Beneficial Effect of Combination Therapy with Ozagrel and Pranlukast in Exercise-induced Asthma Demonstrated by Krypton-81m Ventilation Scintigraphy—A Case Report


Abstract

Introduction: We evaluated the effect of combination therapy with thromboxane A₂ synthesis inhibitor and leukotriene receptor antagonist in a patient with exercise-induced asthma using krypton-81m ventilation scintigraphy. Clinical Picture: In a patient with exercise-induced asthma, we found exercise-induced abnormalities of respiratory function test and ventilation scintigraphy, and increases in plasma concentrations of thromboxane B₂ and leukotriene C₄ with exercise. Treatment: A thromboxane A₂ synthesis inhibitor (ozagrel) and a leukotriene receptor antagonist (pranlukast) were prescribed. Outcome: After treatment for 2 weeks, abnormalities of respiratory function test and ventilation scintigraphy improved. Conclusions: The combination therapy with ozagrel and pranlukast might be useful for the relief of symptoms in patients with exercise-induced asthma, and krypton-81m ventilation scintigraphy could be a useful tool for visible evaluation of treatment.


Key words: Leukotriene C₄, Leukotriene receptor antagonist, Thromboxane A₂ inhibitor, Thromboxane B₂