

European Respiratory Society Annual Congress 2012

Abstract Number: 3604

Publication Number: P1194

Abstract Group: 9.2. Physiotherapists

Keyword 1: Exercise **Keyword 2:** Skeletal muscle **Keyword 3:** COPD - management

Title: Muscle function in patients with COPD

Dr. Margareta 20665 Emtner margareta.emtner@neuro.uu.se^{1,2}, Mr. Mikael 21051 Andersson mikael.andersson@neuro.uu.se^{1,2}, Ms. Anne Marie 21050 Grönberg annemarie.gronberg@vgregion.se³, Mrs. Linda 21052 Moberg linda.moberg@vgregion.se⁴, Dr. Frode 20666 Slinde frode.slinde@nutrition.gu.se³ and Prof. Ulla 21057 Svantesson ulla.svantesson@fhs.gu.se⁴.¹ Neuroscience, Physiotherapy, Uppsala University, Uppsala, Sweden, 75124 ; ² Medical Science, Respiratory Medicine and Allergology, Uppsala University, Uppsala, Sweden, 75185 ; ³ Clinical Nutrition, Sahlgrenska Academy, Gothenburg University, Gothenburg, Sweden and ⁴ Clinical Neuroscience and Rehabilitation, Sahlgrenska Academy, Gothenburg University, Gothenburg, Sweden .

Body: Introduction: Patients with COPD are likely to decrease their level of physical activity due to dyspnea which often results in impaired muscle function. The aim of this study was to make a survey of muscle function in patients with COPD and to relate these findings to health related quality of life. Methods: One hundred patients with COPD (FEV1 % predicted, 43±17, stage II-IV) (59 % women) with a mean age of 64±7 years for the women and 67±6 years for the men participated in the study. All patients carried out performance based tests including isometric muscle strength of the quadriceps muscle, hand grip strength, and 30 meter walking test (self chosen and maximal speed). Health related quality of life was assessed with SF-36 and SGRQ. Results: Muscle strength in the quadriceps muscle reached 85 % in patients with COPD in comparison with a reference group of healthy persons. Comparable values for hand grip strength were 90 % and walking speed 74-80 %. Maximal walking speed correlated with SF-36 (r=0.38, p<0.001) and SGRQ (r=0.36, p=0.001). Conclusion: Muscle function is generally impaired in patients with COPD, and should be measured in addition to lung function.