



Rhinitis phenotypes and multimorbidities in the general population: the CONSTANCES cohort

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For the first time in a general adult population, this study shows novel rhinitis phenotypes based on allergic rhinitis and non-allergic rhinitis multimorbidities, and that participants with asthma and conjunctivitis had more severe rhinitis <https://bit.ly/3ReCsoN>

Cite this article as: Savouré M, Bousquet J, Leynaert B, *et al.* Rhinitis phenotypes and multimorbidities in the general population: the CONSTANCES cohort. *Eur Respir J* 2023; 61: 2200943 [DOI: 10.1183/13993003.00943-2022].

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Received: 6 May 2022
Accepted: 16 Sept 2022

Abstract

Background Scarce epidemiological studies have characterised allergic rhinitis (AR) and non-allergic rhinitis (NAR) in adults. In a population-based cohort, our aims were to 1) describe rhinitis, AR and NAR, and 2) explore how asthma and conjunctivitis may lead to the identification of novel rhinitis phenotypes.

Methods In this cross-sectional analysis, current rhinitis was defined as present in the last 12 months using a questionnaire from the French CONSTANCES cohort. Participants with current rhinitis reporting nasal allergies were considered as AR, otherwise as NAR. We described AR and NAR phenotypes, and their phenotypes including co-occurrence with ever-asthma and ever-conjunctivitis.

Results Among the 20 772 participants included in this analysis (mean±SD age 52.6±12.6 years; 55.2% female), crude prevalences of AR and NAR were 28.0% and 10.9%. AR participants more frequently reported persistent rhinitis (31.6% *versus* 25.1%) and moderate-to-severe rhinitis (40.1% *versus* 24.2%) than NAR participants. Among AR or NAR participants, those with ever-asthma reported more moderate-to-severe rhinitis. Participants with AR, ever-asthma and ever-conjunctivitis had an earlier age of rhinitis onset, more severe rhinitis and higher eosinophil counts than participants in other groups. Results were replicated in another cohort.

Conclusions In this large population-based cohort, 40% reported current rhinitis, with a lower prevalence of moderate-to-severe rhinitis than in clinical practice. For the first time in a general adult population, we showed that AR and NAR alone or in combination with asthma or in combination with asthma and conjunctivitis are different phenotypes. These results provide new insights on how best to manage rhinitis and its multimorbidities.

