European Respiratory Society
Annual Congress 2012

Abstract Number: 3014
Publication Number: 1363

Abstract Group: 10.1. Respiratory Infections
Keyword 1: Infections Keyword 2: No keyword Keyword 3: No keyword

Title: Obesity is associated with improved outcome in community-acquired pneumonia

Dr. Anika 22789 Singanayagam anika.singa@gmail.com MD ¹, Dr. Aran 22790 Singanayagan aran.singa@gmail.com MD ², Dr. Adam 22791 Hill adamhill318@btinternet.com MD ³ and Dr. James D. 22792 Chalmers jamesdchalmers@googlemail.com MD ³. ¹ Department of Infection and Immunity, The Royal London Hospital, London, United Kingdom ; ² Department of Respiratory Medicine, Imperial College, London, United Kingdom and ³ MRC Centre for Inflammation Research, University of Edinburgh, United Kingdom .

Body: Background: Obesity was shown to be an independent risk factor for adverse outcome from 2009 pandemic H1N1 influenza. There is a relative paucity of information regarding whether this link applies to other pulmonary infections. We aimed to investigate whether body mass index (BMI) correlates with outcome in community-acquired pneumonia (CAP). Methods: We performed a prospective observational study of consecutive patients presenting to hospital with a primary diagnosis of CAP between January 2005 and December 2009. BMI measured on admission was used to classify patients into 2 groups: obese (BMI>=30) and non-obese (BMI<30). Outcomes of interest were 30-day mortality and need for mechanical ventilation or vasopressor support (MV/VS). Multivariable logistic regression was used to compare outcomes in obese patients to non-obese patients, adjusting for admission severity of illness (CURB65 criteria), diabetes mellitus, COPD and prior statin use. Results: 1079 patients were included in the study with 21% classified as obese. Mean age was 62.5 years. There was no difference in admission severity (mean CRB65 score 1.44 vs 1.39) or immediate requirement for MV/VS between obese and non-obese groups. Despite this, obese patients had lower 30-day mortality compared with non-obese patients (6.7% vs 10.3%, p=0.3). After multivariable adjustment for confounders, obesity remained significantly associated with reduced 30-day mortality (OR= 0.54, 95% CI 0.30-0.97, p=0.04). Conclusions: In our prospective study, obesity was shown to exert a protective effect on mortality from CAP. The mechanism of this effect is unclear. Further correlation from clinical and scientific studies is warranted.