



## Editorial

### [Translated article] Asthma Exists in Older People too

### El asma en las personas mayores también existe



What has been called the “democratization of survival to old age” is probably the most important sociodemographic revolution ever witnessed by humanity (or at least by part of it).<sup>1</sup> In Spain, according to data from the National Institute of Statistics, on 1 January 2019 there were 9,057,193 people over the age of 65 (19.3% of the total population) and it is estimated that by 2068 this figure will exceed 14 million (almost 30% of the population).<sup>2</sup> This expanding time horizon, resulting from socioeconomic development and advances in public health and medical sciences, creates challenges not only for society, but also for individuals at a personal level.<sup>3</sup> Another emerging issue is that the characteristics of a significant number of diseases are changing, creating scenarios that are detrimental to the correct evaluation of those diseases.<sup>3</sup>

Asthma is a good example: this entity occurs in the over-65s with a prevalence of 6–10% (similar to that of young adults), predominantly among women, generating a considerable burden of disease. In this age group, however, it adopts particular characteristics that, in certain settings, complicate appropriate identification and management.<sup>4–6</sup> Patients are usually individuals whose asthma began years ago (in childhood or, more commonly, in adulthood), although the onset of asthma in people in their 60s is not unusual (60–100 cases per 100,000).<sup>4,7</sup> Furthermore, two thirds of the deaths attributed to asthma occur during this stage of life and the mortality rate is higher among asthma patients aged 65 years or over, largely associated with underlying cardiovascular processes, non-asthmatic respiratory pathology, and cancers.<sup>4–6</sup> This is not to say that all situations are always serious, but in many patients, the degree of airway obstruction is significant and reversibility is limited by the presence of bronchiectasis, the intensity of bronchial remodeling, or concomitant chronic obstructive pulmonary disease.<sup>8</sup> Finally, asthma in older individuals is associated with a substantial number of hospital admissions, longer stays, and significant direct economic costs.<sup>6,9</sup>

According to the current literature (extensively reviewed in reference 10), there are several reasons for this general scenario: (a) immunosenescence and the development of low-grade systemic inflammation; (b) modifications in pulmonary function over time, associated with progressive stiffness of the chest wall, loss of respiratory muscle strength, loss of parenchymal elastic recoil, and increased residual volume; (c) the tendency of many patients to

underestimate their dyspnea and minimize their symptoms; and (d) multimorbidity and associated polypharmacy that increases the risk of drug interactions. The significance of these factors differs from one individual to another, partly because the biological damage that accompanies aging (genomic instability, epigenetic modifications, loss of proteostasis, etc.) is neither linear nor uniform and its association with age measured in years is relative.<sup>11</sup> Not all older people are frail, and environment, health inequities, and personal behaviors, past and present, play a significant role in the phenomenon of aging.<sup>11,12</sup>

In any case, the fact is that asthma in older patients must be approached from a multidimensional perspective, taking into account treatable traits and identifying the barriers and limitations caused by comorbidities.

Clinical signs and symptoms are similar and when asthma is longstanding, it is most likely to still be asthma.<sup>10</sup> It will be a different issue if symptoms appear for the first time and, in both scenarios, we must ask if the objective evidence is consistent with the initial judgment. Confirmation requires the use of lung function tests (spirometry and bronchodilator testing, a bronchial challenge test or diffusion study, depending on the circumstances).<sup>10</sup> Spirometry is often difficult to perform in the elderly because it requires forced breathing maneuvers that they find difficult to perform and the resulting submaximal efforts prevent proper interpretation of the results. However, it should be noted that with dedicated, trained laboratory personnel, adequate results can be achieved in 80–90% of tests.<sup>13</sup> If spirometry is impossible, impulse oscillometry may be considered.<sup>14</sup> Although atopy is less common in older patients than in younger ones, the need for an allergy study must be assessed, depending on the history.<sup>10</sup>

In terms of treatment, the rationale does not differ substantially from recommendations for other stages of life, although it should be remembered that these patients are regularly excluded from clinical trials on the grounds of age or associated comorbidities. Except in the case of physical restriction or cognitive impairment, older asthma patients tend to show good therapeutic adherence (provided they receive appropriate, personalized training). Inadvertent non-compliance is more common, especially in the case of incorrect use of inhalation devices.<sup>10</sup> For this reason, special attention should be paid to the choice of inhalers, taking into consideration the inspiratory flow and the coordination capacity of each individual.<sup>10</sup> There is little evidence to support the safety and

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efficacy of biological drugs in older patients, but their use is not contraindicated.<sup>10</sup>

Finally, let's go back to the beginning. Someone once said that growing old is still the only way we've found to live long. This axiom, dripping with irony, fails to mention that aging and aging in the best possible health are two different things. Older asthma patients must be treated for their disease(s) and not sidelined because of their age, particularly because we are now facing a complex situation that will grow in magnitude, given the demographic predictions mentioned above. It therefore seems odd that asthma in older patients has received so little attention from pulmonologists, compared with childhood asthma, occupational asthma, and severe asthma, and that only certain guidelines devote a specific space to it.<sup>15</sup> The time has come to put things to right. Asthma exists in older people too, but it is often forgotten. Finally, we would just like to bring up another unresolved issue: what is the pathogenesis of asthma that starts after the age of 65?

## References

1. Pérez Díaz J. *La madurez de masas*. 1<sup>a</sup> edición Madrid: Ministerio de Trabajo y Asuntos Sociales; 2003.
2. Pérez Díaz J, Abellán García A, Aceituno Nieto P, Ramiro Fariñas D. Un perfil de las personas mayores en España, 2020. Indicadores estadísticos básicos. Madrid, Informes envejecimiento en Red n° 25.
3. Soler A, Rodríguez Mañas L. *Tratado de medicina geriátrica. Fundamentos de la atención sanitaria a los mayores*. 2<sup>a</sup> edición Barcelona: Elsevier España; 2020.
4. Gibson PG, McDonald VM, Marks GB. Asthma in older adults. *Lancet*. 2010;376:803–13.
5. Skloot GS, Busse PJ, Braman SS, Kovaks EJ, Dixon AE, Vaz Fragoso CA, et al. An official American Thoracic Society workshop report: Evaluation and management of asthma in elderly. *Ann Am Thorac Soc*. 2016;13:2064–77.
6. Dunn RM, Busse PJ, Wechsler ME. Asthma in the elderly and late-onset adult asthma. *Allergy*. 2018;73:284–94.
7. Jones SC, Iverson D, Burns P, Evers U, Caputi P, Morgan S. Asthma and ageing: an end user's perspective. The perception and problems with the management of asthma in the elderly. *Clin Exp Allergy*. 2011;41:471–81.
8. Reed CE. Asthma in the elderly: diagnosis and management. *J Allergy Clin Immunol*. 2010;126:681–7.
9. Martínez-Moragón E, Serra-Batlles J, De Diego A, Palop M, Casan P, Rubio-Terrés C, et al. Coste económico del paciente asmático en España (estudio AsmaCost). *Arch Bronconeumol*. 2009;45:481–6.
10. Perpiñá M, Gómez Bastero A, Trisán A, Martínez Moragón E, Álvarez Gutiérrez FJ, Urrutia I, et al. Documento de consenso de expertos para el control del asma en personas mayores. *Med Clin (Barc)*. <https://doi.org/10.1016/j.medcli.2021.04.028>.
11. López Otín C, Blasco MA, Partridge L, Serrano M, Kroemer G. The hallmarks of aging. *Cell*. 2013;153:1194–217.
12. Organización Mundial de la Salud. Informe mundial sobre el envejecimiento y la salud 2015. [www.who.int/ageing/publications/world-report-2015/es/](http://www.who.int/ageing/publications/world-report-2015/es/) [accessed February 2022].
13. Bellia V, Scichilone N, Battaglia S. Asthma in the elderly. *Eur Respir Mon*. 2009;43:56–76.
14. Usefulness of impulse oscillometry for the assessment of bronchodilator response in elderly patients with chronic obstructive airway disease. *J Thorac Dis* 2019;11:1485–94.
15. Global Initiative for Asthma. *Global Strategy for Asthma Management and Prevention*, 2021. Available from: [www.ginasthma.org](http://www.ginasthma.org).

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