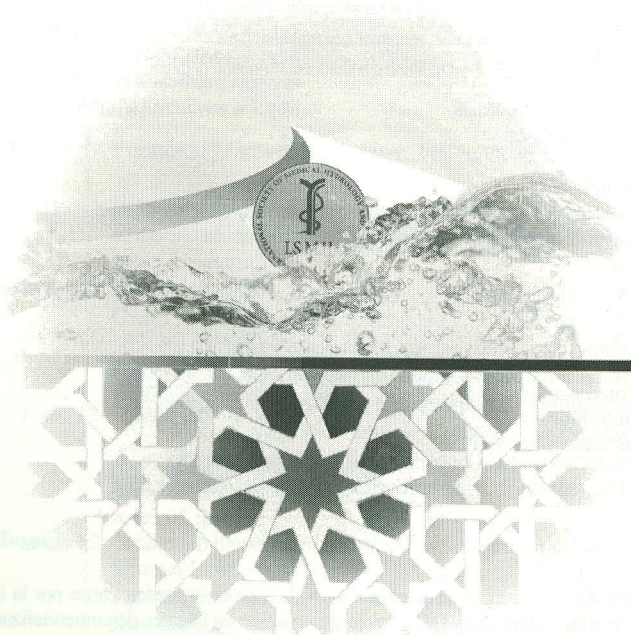


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Halotherapy in Rehabilitation of Patients with Chronic Obstructive Pulmonary Disease

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Introduction and Objectives

The main objective was to estimate the efficacy of halotherapy -inhaled dry sodium chloride aerosol (DSCA) - in rehabilitation therapy (RT) of patients with chronic obstructive pulmonary disease (COPD).

Materials and Methods

It was double-blind placebo study. 72 patients (pts) with moderate and mild stage of COPD were recruited. They were randomized in 2 groups - halotherapy group (HT) (21 m, 18 f, 60.3±10.8 yrs) and control group (CG) (22 m, 11 f, 58.5±8.9 yrs). All patients received RT: daily procedures of chest massage, light radiation, physical exercises. Pts of HT group were treated with the procedures of halotherapy (45 min twice a day for 14 days). DSCA containing particles with size of 1-5 m and level of mass concentration in the room of 10-15µm/m³ was produced by halogenerator GDA-01.17 (Halomed, Lithuania). CG received placebo (inhalations with room air) instead of DSCA. Clinical, functional parameters and measures of health-related quality of life (HRQL) by SF-16 and LCQ (10 items) were estimated after RT procedures and in 3 months.

Results

Improvements of clinical symptoms scores were observed in the both groups after the course of RT ($p < 0.05$), but in 3 months positive effect was noticed only in IG (before-13.8±5.4, after RT- 9.1±4.9, in 3 months -9.6±4.3, $p < 0.05$). Measures of LCQ were changed significantly after RT only in pts of IG, received DSCA (35.2±5.2 and 52.4±6.3, $p < 0.05$). Positive changes of physical functioning measures were observed (SF-16) in IG and CG groups after RT, but they have been kept till 3 month only in IG.

Conclusions

Application of halotherapy, using DSCA, on the background of the RT in pts with COPD renders to positive effect.

Keywords: Movement Halotherapy, Dry Sodium Chloride Aerosol, Chronic Obstructive Pulmonary Diseases (COPD)