

## **Abstract # 11**

### **Diagnostic Accuracy of History and Physical Examination for Predicting Major Adverse Cardiac Events in Acute Chest Pain Patients**

**Aim** Diagnostic Accuracy of History and Physical Examination for Predicting Major Adverse Cardiac Events in Acute Chest Pain Patients

**Background** Among the cornerstones in the assessment of emergency department (ED) patients with suspected acute coronary syndrome (ACS) are the patient history and physical examination. However, many aspects of these elements are not well studied. We evaluated the diagnostic and prognostic accuracy of elements of patient history and the physical examination in ED chest pain patients for predicting major adverse cardiac events (MACE) within 30 days.

**Methods** This was a prospective observational study, which included 1167 ED patients with non-traumatic chest pain. Clinical data were collected during the initial ED assessment of the patients. The primary outcome was 30-day MACE.

**Results** Pain radiating to both arms increased the probability of 30-day MACE (LR+ 2.7), whereas episodic chest pain lasting seconds (LR+ 0.0) and > 24 h (LR+ 0.1) markedly decreased the probability. In the physical examination, pulmonary rales (LR+ 3.0) increased the risk of MACE while pain reproduced by palpation (LR+ 0.3) decreased the risk. Among cardiac risk factors, a history of diabetes (LR+ 3.0) and peripheral arterial disease (LR+ 2.7) were the most predictive factors.

**Conclusions** No clinical findings reliably ruled in 30-day MACE, whereas episodic chest pain lasting seconds and pain lasting more than 24 hours virtually ruled out 30-day MACE. Consequently, these two findings can be an important adjunct in ruling out 30-day MACE.

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