**Response of Small Airway Ventilation to Positive Expiratory Pressure Breathing Exercise and Low Intensity Laser Therapy in Asthmatic Children**

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**ABSTRACT**

**Background:** children with bronchial asthma have poor ventilation in small airway which gradually impairs their overall physical ability and reduces heath related quality of life. Its prevalence is high and its economic impact is great.

**Objective:** To determine the effectiveness of positive expiratory pressure breathing (relatively a

traditional modality) and low intensity laser therapy (relatively a new modality) in improving small airway ventilation (the greatest affected area in the lung) and reduction of asthmatic attacks in children with bronchial asthma.

**Methods:** Thirty children with mild asthma 16 boys and 14 girls there age ranged between 10-15 years were participated in the study was divided into two equal groups the experimental group received positive expiratory pressure breathing and low intensity laser therapy plus current medical treatment. While the control group received only current medical treatment. The program continued for one month.

**Results:** There was a greater significant increase in small airway ventilation and reduction of asthmatic attacks in the experimental group than control group (P<0.05).

**Conclusion:** Both positive expiratory pressure breathing and low intensity laser therapy could be considered as a valid and effective modalities as combined in the medical treatment in management of asthmatic children.

Bull.Fac. Ph. Th. Cairo Univ.,:

Vol. 8 No (2) Jil. 2003