BACKGROUND: The rates of cardiovascular (CV) events are highest in the period immediately after an MI but may remain elevated for an extended period of time. OBJECTIVES: Evaluate long-term rates of CV events (recurrent myocardial infarction (MI) and hospitalized stroke) and all cause mortality in patients with stable CAD after MI and in patients resembling those of the PEGASUS trial (NCT08116948). Patients ≥ 65 years old (per FDA) with and without prior MI were included. PEGASUS like cohort were those having at least one additional risk factor (>1 additional prior MI, Age≥ 65, diabetes or chronic non-end stage renal disease (NSRDI)). Rates of a composite endpoint (MI or stroke hospitalization or all-cause mortality) in the stable CAD and PEGASUS like populations were estimated during follow-up (up to four years) after the stable CAD index. Due to data and population limitations, rates were compared in patients <65 vs only. RESULTS: In the <65 year PEGASUS-like cohort, stable CAD patients <65 who had prior MI, PEGASUS-like. Event rates for the PEGASUS-like (n = 5,357) and other stable CAD cohorts (n = 8,135) were 60/1,000 and 27/1,000 person-years (py), respectively (p <0.0001). Hospitalized MI was the largest contributor to the composite endpoint (38/1,000 and 19/1,000 py, respectively) after adjusting for covariates. Outcomes included all-cause mortality, cardiovascular mortality and heart failure. CONCLUSIONS: Among elderly patients post MI, cardiovascular events and mortality appear consistently elevated and the risk of death remains high for at least 4 years. Clinical decision making should continue to be cautious for patients with cardiovascular risk factors.

PCV30 TRICYCLIC ANTIDEPRESSANTS USE AND RISK OF MYOCARDIAL INFARCTION: A SYSTEMATIC REVIEW AND META-ANALYSIS OF OBSERVATIONAL STUDIES

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OBJECTIVES: Several studies established that the use of antidepressants associated with an increased risk of myocardial infarction (MI). However, available evidence on tricyclic antidepressants (TCAs) is conflicting. We therefore examined the association between TCAs use and risk of MI by conducting a detailed systematic review and meta-analysis using all observational studies published regarding this subject. METHODS: A PubMed/MEDLINE search was conducted for studies published until 31st December, 2013. The study selection was performed using keywords and Medical Subject Headings. Bias and heterogeneity. Pooled relative risk (RR) estimates and 95% confidence intervals (CIs) were calculated using random-effects model if heterogeneity present or otherwise fixed-effects model. Cumulative meta-analysis, subgroup and sensitivity analyses were also performed. RESULTS: Six (3 cohort and 3 case-control) studies satisfying the inclusion criteria were considered for this study. There was heterogeneity among the studies (I² = 70%, P = 0.003) but no publication bias. The RR of MI 1.36; 95% CI 1.2-1.50; p <0.0001) was observed. We observed no association between TCAs use and risk of MI (RR 1.14, 95% CI 0.67-1.96, p = 0.622). However, the sensitivity analysis revealed that the TCAs users are having 36% increased risk of MI after excluding one outlier (RR 1.36, 95% CI 1.10-1.67, p <0.001) with less heterogeneity (Pheterogeneity = 0.001, I² = 78%). Subgroup analysis by study design shows that case-control studies are having positive association (RR 1.41, 95% CI 1.37-1.45, p <0.001) but, cohort studies having no association (RR 0.94, 95% CI 0.40-2.32, p = 0.9) because of an outlier cohort study. Further, cumulative meta-analysis showed a change in trend of reporting MI risk from positive to no association in TCAs users between 1996 and 2011. CONCLUSIONS: We found evidence that the use of TCAs was associated with elevated risk of MI. Further research is needed to identify the underlying biological mechanisms.

PCV31 ANTICOAGULANT USE AND BLEEDING RISK IN PATIENTS WITH VENOUS THROMBOEMBOLISM: A NESTED CASE-CONTROL STUDY

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OBJECTIVES: To examine anticoagulant use and bleeding risk in patients with venous thromboembolism (VTE) in the U.S. clinical practice setting. METHODS: Adult patients with VTE were selected from the MarketScan Commercial and Medicare Supplemental Databases between 07/01/2006 and 12/31/2011. Patients were required to have at least two outpatient visits with VTE diagnosis within 3 weeks of each other or one inpatient VTE diagnosis. Patients were also required to have at least 6 months continuous enrollment in the 6 months prior to first VTE diagnosis. Cases consisted of VTE patients who experienced a major bleeding event after VTE diagnosis. Control patients were those who did not experience any bleed after VTE diagnosis and were 1:1 matched with cases by propensity score. Anticoagulant use was categorized as current use (within 2 weeks prior to bleeding), past use (more than 2 weeks prior to bleeding), and never used prior to bleeding or during follow-up period. Multivariate logistic regression was performed to examine the association between anticoagulant use and major bleeding. RESULTS: A total of 4166 patients met the inclusion criteria, 2031 (48.8%) of whom were current users of anticoagulants. The inpatient and outpatient events were 1,141 and 302 events respectively. Patients who were current users of anticoagulants (25.6% vs. 16.7%, p < 0.0001) were significantly associated with increased risk for major bleeding (p<0.001), after adjusting for demographics and clinical factors. Results were similar with sensitivity analysis using the patient's propensity to be a VTE index VTE diagnosis. CONCLUSIONS: In patients with VTE, current and past use of anticoagulants was associated with increased risk of major bleeding. Study results suggest more effective anticoagulants demonstrating lower bleeding risk are needed to treat and prevent recurrence of VTE.

PCV32 A REPORT OF SERIOUS CARDIOVASCULAR ADVERSE EVENTS WITH THE USE OF DRONEDARONE: A META-ANALYSIS STUDY

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OBJECTIVES: Evaluating the serious cardiovascular adverse events associated with the use of dronedarone, especially among patients with permanent atrial fibrillation. The objective is to assess the association between use of dronedarone and the risk of serious cardiovascular adverse events and other health outcomes. METHODS: A systematic review and meta-analysis of retrospective and prospective observational studies on dronedarone (20 studies) was performed. The primary outcome was MI and IS events after adjusting for covariates. Outcomes included all-cause mortality, cardiovascular mortality and heart failure. CONCLUSIONS: The clinical health care professionals should prescribe dronedarone cautiously for patients with cardiovascular risk factors.