

Characterization and Healthcare Resource Use of Patients with Severe Asthma in Brazil

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Aims

- Severe Asthma (SA) has been associated with a significant clinical burden with a higher use of healthcare resources and expenditures in developed countries. There is scarce data available describing characteristics of SA patients in the public health system and the burden of their illness in Brazil.
- Objective:** to describe and characterize the use of healthcare resources, for exacerbations, by patients with SA in a public healthcare center in Brazil.

Methods

A *post-hoc* analysis was carried out with SA patients from the Program for Control of Asthma (ProAR)^{1,2} who were identified previously according to a former NIH SA criteria (1997).



SA Patients
(NIH 1997)
≥ 18 years

Reclassified

Modified ATS/ERS 2014 criteria³
high doses of inhaled corticosteroids (ICS) plus controller for at least 6 months

These asthma patients were described by:



Baseline characteristics: clinical and demographic;



Severe exacerbation: defined as emergency room (ER) visit or hospitalizations;



Clinically meaningful exacerbations: defined as ER visits, hospitalizations or oral corticosteroid cycles in the last 12 months.



Asthma Control Questionnaire-6 (ACQ6).



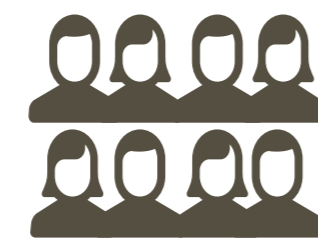
Healthcare resource use

- Hospital admissions in the previous 12 months
- Emergency Room visit (ER) in the previous 12 months

GINA = Global Initiative for Asthma; NIH = National Institutes of Health

Results

Severe asthma classification



N=531
Subjects with SA
(NIH 1997)

Reclassified



N=172 (38.1%)
Modified ATS/ERS
2014³ criteria

Table 1. Demographic and clinical characteristics of the SA patients assessed according to modified ATS/ERS 2014 (N=172).

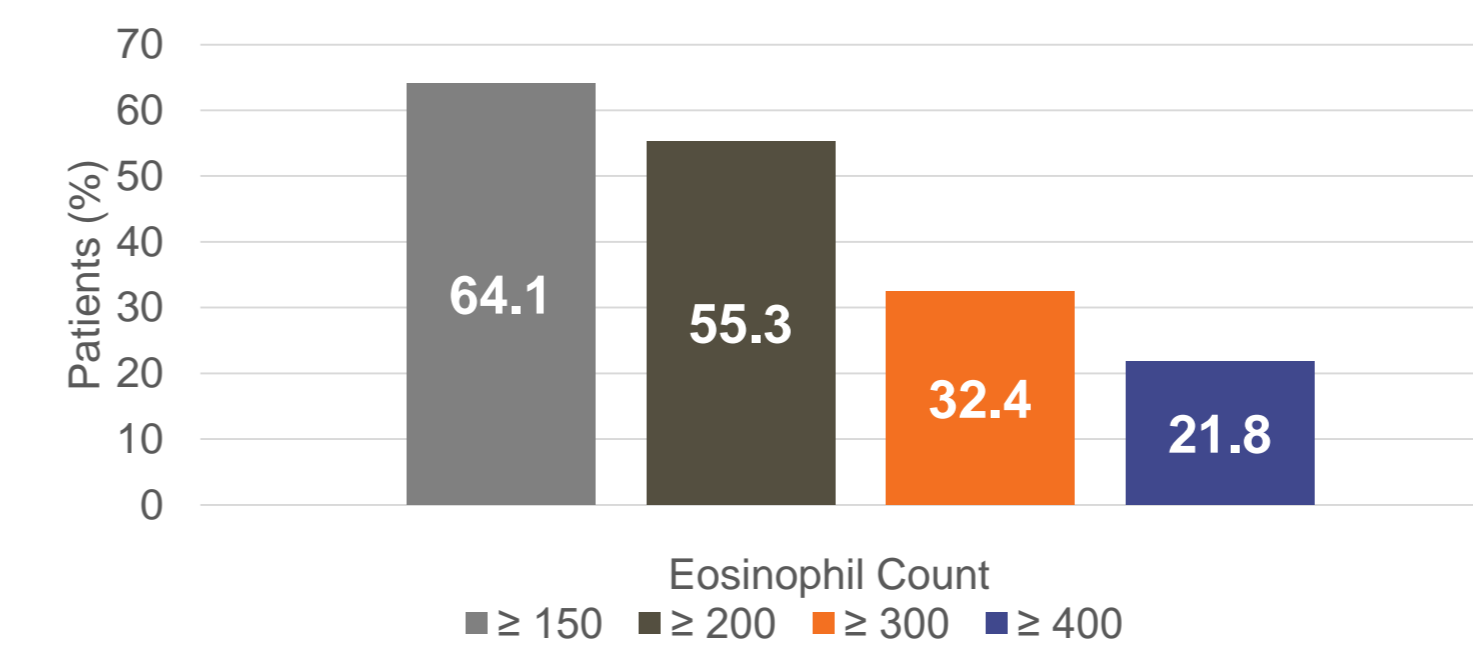
% Female	84.3
Mean age in years (SD)	53.8 (12.4)
Skin Colour (%)	
Black	36.0
White	8.1
Indigenous	1.2
Asian	1.2
Mixed	53.5
Education (%)	
Illiterate	7.6
Elementary School	52.0
High School	34.5
Higher Education	5.8
Mean age of onset of asthma symptoms: years (SD)	15.3 (15.1)
BMI (%)	
Underweight	0.6
Eutrophic	18.0
Overweight	34.3
Obesity class I and II	43.0
Obesity class III	4.1

BMI = Body Mass Index; SD = Standard Deviation

Table 2. Patients reported comorbidities (n=172)

Most common comorbid condition	%
Rhinitis	96.5
Gastroesophageal reflux disease (GERD)	79.1
Hypertension	57.0
Dyslipidemia	36.0
Psychiatric disorders	14.5
Diabetes mellitus	14.0
Osteoporosis	10.5

Graph 1. Distribution of SA patients according to blood eosinophil counts (cells/ μ L)



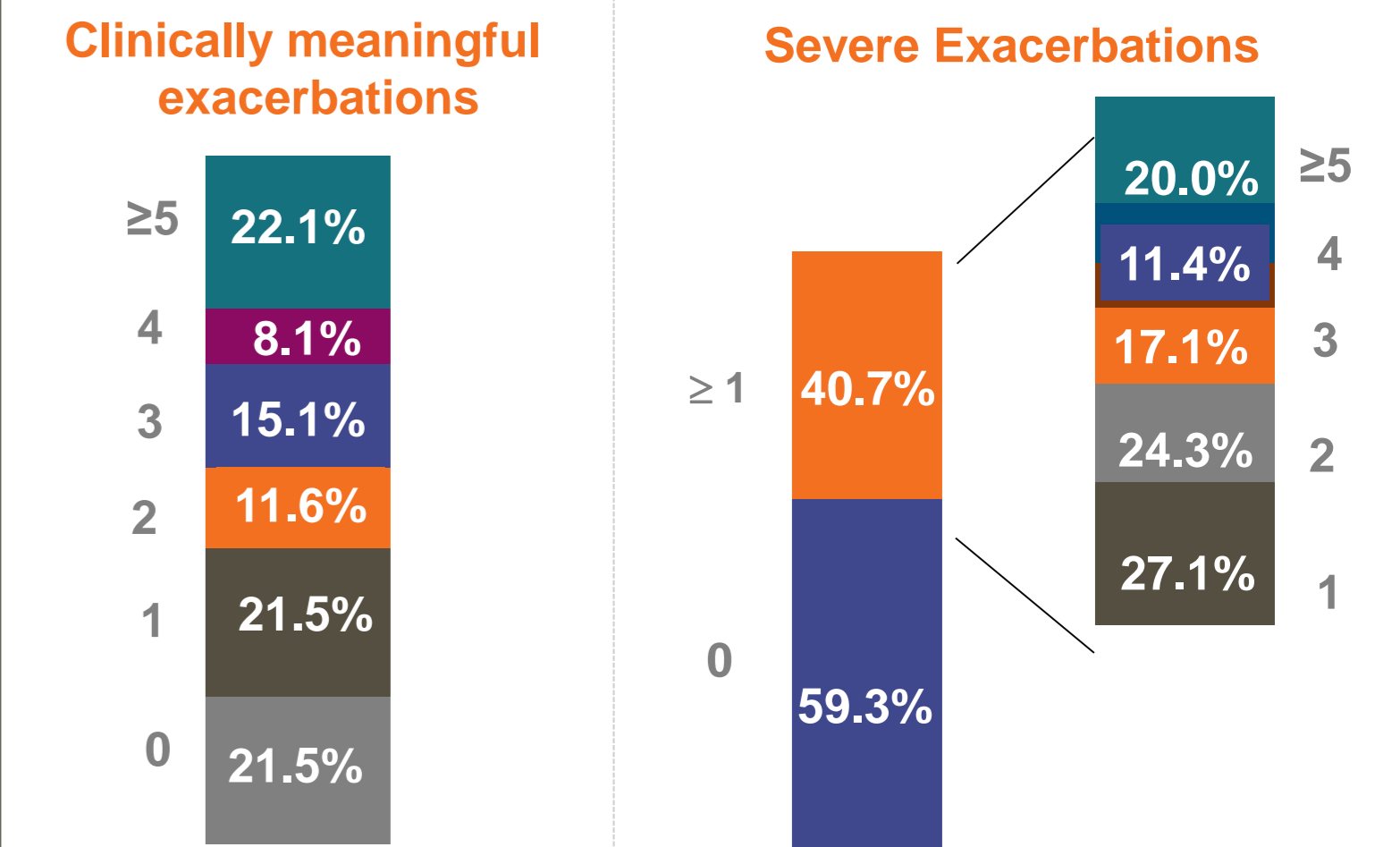
Information not available for 1.2%.

- Pulmonary function tests revealed that most patients (80.2%) had fixed airway obstruction.

Asthma Control

- The ACQ-6 mean score was 1.7 (SD 1.0), which means that most patients had their asthma uncontrolled. For patients who reported more than 4 exacerbations in the last year, the ACQ-6 mean score was higher, indicating uncontrolled symptoms of asthma (ACQ6 2.1±1.2).

Figure 1. Distribution of SA patients according to the number of exacerbations



Conclusions

SA patients followed in a reference center in Brazil, despite treatment according to the National guidelines, still have poor symptom control, with a considerable burden related to a high number of exacerbations. Specialized asthma management and novel treatment options are needed for this SA population sample.

References

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