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Title: Assessment of cognitive functions in stable COPD patients using PGI Memory Scale and to analyze for their correlation with patients' characteristics and BODE index

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Body: Background: COPD is a multisystem disorder with significant extrapulmonary manifestations. Aims: To assess cognitive functions in stable COPD patients using PGI Memory Scale Questionnaire [PGIMSQ] and to seek for any correlation with patients' characteristics and BODE index variables. Methods: We included 200 stable COPD patients and 50 healthy volunteers [HV]. Their baseline characteristics and BODE index variables were assessed. PGIMSQ was used to assess cognitive functions under 10 subsets (shown in Table 1). Results: The age of subjects in COPD Group was 61.37 ± 7.4 year, and of those in HV group was 59.76 ± 7.21 year. 105 COPD patients (52.5%) were having PGIMSQ scores beyond ± 3 SD of HV scores. PGIMSQ scores are shown in Table 1.

Table 1

PGIMSQ Subsets [Max. score]	COPD group	HV group
Remote memory [6]	3.56±1.12	4.64±0.49
Recent memory [5]	3.96±0.49	4.30±0.46
Mental balance [9]	6.48±1.56	8.08±0.88
Attention and concentration [15]	9.68±3.07	13.08±0.72
Delayed recall [10]	6.06±1.35	7.40±0.49
Immediate recall [12]	7.24±1.09	8.34±0.48
Verbal retention for similar Pair [5]	3.68±0.74	4.16±0.37
Verbal retention for dissimilar Pair [15]	5.92±1.56	7.22±0.93
Visual Retention [13]	6.04±1.44	7.62±0.49
Recognition [10]	5.48±1.13	6.30±0.46
PGIMSQ score [100]	57.5±11.49	69.7±3.75

Age, duration of illness, MMRC dyspnea and BODE index scores had inverse correlations with PGIMSQ scores. FEV_1 and distance walked in six minute had positive correlations with PGIMSQ scores. Conclusions: We observed a global decline of cognitive functions in COPD group and observed their significant correlations with age, duration of illness and BODE index variables.