



ORAL PRESENTATION

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The 'GA²LEN Sinusitis Cohort': an introduction

Griet Vandeplas^{1*}, Asif Khan², Thi Minh Thao Huynh³, Peter Tomassen¹, Thibaut van Zele¹, Lars-Olaf Cardell⁴, Julia Arebro⁴, Heidi Olze⁵, Ulrike Foerster⁵, Marek Leszek Kowalski⁶, Agnieszka Olszewska-Ziąber⁶, Wytske Fokkens⁷, Cornelis van Drunen⁷, Joaquim Mullol⁸, Peter Hellings⁹, Valérie Hox⁹, Elina Toskala¹⁰, Glenis Scadding¹¹, Valerie Lund¹², Claus Bachert¹

From The 10th Symposium of Experimental Rhinology and Immunology of the Nose (SERIN 2015) Stockholm, Sweden. 19-21 February 2015

Background

The Global Allergy and Asthma European Network (GA²LEN) is a network of the leading European allergy clinical and research facilities and the GA²LEN Sinusitis Cohort is a database within this network. The aim of this cohort is to intensify research on rhinosinusitis pheno- and endotypes, thus differentiating chronic rhinosinusitis (CRS) into smaller disease entities based on clinical, biological, and patient-reported outcomes.

Methods

Patients (N = 869) from 9 participating outpatient ENT clinics recruited to participate in this cross-sectional, multicentre cohort study were assigned to 3 groups: CRS with nasal polyps (CRSwNP) and CRS without nasal polyps (CRSsNP), both diagnosed using EPOS 2012 guidelines; and control defined as an unmatched cohort of patients undergoing nasal turbinate surgery with or without allergy symptoms. Patient subgroups were compared by clinician reported, patient reported, imaging, endoscopy, lung function, and biomarker outcomes.

Results

Overall, 51.2%, 27.3%, and 21.5% of patients were in the CRSwNP, CRSsNP, and control groups, respectively. Across groups, mean age was 42.1 years (range 15–76 years), 55.0% were male, and 95.5% were Caucasian. Comorbid allergic rhinitis was diagnosed in 33.2%, 29.0%, and 23.8% of patients in the CRSwNP, CRSsNP, and control groups, respectively. Of all patients, 33.2% had comorbid asthma, which was significantly ($p < 0.0001$) more frequent in the CRSwNP (49.6%) than CRSsNP (20.2%) group. CRSwNP patients reported late age of onset for

asthma, whereas CRSsNP patients reported early age of onset. Among CRSwNP and CRSsNP patients who did not report asthma, 59.8% and 41.9%, respectively, had an FEV₁/FVC ratio of $\leq 80\%$ ($p = 0.063$). Contact allergy was present significantly more often in CRSsNP than CRSwNP patients (15.1% vs 5.2%; $p = 0.0001$). Overall, 4.4% of all patients reported aspirin intolerance, which was significantly more frequent in CRSwNP vs CRSsNP patients (7.4% vs 1.3%; $p < 0.0001$); among these CRSwNP patients, 90.9% had asthma, forming the Aspirin Exacerbated Respiratory Disease (AERD) subgroup. A significantly higher number of CRSwNP patients reported previous surgery vs CRSsNP patients (45.9% vs 22.7%; $p < 0.0001$).

Discussion

The GA²LEN Sinusitis cohort was not intended to be population representative; however, it is a large cohort of patients recruited throughout Europe with clinical, biomarker, as well as patient-reported outcomes.

Authors' details

¹Ghent University, Upper Airways Research Laboratory, Ghent, Belgium. ²Sanofi, Health Economics and Outcomes Research, Paris, France. ³AIXIAL, Biometry Department, Levallois-Perret, France. ⁴Karolinska Institutet, Division of ENT Diseases, CLINTEC, Stockholm, Sweden. ⁵Charité-Universitätsmedizin Berlin, Dept of Otorhinolaryngology, Berlin, Germany. ⁶Medical University of Lodz, Dept of Immunology, Rheumatology and Allergy, Lodz, Poland. ⁷Academic Medical Centre, Dept of Otorhinolaryngology, Amsterdam, Netherlands. ⁸IDIBAPS, Clinical & Experimental Respiratory Immunology, Barcelona, Catalonia, Spain. ⁹University Hospitals Leuven, Dept of Otorhinolaryngology, Head and Neck Surgery, Leuven, Belgium. ¹⁰Temple University School of Medicine, Dept of Otolaryngology-Head and Neck Surgery, Philadelphia, PA, USA. ¹¹Royal National Throat, Nose and Ear Hospital, Allergy and Medical Rhinology Unit, London, UK. ¹²Royal National Throat, Nose and Ear Hospital, Rhinology Unit, London, UK.

Published: 26 June 2015

¹Ghent University, Upper Airways Research Laboratory, Ghent, Belgium
Full list of author information is available at the end of the article

doi:10.1186/2045-7022-5-S4-O1

Cite this article as: Vandepas et al.: The 'GA²LEN Sinusitis Cohort': an introduction. *Clinical and Translational Allergy* 2015 **5**(Suppl 4):O1.

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