Title: Association of post-traumatic stress disorder and number of exacerbations in COPD patients

Dr. Paulo 23947 Teixeira paulozt@gmail.com MD †, Dr. Lucia 23946 Porto luciapporto@cpovo.net MD †, Prof. Dr Christian 23948 Kristensen christian.kristensen@pucrs.br ‡, Mr. Alvaro 23949 Santos ahs_fisio@hotmail.com †, Dr. Pedro 23951 Lima paspl@uol.com.br MD ‡ and Dr. Sérgio 23950 Menna Barreto smenna@terra.com.br MD ‡. † Respiratory Medicine, Santa Casa de Porto Alegre e UFCSPA, Porto Alegre, RS, Brazil and ‡ Post Graduation in Medical Clinic, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil.

Body: Background: Post-traumatic stress disorder (PTSD) is a common psychological consequence of exposure to traumatic stressful life events. There is an association of trauma exposure and PTSD with airflow limitation that could be mediated by inflammatory processes. During COPD exacerbations, dyspnea described as a suffocation, can be considered a near-death experience, which can lead to PTSD. The aim of this study was to evaluate the relationship between exacerbations and PTSD. Method: Thirty-six COPD inpatients with exacerbation were screened regarding the following domains (and instruments): PTSD (Screen for Posttraumatic Stress Symptoms), anxiety (Beck Anxiety Inventory) and depression (Beck Depression Inventory). Patients had a mean age of 69.5± 9.6 years and 69.4% were female. Results: Mean FEV1 and FVC were 0.82±0.31 (37.8±14.7% of predicted) and 1.77±0.63 (61.7±18.2% of predicted), respectively with a mean exacerbation of 2.7 episodes over the past year. PTSD was found in 39.5% of patients (SPTSS mean score 7.1±4.4); moderate to severe depression in 63% (BDI mean score 21.6±12.6) and moderate to severe anxiety in 55% (BAI mean score 23.1±12.6). In a linear regression model, exacerbations significantly predicted PTSD scores: each exacerbation increased 1.34 points in SPTSS scores; F(34)=9.29; p=0.004. Significant correlations were detected between PTSD and anxiety (rs=0.61; p<0.001) and PTSD and depression (rs=0.68; p<0.001). Conclusion: PTSD symptoms increase as the patient's exacerbations number increases and respiratory function worsens. Overall, these findings suggest that psychological domains should be addressed along with respiratory function and exacerbations in COPD patients.