IMMUNIZATIONS AND ACUTE CORONARY SYNDROMES: IS THERE A ROLE?

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The role of infections leading to inflammation and acutely destabilizing a plaque resulting in an acute coronary syndrome is being increasingly recognized. Observational studies have shown an increase in the incidence and mortality of acute MI in winter months consistent with a potential role of microbial agents acting as inflammatory stimuli. In addition, one large study demonstrated an increased short term risk of MI or stroke following respiratory infections. Although antibiotic use was not been shown to be effective, recent studies have demonstrated that influenza vaccination is protective for MI and cardiac arrest in patients with documented coronary heart disease, as well as in patients presenting with an acute coronary syndrome. In addition pneumococcal vaccination has been shown to have an anti-atherogenic effect in animal studies, which may be mediated by decreasing low density lipoprotein (LDL) accumulation in arteries. In this presentation we will briefly touch on the studies linking infections to acute coronary syndromes followed by the major studies demonstrating the utility of influenza vaccination in patients with coronary artery disease. We will also summarize the conflicting data in the literature reporting on beneficial effects, or lack thereof, of pneumococcal vaccination in various cardiovascular populations.