMI trial. We evaluated the association of VT/VF with outcomes among pts with varying underlying risks for 90-day death estimated using baseline variables and Cox model.

Results: VT/VF occurred in 4.1% (74/1735), 5.1% (92/1788) and 7.2% (125/1734) pts in the low-, intermediate- and high-risk tertiles of 90-day predicted death, respectively. 90-day mortality was 2.8 fold higher in the high-risk pts compared with the low-risk group. Almost all outcomes were significantly worse in pts with VT/VF compared with no VT/VF in all risk categories. Mortality at 90-days was between 4.6 to 9.6 fold higher in pts with VT/VF compared with those without it in the 3 risk groups (Figure). Both early and late VT/VF were associated with increased risk of death in the various risk categories.

Conclusions: The incidence of VT/VF and pt mortality increased as their baseline risk increased. Nonetheless VT/VF remained an important prognostic marker for the increased risk of clinical adverse events and 90-day mortality irrespective underlying baseline risk in STEMI pts undergoing primary PCI.

