

EFFICACY OF BALNEOTHERAPY IN BRONCHIAL ASTHMA – A SYSTEMATIC REVIEW–

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Abstract

Introduction: Asthma is one of the most frequent chronic diseases worldwide, which affects about 300 million people. Asthma was defined by the Global Initiative for Asthma (GINA) as a heterogeneous disease, (usually) characterized by chronic airway inflammation and a history of respiratory symptoms that vary in intensity with time, including wheezing, breathing difficulties and cough, along with a variable limitation of expiratory air flow. There are few published randomized trials regarding the efficacy of a multimodal pulmonary rehabilitation program in asthma, all of them having certain methodological limitations, so they were not taken into consideration in the development of international evidence-based guidelines for asthma. The objective of this retrospective analysis was to investigate the efficacy of balneotherapy in bronchial asthma.

Materials and methods: To perform this review, we searched Medline, Cochrane, ISI and Scopus databases for randomized clinical trials and meta-analyses relevant for this subject over the past 4 decades. The topics included in the search were: climatotherapy in asthma, halotherapy and salt mine therapy for respiratory diseases, aerosol therapy with hypertonic saline solution in bronchial asthma, and the use of sulfur, chlorine-sodium, bicarbonate, iodine, bromine and radon mineral waters in the form of aerosols for the treatment of bronchial asthma.

Results: The German National Asthma Disease Management Guidelines recommend pulmonary rehabilitation in patients with asthma if the physical, mental or social consequences of the disease are compelling and persist during daily life despite adequate medical therapy. The efficacy of the essential individual components of pulmonary rehabilitation, such as patient education, respiratory physiotherapy, aerobic exercise training, was evidenced in several controlled randomized trials. Also, a limited number of observational studies published in the international literature showed positive effects regarding quality of life, clinical symptoms, physical function, exacerbations and the use of health care resources. As part of pulmonary rehabilitation, balneotherapy using salt mine therapy, halotherapy, and chlorine-sodium, sulfur, iodine, bromine mineral waters has a special place. Fundamental studies in favor of thermal treatment have generated only indirect opinions. Following the inquiry conducted by the French National Health Care Service in 3000 patients over a 3-year period starting with 1983, it was found that this treatment reduces medical consumption, the number of physician visits and hospital health care in many cases.

Conclusions: The efficacy of treatments with natural therapeutic factors in bronchial asthma can be demonstrated. However, further randomized trials, including in our country, as well as the preparation of patients for continuing medical rehabilitation in spa resorts for the treatment of respiratory diseases are required.