

# Intermittent to Mild Asthma: The Need for Continued Treatment

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Asthma is a chronic inflammatory disease of an airway characterized by recurrent attacks of airflow obstruction that is at least partially reversible.<sup>1,2</sup> This definition implies that asthma can be completely reversible. Therefore, most patients with asthma (except those with severe or difficult-to-treat asthma) show the greatest improvement of symptoms in the first few months of therapy. Many newly diagnosed asthma patients irregularly or hardly follow the treatment advice of a physician due to the definition and clinical course of asthma.<sup>3,4</sup>

According to the Global Initiative for Asthma (GINA) guideline and the Expert Panel Report 3, the goal of therapy in patients with asthma is to achieve asthma control. Asthma classification by severity (previously introduced by the previous GINA documents) is less important than before; however, it is still useful to decide the management at the initial assessment of a patient or when required to characterize a group of patients with asthma who are not in treatment. Recently, the severity of asthma means the intensity of the treatment required to achieve good asthma control.<sup>5</sup>

This issue of *Allergy, Asthma & Immunology Research*, Kang and colleagues<sup>6</sup> evaluated patients who were newly diagnosed with asthma at a university hospital and were lost to follow-up within 3 years. The authors revealed that 73.9% of patients were lost to follow-up within 3 years and they were younger and had a lower severity of asthma at the time of diagnosis compared with those who had continued management at the hospital. They also showed that 63.3% of non-adherents (who responded to the telephone survey) had not taken any controller mainly due to improved symptoms. Those who did not follow up at the hospital but continued treatment at other hospitals were comparable to those that continued follow-up. Half of the survey respondents answered that the reason to discontinue treatment was due to the long distance to the hospital. Subsequently, the non-treatment group had distinctive characteristics of a young age, best FEV1 and highest PC20 of methacholine, compared to the previous 2 groups. The non-treatment group had intermittent or mild persistent severity of asthma at the time of

diagnosis and none of them reported aggravation of asthma despite non-treatment.

My colleagues analyzed the characteristics of drop-out patients compared with those who maintained attendance in the COhort for Reality and Evolution of Adult Asthma in Korea (COREA).<sup>7</sup> Forty-four percent of the initial participants dropped out from the cohort in the first 18 months. Non-adherents (versus adherents) had a lower mean age, a shorter duration of treatment and lower physician-assessed severity of asthma; in addition, they used fewer controllers and experienced fewer exacerbations. The findings suggest that newly diagnosed patients as well as those previously diagnosed with asthma tend to have lower adherence to their treatment if they have a lower severity of asthma.

The updated GINA guideline recommends controller treatment for 1 year even if the patient achieves asthma control and has no symptoms on the lowest dose of controller.<sup>1</sup> However, the evidence of this recommendation is the lowest level and based on a panel consensus judgment. Asthma control can deteriorate in weeks to months when an inhaled steroid discontinued.<sup>8</sup> There were non-responders to the telephone survey (in contrast to the current guideline or the previous report); however, this retrospective observational study identified no aggravation of asthma control in patients with mild asthma after they stopped the controllers themselves. This provides clinically valuable information in the context of the discrepancy between the doctor's recommendation and the patient's accordance. The choices by patients could be reasonable in light of economic costs and a possible adverse effect caused by unnecessary treatment if they had intermittent or mild persistent asthma.

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A limitation of this study was that the authors did not evaluate any previous exacerbations or any recurrences of asthma. The diagnosis of asthma was based on the bronchodilator/methacholine challenge testing as they described; however, episodic recurrences/exacerbations of the obstructive symptoms were necessary for the diagnosis of asthma. Frequent exacerbation of asthma is one of the important future risks in asthma control; subsequently, we cannot exclude the possibility that the diagnosis of the subjects included in this study may consist of asthma as well as asthma-like conditions that could show positive results to bronchodilator/Methacholine challenge testing.<sup>9-11</sup> For example, a patient with postviral airway hyperresponsiveness could be included in this retrospective cohort and then show no recurrent symptom with no treatment.

Further studies focused on mild asthma are necessary to identify patients that require continued treatment despite achieving prolonged asthma control. In terms of the heterogeneity of asthma, developing biomarkers and indices to distinguish the need-to-treat patients could be essential for an optimized and personalized management.

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