The Effect of Acupressure on Ding Chuan (定喘 EX-B1) Acupuncture Point on Forced Vital Capacity in Healthy Subjects

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Keywords:
Acupressure
Ding Chuan
EX-B1

Introduction
Acupressure is a noninvasive technique used to manage various symptoms. It doesn’t require the use of needles and minimizes the risk of inadvertent puncture of internal organs or pneumothorax. The application technique is easy to learn and so subjects could self-administer acupressure at home. Applying acupressure over multiple acupuncture points has been reported to improve clinical outcomes including improved pulmonary functions and reduced dyspnea. EX-B1 was the most commonly used acupuncture point in traditional Chinese medicine for the management of dyspnea. It is highly accessible for self-administration of acupressure. However, the effect of single acupuncture point application on EX-B1 has not been explored yet. Based on the current available evidence, multiple acupuncture points are being used for acupressure application in the purpose of improving lung function which is time consuming. There was a need to develop a simple, non-invasive, time saving and preferably home-based program to improve the pulmonary function.

Objectives
To investigate the effect of a 4 weeks program of acupressure over EX-B1 on forced vital capacity (FVC) in healthy subjects.

Methodology
This study employed a single-blinded, randomized controlled trial design. Eighteen healthy subjects were recruited and randomly allocated into either acupressure group (over EX-B1) (n=9) or sham acupressure group (over sternum where no acupuncture point exists) (n=9). Both groups received 4 weeks of 2-minute daily self-administer acupressure with slow motion kneading using thumb over the selected acupuncture area. FVC was measured using a spirometer on pre-treatment, 2-week and 4-week time.

Result
Eighteen subjects with a mean age of 32.78 ± 12.74 years in acupressure group and 34.89 ± 11.53 years in sham acupressure group participated in the study. There was no statistically significant interaction between the groups and time on FVC (p = 0.543). The main effect of time on FVC at the different time points was not statistically significant (p = 0.142).

Four weeks of daily 2-minute application of acupressure over EX-B1 may not have a positive influence on FVC in healthy subjects. Further randomized controlled trial is needed to investigate the optimal protocol for improving the lung function in healthy subjects and in patients with chronic obstructive pulmonary disease.