**ASSOCIATION BETWEEN PNEUMOCOCCAL VACCINATION AND MORTALITY IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION**

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Background: We sought to investigate the effect of pneumococcal vaccination on subsequent adverse events in patients undergoing percutaneous intervention (PCI) for an ST-elevation myocardial infarction (STEMI).

Methods: Patients undergoing acute PCI for a STEMI at a single community referral hospital were prospectively entered into ACC cath/PCI registry. Information regarding pneumococcal vaccination and outcomes relating to recurrent myocardial infarction (MI), and death were obtained from chart abstraction.

Results: Four hundred and seventy three patients underwent PCI for a STEMI from 1/1/2007 to 12/31/2010. Majority of patients were male (64.9%) and Caucasian (99.6%), with a mean age of 63.6 years (±13.8). Over a median follow-up of 12.7 months, there were 69 (14.6%) deaths and 22 (4.5%) recurrent MI. Patients who had received pneumococcal vaccination were at increased risk of mortality (HR=2.9; p<0.001). However patients who had received pneumococcal vaccination were statistically significantly older, and more likely to have hypertension and diabetes. After correcting for age in a multivariate Cox regression model, there was no significant association of pneumococcal vaccination with increased mortality. There was also no significant difference in recurrent MI.

Conclusion: Receipt of pneumococcal vaccination was not associated with differences in all-cause mortality or recurrent MI. Given the conflicting findings regarding pneumococcal vaccination, a prospective, randomized study will be required to clarify its cardioprotective role, if any.