

Introduction and aim

Chronic obstructive pulmonary disease (COPD) is an increasing and debilitating pulmonary disease. In majority of studies was observed that many patients with COPD (especially patients in end stage) have the degree of myopathy and muscular atrophy which reduces their quality of life and has doubled their problems. Hence, we have examined the musculoskeletal system of patients with COPD in this study.

Material and Methods

Current study is descriptive and analytical and carried out on patients with COPD referred to pulmonary clinic. Then a questionnaire containing demographic data (age, gender, smoking duration, p/y count, BMI, etc.) was completed by interviewing. Then patients underwent the spirometry with and without bronchodilator to evaluate lung function, puls oximetry to evaluate severity of hypoxia and EMG-NCV for neuromuscular disorders; obtained data with spirometry and puls oximetry data were entered in above check lists and finally were analyzed by SPSS v16 statistical soft ware.

Results

In this study, data from 40 patients were analyzed that all of them were men with mean age 64.40 ± 11.98 years and average of smoking duration P/Y 34 ± 13.91 . 35% of patients were with overweight and 17.5% were obese. The mean of FEV1 was 44.45%, the mean FVC was 60.08% and the mean FEV1/FVC was 56.75%. Based on GOLD criteria, 40% were in step two, 42.5% in step three and 17.5% in step four. Based on MMRC criteria 37.5% were also in step one. In this study found that 45% are suffering from carpal tunnel syndrome. After examining the EMG-NCV was observed that only one patient was with disorder in sense of median, 3 patients were with abnormal limb F-wave and 2 patients with abnormality in tibial nerve wave. It was also observed there were a significant relationship between severity of disease and tibial wave amplitude ($p=0.024$), between FEV1 and tibial wave amplitude ($p=0.003$) and between upper limb F-wave ($p=0.046$) and FEV1/FVC.

Conclusion

The results of this study showed that in patients with COPD, neuropathy is uncommon complication and inflammatory in this disease does not lead to neuropathy in patients.

Key words: neuromuscular complications, chronic obstructive pulmonary disease