**ACUTE RESPIRATORY INFECTIONS AS TRIGGERS FOR CARDIOVASCULAR EVENTS**

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Atherosclerosis is an inflammatory disease and influenza can exaggerate the inflammation at the vascular level leading to acute coronary syndromes (ACS) and stroke. In apo-E knockout mice we have shown that influenza infection can cause platelet aggregation, a marked increase in inflammatory cells in atherosclerotic plaques with synergistic local and systemic inflammation. In a study of 35,000 autopsies over 8 years, we showed that influenza epidemics are associated with increased cardiovascular death. Influenza vaccination is associated with a remarkable (25-75%) reduction in risk of secondary MI, sudden cardiac arrest, stroke, and hospitalization for cardiac causes. Based on these, AHA and ACC recommend influenza vaccination for patients with cardiovascular disease (CVD). Unfortunately, the vaccine usage in patients with CVD remains less than 60% in US, and much less in many other countries. Given the fact that vaccine coverage is suboptimal and not completely effective, a post-infection therapeutic strategy is also warranted. In a retrospective cohort we found that after multivariate adjustment, subjects who are prescribed oseltamivir after influenza have a 28% less risk of developing a stroke or transient ischemic event compared to those do not. Also, in subjects with a history of CVD, in a propensity-scored multivariate adjusted analysis, use of oseltamivir after influenza infection led to a statistically significant protective effect against cardiovascular (CV) events. These studies suggest an important role for influenza in pathogenesis of acute cardiovascular events and suggest that anti-influenza agents might be used for preventing CV events.