Abstract

Background: One of the measures of the pulmonary function is the peak expiratory flow (PEF) that can be defined as the major flow obtained in an expiratory pressure after a complete inspiration to the level of the total lung capacity. This measure depends on the effort and strength of expiratory muscles, the airway diameter and the lung volume. Objective: To compare the results of the peak expiratory flow in healthy male and female obtained in a seated position and dorsal decubitus (DD), right lateral decubitus (RLD) and left lateral decubitus (LLD). Method: Thirty young subjects with mean age 22.7 years, healthy and non-smokers were included at the study, 15 of male sex. They did spirometry and IPAQ questionnaire to check the normal pulmonary function and physical activity level. The measures of PEF were performed in four positions, being performed 3 measures in which position, in a random order. Statistical analysis was performed according to Student’s t test, with significance level set at 5%. Results: There was a difference between the values obtained in sitting position (481±117.1 L/min) with DD (453.2±116.3 L/min) and RLD (454±112.9 L/min) (p<0.05), however, did not find a significant difference between the sitting position and LLD (469±83 L/min). Conclusions: Body position affects the values of PEF, with decreasing values in DD and RLD. The LLD can be an alternative to optimize the expiratory flow in situations of constraint to the sitting position.

Keywords

Peak expiratory flow rate, meter, physical therapy.