

European Respiratory Society Annual Congress 2012

Abstract Number: 557

Publication Number: P685

Abstract Group: 1.5. Diffuse Parenchymal Lung Disease

Keyword 1: Breath test **Keyword 2:** Interstitial lung disease **Keyword 3:** Spirometry

Title: Diagnostic yield of specific inhalation challenge in patients with hypersensitivity pneumonitis

Mrs. Monica 4424 Sanchez monica.sanchez.ortiz@gmail.com MD ^{1,3}, Mrs. Ana 4425 Villar avillar@vhebron.net MD ^{1,3}, Mrs. Maria Jesus 4426 Cruz mj.cruz@vhir.org ^{1,3}, Prof. Dr Ferran 4427 Morell fmorell@vhebron.net MD ^{1,3} and Dr. Xavier 4428 Muñoz xmunoz@vhebron.net MD ^{1,2,3}. ¹ Respiratory Service, Hospital Vall d'Hebron, Barcelona, Spain, 08035 ; ² Department of Biology, Physiology and Immunology, Universitat Autònoma de Barcelona (UAB), Spain, 08193 and ³ Respiratory Diseases, CIBER Enfermedades Respiratorias (CibeRes), Palma Mallorca, Illes Balears, Spain, 07110 .

Body: Introduction: Hypersensitivity pneumonitis (HP) is a potentially serious illness that may progress to pulmonary fibrosis and chronic respiratory insufficiency. Reliable methods are needed to diagnose the condition and, if possible, to identify the causative agent. The aim of the study was to establish the diagnostic yield of Specific Inhalation Challenge (SIC) in patients with HP. Material and methods: All patients with suspected HP in whom SIC were performed between June 1995 and December 2010 (n= 113) were included. Diagnosis of HP was established on the basis of internationally accepted criteria (M.Girard, et al. Allergy 2009; 64:322-334). The SIC was considered positive in the case of a decrease >15% in FVC and/or a decrease >20% in TLCO, or a decrease in FVC between 10-15% accompanied by an increase in temperature of 0.5°C within 24h of the inhalation of the antigen (Morell F, et al. Medicine 2008; 2:110-130). Results: Eighty-eight patients were diagnosed with HP. In 68 the SIC was positive and in 45 negative; four false positives (3.5%) and 24 false negatives (21.2%) were recorded. The sensitivity and specificity of the test were 72.7% and 84% respectively, with a positive predictive value of 94% and a negative predictive value of 47%. Having HP caused by an antigen other than birds or fungi was a predictor of a false negative result (p=0.035). Conclusions: In HP a positive SIC practically confirms the diagnosis, while a negative result does not rule it out. Project partially funded by FIS PI 10/01577 (Instituto de Salud Carlos III) and Beca SEPAR 2010.