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Title: Halotherapy – A possible method to enhance airway treatment on patients with obstructive pathology

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Body: Introduction: The clinical benefits of halotherapy is advocated, but the mechanisms are scarcely studied and there is not enough available clinical data. Halotherapy may influence mucolysis, antibacterial and anti-inflammatory actions, also the immunomodulator - hyposensibilizing agents. We conducted a perspective study where we use a dry-salt inhaler on patients with asthma and COPD. Methods: The study was double-blind, randomized trial, single crossed, conducted for 4 months with 4 visits (V1 - V4). The total patient population - 128 individuals (76 - asthma and 52 - COPD stages II and III) was divided in 2 arms, crossed after first visit (V1). We instructed the patients to use the salt-inhaler 20 minutes/day. We analyzed the evolution of spirometry parameters FVC, FEV1 and PEF and a Quality of Life Questionnaire with 5 items concerning: the quality of sleep and the simptomatology. Results: The study revealed an improvement of all spirometry parameters after the first month of treatment with salt aerosols versus placebo. The final data showed an overall improvement of FVC by 4%, 14% improvement of the FEV1 and 25% improvement of PEF parameter - showing significant improvement in asthma patients condition. Correlating quality of life responses we found out that they were improved throughout the study by 24% showing a significant impact on the quality of life. Conclusions Correlating both the improvements of spirometry parameters and the scores from the QoL questionnaire we found that the NaCl aerosols from a dry salt inhaler (home halotherapy) seems to be efficient versus placebo when added to regular bronchodilatory medication but further studies are necessary.