13-1 The effects of daily bathing on the symptoms of the patients with bronchial asthma

Mitsuhiro KAMIMURA
Pulmonology Department, National Hospital Organization Disaster Medical Center, Tokyo, Japan

Objects: Bathing is unavoidable activity in our daily life. The influence of bathing for asthma patients is yet not fully known till now. In Japanese Guideline for Asthma Prevention and Management, the vapor inhalation during bathing is counted for one of the triggering factors for asthma exacerbation, and its mechanism is thought to be due to the bronchoconstriction triggered by the stimulation of hypotonic aerosols to the airway. We conducted the observational study to investigate the situation concerning of the change of the symptoms and its degree by bathing in asthmatic patients.

Patients and methods: The questionnaire focusing on the bathing-induced symptom change and its degree, the contributing factors was made and asked to the asthmatic patients in outpatient department of our institute from January 2012 to November 2013.

Results: Total of 215 cases were recruited. Sixty cases (27.9%) experienced the appearance of the asthmatic symptom. The extent of the symptoms included 20 cases of chest discomfort (33.3%), 19 cases of cough (31.7%), and 21 cases of wheezing (35.0%). In 38 cases (63.3%) the symptoms was seen only when they had asthma exacerbation, and in 22 cases (36.7%) the symptoms appeared even their asthma status was stable. There were no relationship between asthma severity and the appearance of the bathing-induced symptoms and its degree. The triggering factors included vapor inhalation (32 cases, 53.3%), water pressure to the thorax (26 cases, 43.3%), followed by sudden change of the air temperature (16 cases, 26.7%). In 9 cases who had bathing-induced asthmatic symptoms, the timing of regular inhalation of inhaled corticosteroid and long-acting beta-agonist combination was shifted from after to before bathing, and in 8 cases the appearance of the symptoms was prevented successfully. In 38 cases (17.7%), the asthmatic symptoms were improved by bathing. The vapor inhalation was the most common contributing factor (34 cases, 89.5%), followed by warming whole body (13 cases, 34.2%). In 27 cases (71.1%) the improvement of the symptoms was partial and symptoms did not disappear completely, and in 11 cases (28.9%) the wheezing disappeared completely. There was no relationship between asthma severity and improvement of the symptoms.

Conclusion: The effects of bathing to asthmatic patients widely differed from patient to patient and its etiology includes several factors. The vapor inhalation worked as triggering factor in some and as reliever in the others, thus suggested the heterogeneous nature of bronchial asthma. In the patients who suffer from appearance of the asthmatic symptoms from bathing, the preventive method such as beta-agonist pre-inhalation should be taken into consideration. Those whose symptoms are improved by bathing might be expected to respond better than the rest by hot spring therapy of asthma.

Keywords: Vapor inhalation, Asthma, Exacerbation, Bathing