European Respiratory Society
Annual Congress 2013

Abstract Number: 4165
Publication Number: P1296

Abstract Group: 9.2. Physiotherapists
Keyword 1: COPD - management **Keyword 2:** Rehabilitation **Keyword 3:** Respiratory muscle

Title: Effects of inspiratory muscle training and respiratory exercise at muscle function, thoracoabdominal mobility and dyspnea in patients with COPD

Prof. Dr Renata 26263 Basso-Vanelli renata.fisio@gmail.com [1], Prof. Dr Eloisa 26264 Regueiro eloregueiro@yahoo.com.br [1,2,3], Ms. Ivana 26265 Labadessa ivlabadessa@gmail.com [1], Prof. Dr Valéria 26266 Di Lorenzo vallorenzo@ufscar.br [1], Prof. Dr Mauricio 26267 Jamami jamami@ufscar.br [1] and Prof. Dr Dirceu 26301 Costa dcosta@uninove.br [1,4]. [1] Physiotherapy, Universidade Federal De Sao Carlos, Sao Carlos, Sao Paulo, Brazil ; [2] Physiotherapy, Centro Universitário Unifafibe, Bebedouro, Sao Paulo, Brazil ; [3] Physiotherapy, Centro Universitário Claretiano, Batatais, Sao Paulo, Brazil and [4] Physiotherapy, Universidade Nove De Julho, Sao Paulo, Brazil .

Body: Background: as a method of therapeutic approaches to respiratory muscles we found in the literature the inspiratory muscle training (IMT) and respiratory exercises (RE). Even the RE is a method well used in the clinical practice, it is necessary scientific evidence, especially regarding the difference that could be observed when compared the RE to IMT. Aims: to compare the effects of IMT and RE added to physical training (PT) as to gain strength and endurance of the inspiratory muscles, thoracoabdominal mobility and dyspnea in COPD patients. Methods: 25 patients completed the study: 13 (67.5 ±12.8 years; FEV1, 46.9±18.5 % predictive) composed IMT group (GPT+IMT) and 12 (mean ± SD age, 66±7.6 years; FEV1, 36.1±9.7% predictive) RE group (GPT+RE). Patients were assessed before and after 48 sessions of training; spirometry; measures of maximum inspiratory (MIP) and expiratory pressure (MEP), inspiratory muscle endurance test in which it was determined the sustained maximum inspiratory pressure (SMIP) and the limit time (Tlim), cirtometry and reported the modified Medical Research Council (mMRC). Results: both groups showed significant increased ($p<0.05$) strength and endurance of the inspiratory muscles, thoracoabdominal mobility. The GPT+IMT showed higher increase of MIP, SMIP, abdominal mobility values and decreased in the mMRC score. Conclusion: both interventions showed gain strength and endurance of the inspiratory muscles and thoracoabdominal mobility. Although, only the GPT+IMT showed clinically rise in the inspiratory muscle strength and endurance due to specificity of training, which caused larger fall of dyspnea.