More Research Is Needed for Local Allergic Rhinitis

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Dear Editors,

We read with interest the work by Sennekamp et al. [1] demonstrating that patients with local allergic rhinitis (LAR) may progress to systemic allergic rhinitis (SAR) over time. Although LAR was first reported in the 1970s [2] and many clinicians observed patients with this entity [3–5], this issue has not been studied in sufficient detail and deserves more attention [6, 7]. In fact, we have observed patients with LAR symptoms in our center for more than 30 years, but we have not had the resources to study it in depth until recently. To our surprise, LAR is currently a subject of debate because, although it is frequently reported by some, it is rarely noted by others. This may be due to the system of patient referral to tertiary specialized centers as well as differences in the prevalence between populations [6, 7].

In our view, more studies estimating the prevalence, significance and natural history of LAR are needed in adult and pediatric populations. Follow-up studies including patients and exposed controls are the most adequate approach to evaluate the natural evolution of diseases. Where possible, patients should be studied from the beginning in order to avoid survival bias [8]. However, this is often very difficult because

many patients are referred to the allergy clinic long after disease onset.

In 2014, we published the initial results of a 10-year follow-up study of LAR [8]. We included a cohort of 194 LAR patients (<2 years of evolution) and 130 healthy controls evaluated yearly. After 5 years, patients and controls had a similar rate of conversion to SAR (6.8 and 4.5%, respectively). These data contrast with the findings of Sennekamp et al. [1]. In their retrospective study, they evaluated the long-term conversion rate from LAR to SAR based on medical records [1]. They selected 42 patients with positive reactions to nasal allergen provocations but with a negative skin test (ST) to the same allergen (but not necessarily to others), who had attended their center from 1982 to 2012 and who had repeated the ST at least once during the study. They reported that negative ST reactions were converted into positive ones in 17 patients (40%). Although such retrospective studies can be of value for estimating changes in disease prevalence and evolution, they are subject to several biases. The patients included attended the clinic more than once and thus were more likely to have more severe and/or persistent symptoms. However, milder cases that did not

return for further evaluation would be missed.

Another potential issue is that the authors selected 42 subjects but did not provide information on the total number of patients initially evaluated, their clinical characteristics and criteria for study exclusion.

Another point is the large differences in patient age and the variability in the time interval between evaluations (1–27 years). A history of rhinitis symptoms at the first evaluation was also not provided. Taken together, these factors indicate a great heterogeneity within the study group, which is potentially problematic given the number of cases evaluated.

A valuable feature of the study was the inclusion of younger patients, since data on LAR in children are scarce [3–5, 8]. One might consider that if LAR is detected in children it may represent the first step in the natural evolution to classical SAR over time. The study by Sennekamp et al. [1] supports this idea, reporting that younger patients (≤25 years) have a greater predisposition to develop SAR than older patients.

Another important issue is that 23 LAR patients (55%) showed positive skin reac-

tions to other allergens in the test panel at the initial evaluation. We wonder if the inclusion of these patients may contribute to the high rate of conversion to a positive ST reported in this study [1]. In fact, restricting the analysis to the 19 patients with negative ST with regard to all aeroallergens tested at the initial evaluation, the rate of conversion is lower (21%; 4/19 patients)

and similar to our previously reported results in nonatopic rhinitis patients (24%; 43/180 patients) [9]. However, even in view of these potential limitations, a 21% of rate of conversion to SAR in patients who have had LAR for more than 7 years is an important figure. These findings together with the excellent results obtained in LAR patients treated with specific immunotherapy

[10] reinforce the need for an early and correct diagnosis of LAR in nonatopic rhinitis patients.

It will be interesting to compare the rate of conversion of LAR to SAR reported in this retrospective study to the final results of our 10-year follow-up study of LAR, which should be released in the next few years.

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