

European Respiratory Society Annual Congress 2013

Abstract Number: 599

Publication Number: 4648

Abstract Group: 10.1. Respiratory Infections

Keyword 1: Bronchiectasis **Keyword 2:** Infections **Keyword 3:** Immunology

Title: Alterations to innate immunity in patients with bronchiectasis

Dr. Montserrat 5293 Vendrell mvendrell.girona.ics@gencat.cat MD ¹, Ms. Pilar 5294 Fernández pilarfernandez.girona.ics@gencat.cat ¹, Dr. Javier 5295 de Gracia jgracia@separ.es MD ², Dr. Antonio 6127 Alvarez aalvarez@vhebron.net ², Mrs. Maria 5296 Buxó mbuxo@idibgi.org ³, Mr. Gerard 5297 Muñoz munoz.gerard@gmail.com ³, Dr. Salvi 5304 Sendra salvi.sendra@gmail.com MD ¹, Dr. Gladis 5305 Sabater sabater.gladis@gmail.com MD ¹ and Dr. Jose Manuel 5306 Fernandez-Real jmfernandezreal.girona.ics@gencat.cat MD ¹. ¹ Pneumology, Hospital Universitari Dr. Josep Trueta, Girona, Spain ; ² Pneumology, Hospital Universitario Vall Hebron, Barcelona, Spain and ³ Pneumology, Institut D'Investigació Biomèdica De Girona, Girona, Spain .

Body: Mannose-binding lectin (MBL) and lung surfactant protein D (SPD) are important components of the innate immune system. Low serum MBL levels have been associated with increased susceptibility to infection and serum SPD levels have been found to increase in acute and chronic lung diseases such as pneumonia, COPD and cystic fibrosis. Aim: To investigate alterations in MBL and SPD in bronchiectasis. Methods: Prospective and observational study of patients older than 15 years old with bronchiectasis in stable state and a healthy control group. Blood samples were analysed for systemic inflammatory markers, MBL and SPD. A fresh sputum sample was taken for culture and patients also provide the sputum from the last 24 hours. MBL and SPD serum concentrations were measured by ELISA. Deficiency of MBL was taken as <500ng/ml. Results: 181 patients (mean age 57±16 years) and 159 healthy adult volunteers (mean age 54.9±11.7 years) were enrolled. No significant differences in MBL levels were found between the two groups, however, there were significantly more subjects in the patient group who had MBL levels of <500ng/dl (43.1% vs. 26.4%, p=0.001) and more with levels of <100 ng/dl, (p=0.06). Levels of SP-D and systemic inflammatory markers were higher in patients than in controls (p<0.001). SP-D was higher in patients with more purulent sputum (p=0.049). Conclusions: MBL deficiency was more common in patients with bronchiectasis and may be a factor in its pathogenesis. Serum SPD levels were higher in patients with bronchiectasis, especially when sputum was more purulent suggesting that this could be a biomarker of lung inflammation. Grants: SEPAR, FUCAP, SOCAP 2006. Study sponsored by PII Bronquiectasias, SEPAR.