### Case report:

An 85-year-old man, with several cerebrovascular risk factors (dyslipidaemia, atrial fibrillation, previous ischemic-stroke), developed cognitive impairment after an acute confusional state (two years before), characterized mainly by short-term memory deficit and executive dysfunction. In the meantime, he started recurrent periods of multimodal hallucinations, with predominant sundowning pattern, along several months, comprising complex visual hallucinations, with which he interacted, sometimes combined with haptic hallucinations, describing a plastic sensation in his hands, and manifesting carphologia and psychomotor agitation. Insight into the hallucinatory nature of the phenomenon recovered after a few hours. The neurologic examination revealed partial left oculomotor nerve palsy (left exotropia and diplopia on the right conjugate eye movement), postural instability, slight truncal bradykinesia, and symmetrical rigidity. The neuroimaging studies confirmed small vessel disease with leukoaraiosis and lacunar infarcts in the lentiform nuclei. No lesions were observed within the visual pathway nor the midbrain.

### **Discussion:**

This case leads to an interesting discussion regarding the differential diagnosis of combined hallucinations in elderly.

The presence of the oculomotor nerve palsy selectively affecting somatic fibers, raised the suspicious of peduncular hallucinosis, in the framework of vascular disorder. Combination of visual and tactile may occur in peduncular hallucinosis. However, the neuroimaging studies did not reveal ischemic lesions in the midbrain. Therefore, the most plausible aetiology for hallucinations is a demential syndrome, namely a vascular dementia, considering the findings on neuroimaging. Additionally, a Lewy-body disease (LBD) cannot be ruled out by virtue of the clinical picture of recurrent well-formed visual hallucinations, symptom fluctuation and slight parkinsonism, or even a Lewy-body variant of Alzheimer disease, considering the presence of amnestic symptoms. Tactile hallucinations have been described in alfa-synucleinopathies. Contrarily to Parkinson disease, when the LBD patients touch their visual hallucinations, the perceived objects often do not disappear and may experience specific texture and thermic sensations.

Future research would benefit from a more detailed investigation of the profile of similarities and differences in hallucinations across clinical disorders to facilitate differential diagnosis.

**Keywords:** complex visual hallucinations; haptic hallucinations; Lewy-body dementia; Lewy-body variant of Alzheimer disease, peduncular hallucinations.

## 556 - THE IMPACT OF COVID-19 PANDEMIC ON ELDERLY'S MENTAL HEALTH

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**Background:** Since the disease caused by the SARS-Cov-2 virus was declared a pandemic by the World Health Organization, countries around the globe adopted measures of social distancing to limit the spread of the virus. Although social distancingmeasures are essential preventive mechanisms, they can promote feelings of loneliness and influence the onset or exacerbation of psychiatric disorders. Current knowledge about the impact of COVID-19 on mental health - and in particular on mental health of the geriatric population - is still scarce.

**Research Objective:** The present review aimed to analyze the COVID-19 pandemic impact on the elderly's mental health and to suggest measures that can mitigate this impact.

**Method:** A non-systematic review of the literature, through bibliographic research in Pubmed and Embase databases - using the keywords "COVID-19", "SARS-CoV-2", "Coronavirus", "Aging", "Older adults", "Elderly", "Quarantine" and "Mental health" -was performed.

**Preliminary results of the ongoing study:** The available literature points towards a likely increase in mental disorders as a result of the COVID-19 pandemic. This phenomena may be particularly relevant in the elderly population. Several measures – pharmacological and non-pharmacological – can help to maintain the physical and mental health of the elderly.

**Conclusion:** The COVID-19 pandemic had an important impact in elderly's mental health. This subject should be addressed by profissionals / caregivers and measures tominimize negative consequences are in order.

# 557 - Generalized anxiety disorder in older adults: acceptability of guided self-help by a lay provider and preference among different treatment modalities

Anne-Julie Gagné, Philippe Landreville, Patrick Gosselin, Pierre-Hugues Carmichael

A cognitive-behavioral guided self-help conducted by lay providers (CBT-GSH-LP) had been shown to be effective in treating anxiety and may help facilitate access to treatment. The first objective of this study was to assess the acceptability the CBT-GSH-LP for the Generalised Anxiety Disorder in adults aged 60 and over. Its acceptability was compared to that of the same treatment conducted by a psychotherapist (CBT-GSH-PSY) and to that of a face-to-face cognitive behavioral therapy with a psychotherapist (CBT- PSY). The second objective was to assess the preference of the participants for these treatment modalities. As a secondary objective, variables potentially associated with acceptability or preference were explored, as well as reported reasons for treatment preference. Participants were recruited in community centers and private residences. They had to complete a sociodemographic questionnaire, read descriptions of the three treatments, and complete the Treatment Evaluation Inventory for each one, then to place those treatment in order of preference as well as indicating the reason for their preferred treatment. ANOVAs were performed to identify differences in acceptability scores between the three treatment modalities and proportions were calculated for preferred treatment and reasons associated. CBT-GSH-LP was considered moderately acceptable by participants (N = 116; mean age =

70.5 years), although significantly less acceptable than the other two treatment modalities. In addition, the proportion of participants who found CBT-GSH-LP to be at least moderately acceptable was high (59,3%), although lower than that of the other two treatment modalities (CBT-GSH-PSY: 85,8%; CBT-PSY: 91,2%). Consequently, the preferred treatment of participants was CBT-PSY followed by CBT-GSH-PSY, then CBT-GSH-LP. Among participants preferring CBT-GSH-LP, its long-lasting effect, ease of access,

training of the therapist, required patient involvement, and autonomy afforded by treatment were the top reasons. Regarding characteristics, the results show that single and widowed older adults considered CBT-GSH-LP more acceptable than married, divorced, or separated people. Thus, although it is not the preferred treatment modality for older adults, CBT-GSH-LP is acceptable and would benefit from being better known and used for generalized anxiety disorder.

## 558 - MULTIMODAL EEG-MRI IN THE DIAGNOSIS OF MILD COGNITIVE IMPAIRMENT WITH LEWYBODIES

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### **Background:**

Differentiating mild cognitive impairment with Lewy bodies (MCI-LB) from mild cognitive impairment due to Alzheimer's disease (MCI-AD) is challenging due to an overlap of symptoms. Quantitative EEG analyses have shown varying levels of diagnostic accuracy, while visual assessment of EEG may be a promising diagnostic method. Additionally, a multimodal EEG-MRI approach may have greater diagnostic utility than individual modalities alone.

## **Research Objective:**

To evaluate the utility of (1) a structured visual EEG assessment and (2) a machine learning multimodal EEG-MRI approach to differentiate MCI-LB from MCI-AD.