

## عنوان مقاله:

Positive Expiratory Pressure (PEP) versus Conventional Chest Physiotherapy in Pediatric Patients with Acute Exacerbation of Cystic Fibrosis

## محل انتشار:

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## خلاصه مقاله:

Background Pulmonary involvement is the main cause of mortality in cystic fibrosis (CF). Airway clearance techniques are non-pharmacological complement options for CF patients. The aim of this study was to evaluate the short-term outcome of airway cleaning treatment in patients with cystic fibrosis in a children s hospital. Materials and Methods This clinical trial study conducted on 40 CF patients referring to the specialized lung clinic of Tabriz Pediatric Center in Tabriz, Iran from April 2016 to April 2017. Patients were randomly divided into two equal case (PEP), and control (conventional) groups. The basic spirometry parameters were measured on the European Respiratory Society criteria. After therapeutic intervention, the patients were followed for the next six months and the number of hospital admissions were recorded. Results The mean of FEV1, FEV1/FVC and FEF25%-75% in the control group after treatment were  $62.60 \pm 20.39$ ,  $86.70 \pm 19.39$  and  $55.20 \pm 32.78$ , respectively. Comparison of the control group means of FEV1, FEV1/FVC, and FEF25%-75% in the case group after intervention ( $57.52 \pm 14.62$ ,  $76.80 \pm 21.83$  and  $59.8 \pm 28.71$ , respectively) showed significant differences ( $p < 0.05$ ). The number of re-hospitalization during the following six months in the case and the control groups were  $1.4 \pm 1.23$  and  $2.00 \pm 0.64$ , respectively, which was significantly different ( $p = 0.00$ ). Conclusion The patients undergoing treatment (PEP and control groups) showed better spirometry results. In the PEP group, the number of re-hospitalizations was significantly lower than the control group

## کلمات کلیدی:

Cystic fibrosis, Lung injury, Pediatrics, Positive expiratory pressure

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