

Should we modify the allergic rhinitis and its impact on asthma dichotomic classification of severity?

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The Allergic Rhinitis and its Impact on Asthma (ARIA) initiative proposes the classification of allergic rhinitis (AR) severity as mild *versus* moderate to severe and to adapt the treatment accordingly (1). In an attempt to simplify this classification, Van Hoecke et al. (2) published the results of a cross-sectional survey in general practice in Belgium. The authors suggested to simply ask two questions to evaluate this severity: Do your symptoms of AR cause sleep disturbance? Do your symptoms of AR cause impairment of your daily personal (daily activities, leisure, sport) and/or professional life (school, work)? These items were present in the initial ARIA document (1). The novelty is to classify as patients with mild AR responding 'no' to both

questions, moderate patients responding 'yes' to one question and severe to both questions.

In this study, we wanted to address the same issue in our two cross-sectional surveys designed to test the ARIA classification in France (3).

The patients of the study and the methods have previously been reported in detail (3). Briefly, (i) a spring survey, where 1321 practitioners enrolled 3026 patients consulting for seasonal AR and (ii) an autumn-winter survey, where 1346 practitioners enrolled 3507 patients for perennial AR were conducted (3). Both doctors and patients filled out a specific questionnaire on AR. Daily impairment including the impact of rhinitis on patient's daily life were assessed Symptoms and rhinitis treatments between the three severity groups were compared.

The 5140 patients (2690–52.5% of women, mean age 35.6 ± 13.4 years) were divided into mild (357, 7.0%), moderate (2498, 48.6%) and severe (2285, 44.4%).

The most common symptoms were nasal symptoms. The mild and moderate groups were very similar (especially for nasal and eye symptoms, the 95% confidence intervals being overlapping) compared to the severe group. Eye, lung and general symptoms were more common in the latter one (Table 1).

H1-antihistamines were equally used whatever was the AR severity (Table 1). Few differences were observed for the use of nasal glucocorticosteroids. Eye drops were more commonly used in the severe group, and nasal glucocorticosteroids were less used in the mild group.

The modified classification proposed by Van Hoecke et al. (2) applied to the French general population appeared to be less relevant than the one proposed

by ARIA and does not seem to simplify the correlation between symptoms severity and treatment. Even if some statistical differences were observed, mainly because of the very large sample size, no clear clinically relevant trends were observed that could support the need for a distinction between mild, moderate and severe patients.

Missing data have probably not affected the results as no differences have been found for the main parameters between this selected population and the original one. Another limitation might be the low proportion of patients with mild AR. However, as the objective of the study was the differentiation between moderate and severe AR, this should not have induced any important bias.

In another article of the same group (4), 89% of 431 patients considered the severity of their symptoms on a visual analogue scale as moderate to severe. These scale scores were perfectly correlated with specific quality of life scores. Bousquet et al. (5) found similar results in a study on 3052 patients seen in primary care and suffering from AR for at least 3 years.

Although the debate does not seem to be closed, we have shown here that the ARIA severity classification is still valid, supporting the decision of the ARIA update (6).

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Table 1 Symptoms according to severity

Symptoms*	Mild	Moderate	Severe	P
Nasal symptoms				
Rhinorrhoea	265–74.2% (69.7–78.8)	1874–75% (73.3–76.7)	1697–74.3% (72.5–76.1)	NS
Obstruction	197–55.2% (50.0–60.3)	1517–60.7% (58.8–62.6)	1616–70.7% (68.9–72.6)	<0.001
Pruritus	154–43.1% (38.0–48.3)	1223–49% (47.0–50.9)	1175–51.4% (49.4–53.5)	<0.01
Itching	259–72.5% (67.9–77.2)	1884–75.4% (73.7–77.1)	1793–78.5% (76.8–80.2)	<0.01
Loss of olfaction	85–23.8% (19.4–28.2)	748–29.9% (28.1–31.7)	861–37.7% (35.7–39.7)	<0.001
Eye symptoms				
Watering	128–35.8% (30.8–40.7)	1010–40.4% (38.5–42.3)	1083–47.4% (45.3–49.4)	<0.001
Pruritus	117–32.6% (27.7–37.4)	1026–41% (39.1–43.0)	1068–46.7% (44.7–48.7)	<0.001
Red eye	53–14.7% (11.1–18.4)	493–19.7% (18.2–21.3)	563–24.6% (22.8–26.4)	<0.001
Oedema	16–4.4% (2.3–6.6)	138–5.5% (4.6–6.4)	159–6.9% (5.9–8.0)	<0.05
Lung symptoms				
Cough	96–26.4% (21.9–31.0)	744–29.7% (27.9–31.5)	797–34.8% (32.8–36.7)	<0.001
Wheezing	43–11.8% (8.5–15.1)	427–17% (15.6–18.5)	508–22.2% (20.5–23.9)	<0.001
Other symptoms				
Pharyngeal irritation	104–28.4% (23.8–33.0)	917–36.6% (34.7–38.5)	936–40.8% (38.8–42.8)	<0.001
Fatigue	54–14.7% (11.1–18.3)	516–20.6% (19.0–22.2)	601–26.2% (24.4–28.0)	<0.001
Headache	50–13.6% (10.1–17.1)	390–15.5% (14.1–17.0)	447–19.5% (17.8–21.1)	<0.001
Treatments*				
Oral treatments				
H1-anti-histamines	314–84.4% (80.7–88.1)	2192–87.2% (85.9–88.5)	2057–89.4% (88.2–90.7)	<0.05
Glucocorticosteroids	12–3.2% (1.4–5.0)	163–6.5% (5.5–7.4)	204–8.9% (7.7–10.0)	<0.001
Nasal treatments				
H1-anti-histamines	50–13.3% (9.9–16.8)	316–12.6% (11.3–13.9)	329–14.3% (12.9–15.7)	NS
Glucocorticosteroids	144–38.3% (33.4–43.2)	1204–47.8% (45.9–49.8)	1191–51.7% (49.7–53.7)	<0.001
Decongestants	25–6.6% (4.1–9.1)	193–7.7% (6.6–8.7)	190–8.2% (7.1–9.4)	NS
Cromones	4–1.1% (0–2.1)	79–3.1% (2.5–3.8)	53–2.3% (1.7–2.9)	<0.05
Saline	10–2.6% (1.0–4.3)	104–4.1% (3.4–4.9)	77–3.3% (2.6–4.1)	NS
Eye drops	54–14.2% (10.7–17.7)	462–18.3% (16.8–19.8)	545–23.6% (21.9–25.3)	0.001

NS, not significant.

*Raw numbers, % and (95% confidence intervals).

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