Halotherapy as asthma treatment in children: A randomized, controlled, prospective pilot study.

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Abstract

BACKGROUND AND OBJECTIVES: Asthma is a chronic inflammatory disorder requiring intermittent or continuous anti-inflammatory therapy. Patients often turn to alternative treatments as complements or replacements to conventional treatments. We aimed to evaluate the effect of salt room chambers (halotherapy) on bronchial hyper-responsiveness (BHR), fractional exhaled nitric oxide (FeNO), and quality of life in children with asthma.

PATIENTS AND METHODS: Children aged 5-13 years with a clinical diagnosis of mild asthma not receiving anti-inflammatory therapy. Patients were randomized in this double-blind, controlled study to salt room with halogenerator (treatment group), or without halogenerator (control group). We evaluated the effect of salt room therapy on BHR, FeNO, spirometry, and pediatric asthma quality of life questionnaire (PAQLQ). The treatment period lasted 7 weeks, 14 sessions.

RESULTS: Twenty-nine patients were randomized to the salt room with halogenerator (treatment group), and 26 patients to the salt room without salt halogenerator (control group). A statistically significant improvement in BHR was demonstrated in the treatment group, which remained unchanged in the control group. There was no improvement in spirometry or FeNO levels following treatment. The treatment group showed a statistical improvement in most parameters of quality of life questionnaires.

CONCLUSIONS: Our pilot study suggests that salt room with halogenerator, may have some beneficial effects in mild asthmatic children. Randomized and larger controlled trials with long-term follow-up are necessary. Pediatr Pulmonol. 2017;52:580-587. © 2016 Wiley Periodicals, Inc.

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KEYWORDS: airway hyper-reactivity; asthma; fractional exhaled nitric oxide; halotherapy; metacholine challenge test

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