E-Poster

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Respiratory Muscle Function in Cystic Fibrosis Patients in the Era of CFTR Modulator Therapies: Preliminary results of a Case-Control Study

Topic: Health Conditions (Nervous System, Musculoskeletal System, Cardiopulmonary System)

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BACKGROUND

The objective of this study was to analyze respiratory muscle function in children and adolescents with cystic fibrosis (CF) treated with Elexacaftor/Tezacaftor/Ivacaftor (ETI) compared to healthy individuals.

METHODS

A descriptive, observational, cross-sectional study was conducted with patients with CF treated with ETI aged 6-18 years. Lung function, maximal expiratory and inspiratory pressures (MIP and MEP), diet quality (KIDMED) and physical activity levels (PAQ) were assessed. The student's t-test or the Mann-Whitney U test were used to compare differences between groups. The effect size was calculated with the Cohen's d. Significance level was set as a p value < 0.05.

RESULTS

A total of 48 children and adolescents (60.4% male) were analyzed in the study (24 healthy and 24 CF). The participants with CF had mild pulmonary involvement. There were no significant differences between the MEP and MIP assessment between groups (MEPmax p = 0.440, MIPmax p = 0.206). Patients with CF showed lower KIDMED (p = 0.022) and PAQ (p = 0.010) scores. Moreover, the children and adolescents with CF in this study showed higher MIP and MEP values compared to studies conducted before the era of ETI modulators.

CONCLUSION

Despite these slight differences in lifestyle, the null hypothesis is supported, based on the premise that the new drugs, in addition to improving pulmonary function, also enhance respiratory muscle function in children and adolescents with CF.

Statement of Disclosures

None

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