Abstract

Thesis objective: This thesis focuses on postural and respiratory functions in adult patients with cystic fibrosis. Furthermore, it studies observations of common features in body posture.

Finally, this thesis tries to evaluate life quality of patients with cystic fibrosis despite the fact of small experimental sample group used.

Methods: between the years 2013 and 2014, 10 adult patients with cystic fibrosis diagnosis who were hospitalized at the department of tuberculosis and respiratory diseases at Motol hospital were examined. All examined patients belonged to the age category 18 to 30 years old. Methods used in examining the patients included spirometry, spine dynamic test, posture assesment software and at the end of all examinations a standardized questionnaire was given to all patients to evaluate the life quality of patients with CF (questionnaire of cystic fibrosis).

Results: a common manifestation was the barrel-shaped thorax that increases its size in the anteroposterior direction, which causes thoracic kyphosis, shoulder protraction, stiffness of the ribcage and hyperlordosis of the lumbar spine.

Conclusion: Patients with cystic fibrosis are to be found in all ranges of pulmonary functions. The most common complaint is the cough that distinctly affects their life quality (sleep interruption, fatigue, frequent need for hospitalization). After observation I completely agree with the findings of Hodges et al. from the year 1995 that clearly show the dual function of the central nervous system (respiratory and postural) in coordinating the muscles of the trunk. During intensive breathing the trunk muscles tend to partly ignore their natural postural reaction. Insufficient pulmonary function causes postural defects that lead to back pain.

Key words: Cystic fibrosis, posture, respiratory function, life quality