

# Characteristics of Patients With Asthma and History of Coexisting Allergic Rhinitis Initiating Dupilumab in Real-World Clinical Practice: The RAPID Registry Study

Asthma

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## Background

- Patients with asthma often have coexisting type 2 inflammatory diseases such as AR<sup>1</sup>
- Dupilumab is a human monoclonal antibody<sup>2,3</sup> that blocks signaling of interleukin-4 and -13, key and central drivers of type 2 inflammation<sup>4</sup>
- The global RAPID registry (NCT04287621) enrolled patients with asthma who initiate dupilumab in real-world clinical practice<sup>5</sup>
- This analysis assessed AR prevalence and compared baseline characteristics between patients with or without a history of coexisting AR

## Methods

### Study design

- The RAPID registry enrolled patients aged ≥12 years who initiate dupilumab for asthma (primary indication) in routine clinical practice according to country-specific prescribing information
- This analysis includes the first 205 patients enrolled

### Study assessments

- Baseline (pre-dupilumab) demographics and clinical characteristics

## Objective

- To compare the baseline (pre-dupilumab) characteristics of asthma patients with and without coexisting AR who have been enrolled in the RAPID registry

## Conclusions

- Over 80% of patients with asthma who initiated treatment with dupilumab in the RAPID registry had a history of coexisting AR
- Patients with coexisting AR were predominantly female and younger, with a longer duration of asthma and similar disease burden, yet poorer health-related quality of life than those without AR

## Results

Table 1. Baseline demographics, PROs, physician specialties, and ongoing AR medications.

	With AR N = 167; 81.5%	Without AR N = 38; 18.5%
Age, mean (SD), years	48.2 (17.5)	58.4 (14.4)
Age group, n (%)		
12 to <18 years	10 (6.0)	0
18 to <40 years	44 (26.3)	3 (7.9)
40 to <65 years	81 (48.5)	22 (57.9)
≥65 years	32 (19.2)	13 (34.2)
Female, n (%)	116 (69.5)	18 (47.4)
Race, n (%)	n = 151	
White	120 (79.5)	32 (84.2)
Black or African American	22 (14.6)	5 (13.2)
Other/multiple	9 (6.0)	1 (2.6)
Hispanic or Latino ethnicity, n/n (%)	27/160 (16.9)	8/37 (21.6)
Body mass index, mean (SD), kg/m <sup>2</sup>	30.4 (8.1), n = 159	30.7 (7.1), n = 36
Time since first asthma diagnosis, mean (SD), years	21.9 (18.6)	16.2 (13.6)
AR duration, mean (SD), years	12.5 (18.9), n = 60	NA
Patient-reported outcomes, mean (SD)		
ACQ-6 score <sup>a</sup>	2.4 (1.2), n = 161	2.2 (1.1), n = 36
AQLQ score <sup>b</sup>	4.0 (1.3), n = 160	4.4 (1.5), n = 36
AR-VAS score <sup>c</sup>	47.8 (29.3), n = 152	NA
RQLQ(S)+12 score <sup>d</sup>	2.2 (1.3), n = 152	NA
Physician specialties regularly seen for asthma, n (%)	n = 165	n = 37
Allergist/immunologist, n (%)	149 (90.3)	20 (54.1)
Pulmonologist, n (%)	32 (19.4)	17 (45.9)
Internal medicine/pediatrician/primary care, n (%)	37 (22.4)	9 (24.3)
Other, n (%)	3 (1.8)	1 (2.7)
None, n (%)	1 (0.6)	0
Ongoing AR medications, n (%)		
Antihistamines	88 (52.7)	NA
Nasal steroids	64 (38.3)	NA

<sup>a</sup>0 = best control to 6 = worst control. <sup>b</sup>1 = worst HRQoL to 7 = best HRQoL. <sup>c</sup>0 = least symptoms to 100 = worst symptoms. <sup>d</sup>0 = best HRQoL to 6 = worst HRQoL.

Figure 1. Baseline lung function was similar among patients with or without coexisting AR.

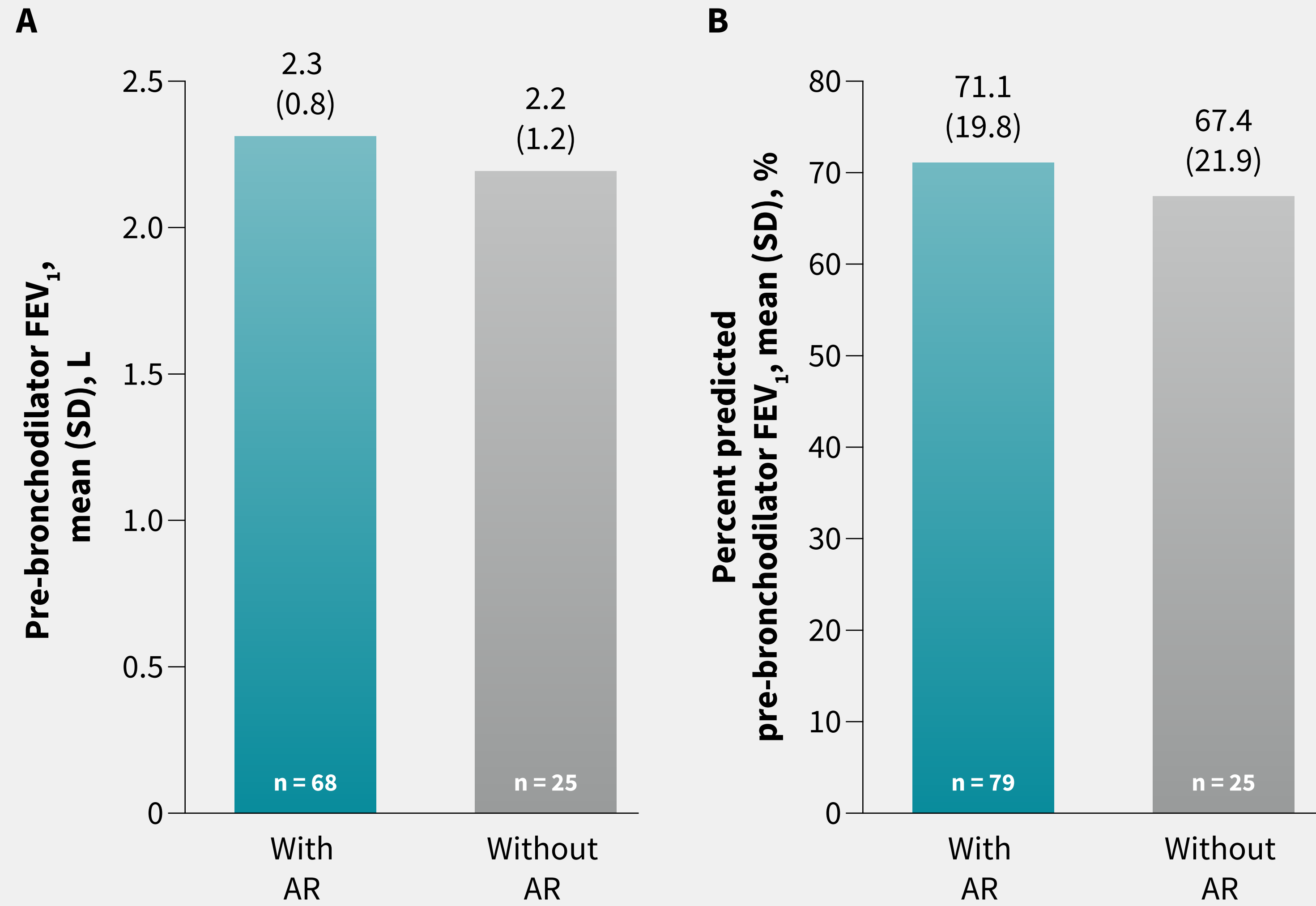
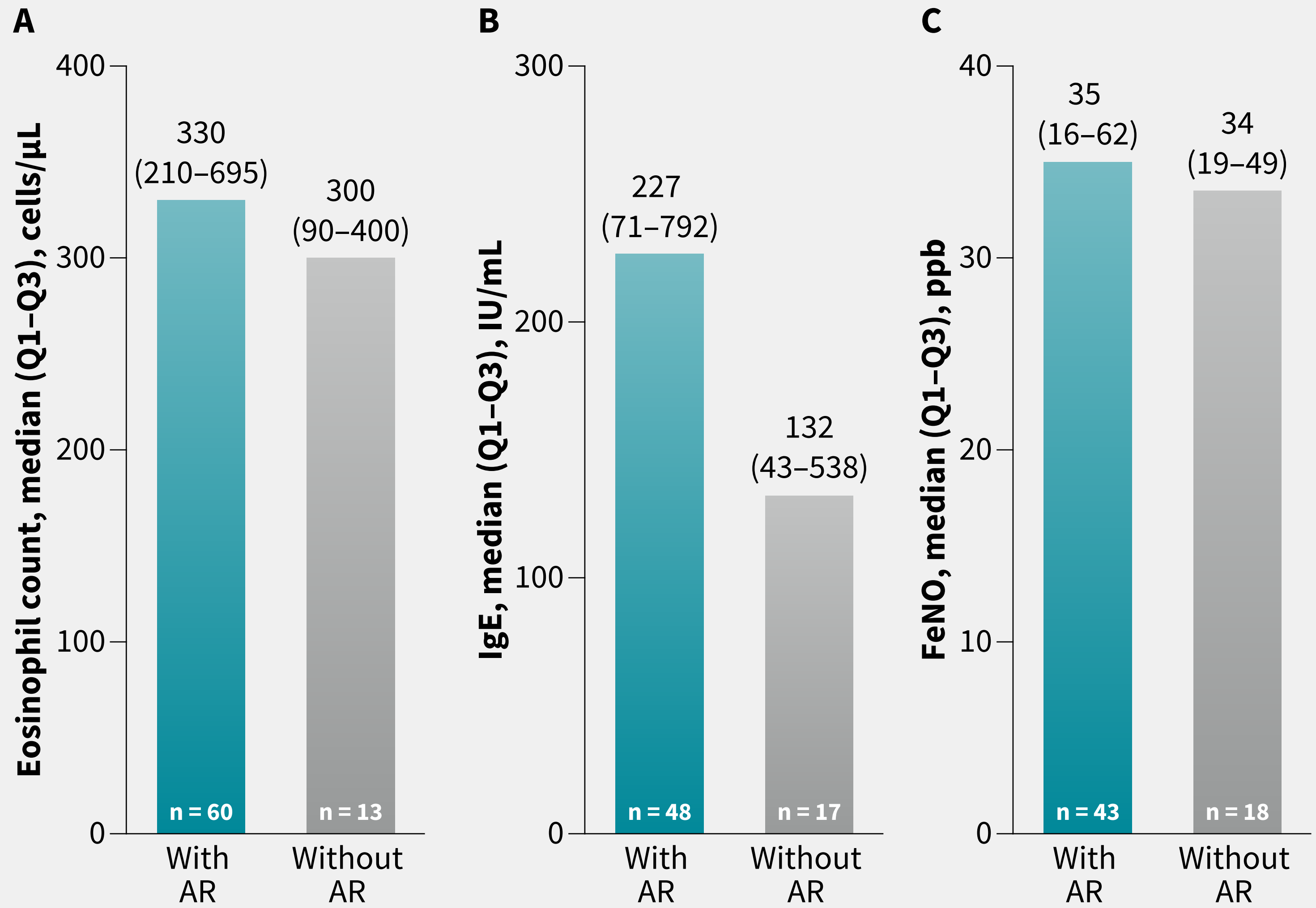


Figure 2. Baseline inflammatory markers were elevated among patients with or without coexisting AR.



ACQ-6, 6-item Asthma Control Questionnaire; AQLQ, Asthma Quality of Life Questionnaire; AR, allergic rhinitis; AR-VAS, Allergic Rhinitis Visual Analog Scale; FeNO, fractional exhaled nitric oxide; FEV<sub>1</sub>, forced expiratory volume in 1 second; IgE, immunoglobulin E; NA, not available; Q, quartile; RQLQ(S)+12, Standardized Rhinoconjunctivitis Quality of Life Questionnaire for use in patients aged ≥12 years; SD, standard deviation.

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