

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 1214

**Publication Number:** P2251

**Abstract Group:** 1.2. Rehabilitation and Chronic Care

**Keyword 1:** Inflammation **Keyword 2:** Biomarkers **Keyword 3:** Quality of life

**Title:** Increased baseline IL-6 is associated with health status impairment after three years in COPD patients

Mrs. Renata 8899 Ferrari renataferrarifisio@gmail.com<sup>1</sup>, Ms. Laura 8900 Caram laucaram@gmail.com<sup>1</sup>, Dr. Suzana 8901 Tanni suzanapneumo@gmail.com MD<sup>1</sup>, Mrs. Camila 8902 Correa camila.correa" <correa.camila9@gmail.com<sup>1</sup> and Prof. Irma 8903 Godoy irma@fmb.unesp.br MD<sup>1</sup>. <sup>1</sup> Clinica Medica, Faculdade De Medicina De Botucatu- UNESP, Botucatu, Sao Paulo, Brazil, 18618970 .

**Body:** Previous study showed that Interleukin-6 (IL-6) increased significantly after 3 years and it was associated with mortality. However, the cutoff point of IL-6 associated with mortality and its association with other outcomes in COPD is unclear. Thus, the aim of this study is to evaluate association between values of IL-6 and disease outcome markers over time. A cohort of 77 outpatients with stable COPD was evaluated at baseline, and 53 (mean FEV1, 56% predicted) were included in the prospective study. We evaluated Interleukin-6 (IL-6), Modified Medical Research Council dyspnea scale (MMRC), six-minute walking distance (6MWD), body mass index (BMI), and Saint George's Respiratory Questionnaire (SGRQ) at baseline and after three years. Plasma concentration of IL-6 was measured by high sensitivity ELISA (BioSource International Inc, Ca, USA). The ROC curve showed that the cutoff for baseline IL-6, associated with mortality, in the cohort of 77 patients was  $\geq 1.28$  pg/ml (sensitivity 71.4%, specificity 72.3% and the area under the curve 0.70). Modifications over three years in the studied variables were included in a multiple logistic regression analysis to verify association with IL-6  $\geq 1.28$  pg/ml. Modifications in SGRQ total score over three years were associated with increased values of IL-6 [Odds 0.07 (95% CI 0.01-0.14);  $p=0.02$ ]. In conclusion, higher values of IL-6 at baseline were associated with the impairment of health status after three years.