

THE EFFECT OF HALOTHERAPY IN CHILDREN- OUR EXPERIENCE

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Abstract

Halotherapy is a therapy method based on beneficial effects of dry salt aerosol that achieves positive effects on numerous body organs, especially on the respiratory system by inhaling the same. The goal of this research is to monitor the influence of halotherapy on children with asthma, pollinosis, recurrent obstructive bronchitis, atopic dermatitis, secretion otitis, recurrent laryngitis and chronic rhinitis. The two year study included 73 children (5 months -- 18 years) suffering from the mentioned diseases. Along with the research conducted on children, the influence of halotherapy was investigated on human lung fibroblast cell cultures. Halotherapy was done in the salt chambers and salt cabins where the dry salt aerosol generated by salt generator, was inhaled by the subjects. The halotherapy showed positive effects in patients with pulmonology and allergy diseases seen by reduced symptoms of the disease and drug prophylaxis. Within the group of children, suffering from asthma and recurrent obstructive bronchitis 7 out of 24 patients stopped the drug prophylaxis after the halotherapy and the symptoms haven't returned in the next year. In 9 out of 24 patients, halotherapy reduced the drug prophylaxis and the symptoms haven't returned in the next year. Out of total 12 pollinosis patients, 3 of them were without any symptoms and drug prophylaxis during the pollination. Two out of these 12 were without the usual recurrent respiratory obstruction during the pollination with the drug prophylaxis. Six out of 12 patients had minimum symptoms with the occasional drug therapy. One out of 12 patients did not manage to control the disease with the drugs and halotherapy. At the children with atopic dermatitis SCORAD index varied from 20 to 61.8 (average of 36.74) before the halotherapy and after the therapy it was from 3 to 50 (average 21.85) which was the evidence of the clinical improvement of the patients. A part of the respiratory patients noticed the improvements of symptoms and local test results. The best results (strengthened by in vitro results of slight stimulation of human fibroblast proliferation) have been noticed on the salt concentration applied at the children suffering from asthma. All the stated results are encouraging and demand more clinical studies as well as mechanistic molecular studies in order to understand mechanisms by which these positive effects are achieved, as well as all the possibilities of the halotherapy applications.

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Abstract

Introduction: The aim of the study was to evaluate the effect of the aerosol treatment on the symptoms of children with chronic obstructive pulmonary disease (COPD) and the severity of the disease.

Active participants: 10 children with COPD, aged 5-10 years, were included in the study.

Methods: The study was conducted in a randomized, controlled manner. The children were divided into two groups: the control group and the treatment group.

Results: The results of the study showed that the aerosol treatment significantly reduced the symptoms of COPD in the treatment group compared to the control group.

Conclusion: The aerosol treatment is an effective method for reducing the symptoms of COPD in children.

Keywords: COPD, aerosol treatment, children, symptoms, severity.

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1. Cough, wheezing, and shortness of breath.

2. Frequent respiratory infections.

3. Poor growth and development.