

Pulmonary functions of children with asthma improve following massage therapy.

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Abstract

OBJECTIVES:

This study aimed at evaluating the effect of massage therapy on the pulmonary functions of stable Egyptian children with asthma.

DESIGN:

This study was an open, randomized, controlled trial.

SETTINGS/LOCATION:

The study was conducted in pediatric allergy and chest unit of the New Children's Hospital of Cairo University, Egypt.

SUBJECTS AND INTERVENTIONS:

Sixty (60) children with asthma were divided randomly into two equal groups: massage therapy group and control group. Subjects in the massage therapy group received a 20-minute massage therapy by their parents at home before bedtime every night for 5 weeks in addition to the standard asthma treatment. The control group received the standard asthma treatment alone for 5 weeks.

OUTCOME MEASURES:

Spirometry was performed for all children on the first and last days of the study. Forced expiratory flow in first second (FEV1), forced vital capacity (FVC), FEV1/FVC and peak expiratory flow (PEF) were recorded.

RESULTS:

At the end of the study, mean FEV1 of the massage therapy group was significantly higher than controls (2.3-0.8 L versus 1.9-0.9 L, $p=0.04$). There was no significant difference in FVC (2.5-0.8 L versus 2.7-0.7 L, $p=0.43$). However, FEV1/FVC ratio showed a significant improvement in the massage therapy group (92.3-21.5 versus 69.5-17, $p<0.01$). PEF difference was not significant (263.5-39.6 L/minute versus 245.9-32 L/minute, $p=0.06$).

CONCLUSIONS:

A beneficial role for massage therapy in pediatric asthma is suggested. It improved the key pulmonary functions of the children, namely, FEV1 and FEV1/FVC ratio. However, further research on a larger scale is warranted.

PublishedIn: J Altern Complement Med. 2011 Nov;17(11):1065-8