

## Hot Topics in Bronchial Asthma

Christian Domingo, PhD<sup>1,2</sup>

<sup>1</sup>Pneumology Service, Corporació Sanitària Parc Taulí; <sup>2</sup>Medicine Department, Universitat Autònoma de Barcelona (UAB). Barcelona, Spain

Bronchial asthma is a disease with a prevalence of about 5.5% of the general population<sup>1</sup>. During the last two decades, new inhaled treatments have been marketed together with new and better administration devices and a new family of drugs has been introduced, the monoclonal antibodies included in what we call biological drugs. Despite all these advancements, asthma control remains an area for improvement.

The concept of asthma control is fundamental because it establishes a target for treatment, but despite the diversity of definitions, a high proportion of patients fail to achieve it. Pérez de Llano et al.<sup>2</sup> highlight the shortcomings of the current concept of control by discussing aspects such as the differences between patient- and physician-perceived control and the limitations of the tools used to assess it. They also comment on the drawbacks of the step-wise approach to achieve control recommended by guidelines, the lack of consideration of the different pharmacological properties of the currently available inhaled corticosteroids (ICS) as well as the existence of different asthma endotypes. Other practical aspects, such as adherence to medication, the use of rescue medication, the influence of the inhalation device, the particle size, the pharmacological characteristics, and the lung deposition of

ICS, are also mentioned and developed by Monserrate<sup>3</sup>.

From the therapeutic point of view, Estravís et al.<sup>4</sup> carry out an in-depth review and update of the sixth and last monoclonal antibody on the market, Tezepelumab, an anti-thymic stromal lymphopoietin antibody.

Finally, two relevant and not always well-understood aspects are discussed: asthma in the elderly and in obese patients.

Although for a long time, asthma was considered a childhood disease, it is now clear that the disease, although still underdiagnosed, is increasingly diagnosed in adults over 65 years of age, with an incidence similar to that shown in other age groups. González-Barcala et al.<sup>5</sup> recall that in the elderly population, asthma is more severe, with more frequent exacerbations and a higher mortality rate. They also delve into the pathophysiology, highlighting the relevance of two key processes: immunosenescence and anatomical and mechanical changes with a direct impact on lung function. The

Received: 24-07-2023

Accepted: 25-07-2023

DOI: 10.23866/BRNRev.2023-M0091

www.brnreviews.com

authors also stress that the management of these patients should pay special attention to polypharmacy and multimorbidity. On the other hand, Bantulà et al.<sup>6</sup> delve into an under-studied asthma phenotype, obesity-associated asthma. Obesity-induced inflammation, characterized by elevated pro-inflammatory cytokines and reduced anti-inflammatory adipokines, contributes to airway inflammation and asthma symptoms. Asthmatic patients with obesity often have a poor response to ICS, which are the mainstay of asthma treatment. The authors also deep into the beneficial effects of weight regulation through bariatric surgery.

In summary, this issue of the journal represents an update on aspects of asthma for which the literature is usually scarce. We believe that

the information provided is of great use to clinicians.

## REFERENCES

1. Domingo C, Sicras-Mainar A, Sicras-Navarro A, Sogo A, Mirapeix RM, Engroba C. Prevalence, T2-biomarkers and cost of severe asthma in the era of biologics: The BRAVO-1 study. *J Investig Allergol Clin Immunol*. 2022; Nov 22:0. Epub ahead of print.
2. Pérez de Llano L, Entreras LM, Carrascosa MI, Dávila I, Almonacid C, Abascal-Bolado B, et al. A new therapeutic approach based on a reinterpretation of asthma control. *BRN Rev*. 2023;9(2)
3. Monserrate DR. Inhaled treatments for bronchial asthma: molecules and devices. *BRN Rev*. 2023;9(2)
4. Estravís M, Dávila I, García-Sánchez A. Role of the TSLP and its receptor in the treatment of asthma. *BRN Rev*. 2023;9(2)
5. González-Barcala F, Calvo-Henriquez C, Martínez-Capoccioni G, Faraldo-García A. Asthma in the Elderly: Systematic Approach to Improve the Prognosis. *BRN Rev*. 2023 (9)2.
6. Bantulà M, Picado C, Arismendi E. Obese asthma syndrome, glucocorticoids, and vitamin d: mechanisms and implications. *BRN Rev*. 2023;9(2)

### Correspondence to:

Christian Domingo  
E-mail: cdomingo@tauli.cat