



ORAL PRESENTATION

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# The 'GA<sup>2</sup>LEN Sinusitis Cohort': an introduction

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## Background

The Global Allergy and Asthma European Network (GA<sup>2</sup>LEN) is a network of the leading European allergy clinical and research facilities and the GA<sup>2</sup>LEN 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 FEV<sub>1</sub>/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 GA<sup>2</sup>LEN 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.

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