

Smoking and asthma control

Tabagismo e controle da asma brônquica

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Limited control of asthma constitutes a serious health problem worldwide. Various factors, such as environmental changes and patient lifestyles, are likely responsible for the minimal success of attempts to control asthma. Consequently, asthma control is the central focus of the updated version of the Global Initiative for Asthma Guidelines, which encourage physicians to concentrate on evaluating the degree of asthma control, defined by the symptoms and pulmonary function, as well as by the presence or history of exacerbations.⁽¹⁾ Similarly, the smoking epidemic remains a public health concern worldwide, and exposure to tobacco smoke makes it even more difficult to control symptoms in patients with asthma.⁽²⁾

In recent decades, we have observed major advances in the understanding of the physiopathology of asthma and great improvements in the medications used in its control. However, it is known that there is great individual variability in the treatment response, which involves genetic and environmental factors. In general, clinical trials of asthma treatments exclude smoking patients due to the risk of including patients with COPD. Therefore, little is known regarding the treatment response of this specific group of patients.⁽³⁾

In Brazil, the difficulty in controlling asthma can be accentuated if we consider that most patients with asthma are not adequately monitored, evaluations often being performed by non-specialized physicians. This also takes place in developed countries. In a recent study evaluating more than 10,000 patients with asthma, it was reported that the disease was uncontrolled in 59% of the patients, well controlled in 19% and totally controlled in only 23% [sic]. In addition, the study indicated that poorly controlled asthma is more common among smoking patients than among nonsmoking patients.⁽⁴⁾

There has been a significant decrease in the prevalence of smoking, especially in developed countries. This decrease is due to the implementation of appropriate policies for its control, which has not occurred in most developing

countries. It is currently estimated that active smokers account for approximately one third of the adult population worldwide, and that approximately 50% of the global population is exposed to cigarette smoke in the environment, which is especially harmful to children. Even more serious is the fact that, even in developed countries, approximately 30% of all adults with asthma smoke regularly, presenting worse control of asthma symptoms when compared with nonsmokers.⁽⁵⁾

Asthma and smoking interact significantly, since smoking increases and aggravates the asthma symptoms, making it difficult to control those symptoms, as well as accelerating the loss of pulmonary function and worsening patient quality of life. It is also known that smoking increases the metabolism of theophylline, and, more importantly, that asthma patients who smoke are less sensitive to the beneficial effects of inhaled and oral corticosteroids. This can be explained by the potential of cigarette smoke to alter the airway inflammation observed in asthma, as well as to increase bronchial hyperresponsiveness.⁽²⁾ We call attention to the fact that smoking has a persistent negative effect on the treatment response in patients with uncontrolled asthma, even after smoking cessation.⁽⁶⁾ It is also documented that passive smoking plays a fundamental role in the development and severity of asthma in children.⁽⁷⁾ Therefore, smoking has a significant impact on public health, since it increases asthma morbidity and is the single most preventable independent risk factor for poor asthma control.

In this edition of *The Brazilian Journal of Pulmonology*, Dias Jr et al.,⁽⁸⁾ of the University of São Paulo, report the results of an uncontrolled open cross-sectional study, in which volunteers with asthma who were under regular treatment at an asthma outpatient clinic were evaluated in terms of the prevalence of active smoking and exposure to cigarette smoke. The fact that the prevalence of smoking in this group of asthma patients was only 3% was surprising. This is in disagreement with the international statistics,

in which the prevalence of smoking in asthma patients is similar to that seen in the general population—approximately 30%.⁽⁵⁾ The fact that the group studied was composed predominantly of patients with moderate and severe asthma might partially explain the low prevalence reported. However, we believe that this might also reflect the result of the anti-smoking campaigns, which are spreading throughout Brazil, as perhaps evidenced by the high prevalence of former smokers (33%) found in the study sample. This high proportion former smokers is noteworthy if we consider that smoking is the single most preventable risk factor for asthma and for poor asthma control.⁽⁹⁾ Another significant finding of the study was that 53% of the population evaluated had been exposed to environmental cigarette smoke. This finding is in accordance with those in the international literature, which indicates that 50% of the world population is exposed to tobacco smoke, in the home environment, at work or at locales where leisure activities are pursued.⁽¹⁰⁾ This underscores the ever-increasing need to fight for the creation of smoke-free environments, thereby protecting patients with asthma, as well as the entire nonsmoking population, from passive exposure to tobacco smoke.

Finally, it is important that all of us, physicians and other health professionals, definitively agree that smoking is a chronic, curable disease (drug dependence), far from being only a bad habit. Therefore, we must incessantly encourage smokers to quit. In Brazil, even pulmonologists are guilty of not doing this often enough.

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