

4<sup>th</sup> International Conference on

# CHRONIC OBSTRUCTIVE PULMONARY DISEASE

May 29-31, 2017 Osaka, Japan

## Differences in cognitive profile in patients with asthma and Chronic Obstructive Pulmonary Disease (COPD)

Abdellah Ali, Al-Amir Mohammed and Salwa Mourad  
Sohag University, Egypt

**Objective:** Multiple cognitive problems are commonly associated with asthma and Chronic Obstructive Pulmonary Disease (COPD), especially in severe forms.

**Aim:** The aim of this study was to assess the effect of COPD and asthma on cognitive status using Montreal cognitive assessment (MoCA) questionnaire and auditory event related potential, P300 test.

**Methods:** We analyzed the differences in MoCA score and P300 latency between 40 patients with COPD, 40 patients with asthma and 20 healthy subjects (control group) were included in this study; and, also the correlation between these scores and patient characteristics parameters.

**Results:** Patients with COPD had significant prolonged P300 latency ( $P < 0.04$ ) and reduced MoCA scores compared to asthma ( $P < 0.002$ ). 34 out of 40 COPD patients had prolongation of P300 latency and reduced MoCA scores. However, 20 out of 40 asthma patients had prolongation of P300 latency and 24 out of 40 asthma patients had reduced MoCA scores. P300 latency correlated significantly with age ( $P < 0.007$ ), duration of disease ( $P < 0.0001$ ), PaO<sub>2</sub> ( $P < 0.001$ ), SaO<sub>2</sub> ( $P < 0.003$ ) and FEV<sub>1</sub>/FVC ( $P < 0.026$ ) in COPD group. MoCA score was significantly correlated with WBC ( $P < 0.003$ ) in COPD group and with BMI ( $P < 0.05$ ) in asthma group. We did not observe statistically significant correlation between P300 abnormalities and patients' characteristics in asthma group ( $P > 0.05$  for all).

**Conclusions:** COPD significantly decreases the cognitive status compared to bronchial asthma.

abdellahhamed@yahoo.com