

GW23-e0224

**SERUM SOLUBLE CD137: RISK PREDICTION AFTER ACUTE CORONARY SYNDROMES**

doi:10.1136/heartjnl-2012-302920a.133

Jinchuan Yan, Wei yuan, Cuiping Wang, peijing Liu, Jinchuan Yan. *The Affiliated Hospital of Jiangsu University*

**Objectives** Increasing evidence shows that CD137 plays an important role in the pathogenesis of acute coronary syndromes (ACS). This study evaluate the clinical predictive value of increased serum soluble CD137 (sCD137) in patients with ACS and acute chest pain.

**Methods** The levels of Serum soluble CD137 were measured by ELISA in patients with ACS and acute chest pain. The platelet activation was assessed by flow cytometry.

**Results** The levels of sCD137 were elevated (above 35.0 ng/ml) in 75 patients with ACS and in 20 patients with acute chest pain (above 35.0 ng/ml), respectively. The increased sCD137 level was significantly correlated with measured levels of troponin I ( $r=0.44$ ,  $p<0.001$ ) and the increased sCD137 levels ( $>35.0$  ng/ml) were associated with higher risk for major adverse cardiovascular events (MACE, including AMI, sudden death and recurrent angina). Both elevated serum levels of sCD137 and cTnT showed a significantly increased risk of MACE in two groups during 30 days, 6 months and 9 months of follow-up. Importantly, there were 26 cTnI-negative subjects ( $<0.4$  ng/ml) in ACS. However, in these patients, high sCD137 levels identified patients at risk for MACE not detected by cTnI-negative alone.

**Conclusions** In ACS patients, elevated sCD137 levels indicate an increased risk for cardiovascular events. Soluble CD137 might be a useful prognostic marker or indicator for adverse events in patients with ACS.