Method:
300 seconds of eyes-closed, resting-state EEG from 37 MCI-LB and 36 MCI-AD patients were analysed. EEGs were visually assessed for the presence of diffuse, focal, and epileptiform abnormalities, overall grade of abnormalities and focal rhythmic delta activity (FIRDA). Random forest classifiers to discriminate MCI-LB from MCI-AD were trained on combinations of visual EEG, quantitative EEG and structural MRI features. Quantitative EEG features (dominant frequency, dominant frequency variability, theta/alpha ratio and measures of spectral power in the delta, theta, prealpha, alpha and beta bands) and structural MRI features (hippocampal and insular volumes) were obtained from previous analyses of our dataset.

Results:
Most patients had abnormal EEGs on visual assessment (MCI-LB = 91.9%, MCI-AD = 77.8%). Overall grade (X^2 (73, 2) = 4.416, p = 0.110), diffuse abnormalities X^2(73,1) = 3.790, p = 0.052, focal abnormalities X^2 (73,1) = 3.113, p = 0.077 and FIRDA X^2(73,1) = 0.862, p = 0.353 did not differ between groups. All multimodal classifiers had similar diagnostic accuracy (area underthe curve, AUC = 0.681 - 0.686) to a classifier that used quantitative EEG features only (AUC =0.668). The feature 'beta power' had the highest predictive power in all classifiers.

Conclusion:
Visual EEG assessment was unable to discriminate between MCI-LB and MCI-AD. However, future work with a more sensitive visual assessment score may yield more promising results.A multimodal EEG-MRI approach does not enhance the diagnostic value of quantitative EEG alone in diagnosing MCI-LB.
(326 words)

559 - Neuropsychiatric symptomatology after severe COVID-19 in older survivors

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Background: The coronavirus disease 2019 (COVID-19) has rapidly spread worldwide, leading to increased concerns about long-term patients' neuropsychiatric morbidity. Currently, there is still few data regarding mental health after hospital discharge of severe COVID-19 elderly patients. Considering this, the present study aims to characterize the neuropsychiatric morbidity in old severe COVID-19 patients.

Methods: In the context of an ongoing multidisciplinary research project, this study analyzed a subsample of patients aged ≥60 years, admitted due to COVID-19, during the first wave, in the Intensive Care Medicine Department (ICMD) of a University Hospital in Porto, Portugal. ICMD length of stay (LoS) ≤24h, terminal illness, major auditory loss or inability to communicate at the time of follow- up were used as exclusion criteria. Participants were evaluated by telephone in average 99 (±32) days after being discharged from the hospital, with Six-item Cognitive Impairment Test, PatientHealth Questionnaire and Generalized Anxiety Disorder Scale. Sociodemographic and relevant clinicaldata were obtained from hospital electronic records and clinical interview.

Results: A sample of 39 survivors with a mean age of 70 (±6.3) years old were assessed. The majority were male (62%), married (64%), retired (77%), with low educational level (59%), and 15% lived alone. The average number of comorbidities and the daily medications per patient were 4.7 (±1.7) and 5.5 (±3.5), respectively.

During ICMD stay, 69% had nosocomial infections and 56% delirium. Deep sedation was used in 74% of the patients (mean=30 days) and 74% needed Invasive Mechanical Ventilation. ICMD mean LoS was33 (±28.3) days. Based on follow-up assessment, 18% of survivors had cognitive impairment, whereas23% and 15% had depressive and anxiety symptoms, respectively. A positive and high correlation between depression and anxiety was found (r_s=0.792; p<0.001). No significant associations were observed with cognitive impairment.

Conclusions: The presence of this symptomatology may hinder a successful recovery once the patient is discharged back home. This is particularly relevant accruing the strong relationship between depressive and anxious symptoms found in this sample. Therefore, early screening and timely multidisciplinary support interventions to minimize these neuropsychiatric symptoms after discharge should be considered in order to achieve positive health outcomes.