European Respiratory Society
Annual Congress 2012

Title: Cross-sectional analysis of the Belgian Severe Asthma Registry

Dr. Florence 2212 Schleich fschleich@chu.ulg.ac.be MD [1], Prof. Dr Guy 2213 Brusselle Guy.Brusselle@uzgent.be MD [2], Prof. Dr Renaud 2214 Louis r.louis@chu.ulg.ac.be MD [1], Prof. Dr Olivier 2215 Vandenplas olivier.vandenplas@pneu.ucl.ac.be MD [3], Prof. Dr Charles 2216 Pilette charles.pilette@uclouvain.be MD [4], Prof. Dr Rudi 2217 Peche rudi.peche@chu-charleroi.be MD [5] and Prof. Dr Guy 2218 Joos guy.joos@ugent.be MD [2]. [1] Respiratory Medicine, CHU Sart-Tilman, Liege, Belgium, 4000 ; [2] Dept Respiratory Medicine, Ghent University Hospital, Ghent, Belgium, 9000 ; [3] Respiratory Medicine, Clinique Universitaire Mont Godinne, Yvoir, Namur, Belgium, 5530 ; [4] Respiratory Medicine, Cliniques Universitaires St Luc, Bruxelles, Belgium, 1200 and [5] Respiratory Medicine, CHU Charleroi, Vésale, Charleroi, Belgium, 6110 .

Body: The Belgian severe asthma registry (BSAR) is a secured web-based registry encompassing demographic, clinical, functional and inflammatory data of severe adult asthmatics as defined by the ATS, aiming at raising awareness on severe asthma, studying its natural history, identifying phenotypes, and offering tools to optimize care. Methods The cross-sectional analyses of the BSAR included 229 refractory asthmatics from 7 Belgian centers, followed up by respiratory physicians for at least one year prior to inclusion. Results Severe asthma was more frequent in women (56%), was associated with atopy (69%) and started early (71% before age 40). 10% were current smokers and 32% ex-smokers. In addition to high doses of ICS+LABA, 48% of patients received LTRA, 21% anti-IgE and 21% oral corticosteroids. Despite impaired flow rates (mean FEV_1=70% pred; FEV_1/FVC=63%), KCO was well preserved (98% pred). Eosinophilic asthma (sputum Eos≥3%) was the predominant phenotype (60%, n=45) while neutrophilic (sputum Neu≥76%) and paucigranulocytic asthma were 22% and 13% respectively. The median FE_{NO} was 22ppb (4-250ppb) and the fraction of patients with FE_{NO}≥50ppb was 17% (n=155). Comorbidities included chronic rhinosinusitis (58%), nasal polyposis (21%), oesophageal reflux (36%), obesity (48%) and depression (18%). Asthma control assessed by ACT and ACQ was impaired (85% had ACT<20 and 87% had ACQ>0.75) and average AQLQ was 4.39. Conclusion In the BSAR, severe asthmatics are characterized by airflow limitation, frequent comorbidities, poor asthma control and quality of life. Paucigranulocytic asthma represents a rare phenotype while a high proportion of severe asthmatics have uncontrolled eosinophilic airway inflammation.