

EFFECTS OF UJJAYI PRANAYAMA TRAINING ON SELECTED VENTILATORY FUNCTION TEST IN PATIENTS WITH BRONCHIAL ASTHMA

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ABSTRACT

Background: Bronchial asthma is a common disease and an important cause of morbidity among both children and adults. Ujjayi Pranayama training (UPT) is a technique of controlling and modulating breath, a process through which one attains a state of deep rest, yet active state of mind.

Objectives: the study aims to evaluate effects of UPT on forced vital capacity and forced expiratory volume in first second as well as the percentage between them in asthmatic patients.

Participants: Forty patients (25 men and 15 women) who suffered from controlled mild bronchial asthma for at least 8 years, age ranged from 30 to 40 years participated in this study. Patients were randomly assigned into; experimental group that included 20 asthmatic patients (12 men and 8 women), and control group that included 20 asthmatic patients (13 men and 7 women).

Methods: In both groups patients received the same diaphragmatic breathing (DB) exercises and the same asthmatic medications. Experimental group received UPT in addition to other interventions. Exercises in both groups were done for 3 sessions weekly over 8 weeks. Spirometer was used to measure forced vital capacity (FVC), forced expiratory volume in first second (FEV1) and their ratio FEV1/FVC.

Main Outcomes Measures: the two groups were evaluated pre-training and after 2 months of training by using computerized spirometer for measuring forced vital capacity, forced expiratory volume in first second and the percentage of FEV1/FVC

Results: the experimental group showed that there is significant increase in both forced vital capacity and forced expiratory volume in first second than the control group ($P>0.05$). Both groups significantly improved in all parameters after 2 months.

Conclusions: This study showed that UPT, combined with medical treatment and DB exercises, improves FVC, FEV1 and FEV1/FVC % in patients with bronchial asthma.

Key words: bronchial asthma, Ujjayi Pranayama training, forced vital capacity, diaphragmatic breathing