

503 - Informal antidepressant strategies in nursing homes: Two Group Concept Mapping studies among residents, their relatives, and professional caregivers

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Background: Although formal treatments like antidepressants and psychotherapy may effectively reduce depression in nursing home residents, side effects and poor treatment adherence are common. To improve depression care, it is important to also learn from informal strategies already used successfully in daily practice, alongside or in absence of formal treatment. For example, although not prescribed as formal treatment, a care provider may seat a resident with depression at a table near the window. This may have antidepressant effects due to extra day light or pleasant views from the window.

Objectives: To identify, categorize, and prioritize informal antidepressant strategies for residents already used in daily practice as reported by residents themselves, their relatives, and professional caregivers.

Method: In the first Group Concept Mapping study, residents, relatives, and professional caregivers ($N = 124$) brainstormed on strategies to prevent or improve depression that may be performed by residents themselves. In the second study, the same participants ($N = 110$) reported on strategies others involved in residents' lives could perform. In a second round of both studies, participants rated the expected effectiveness ($N = 54$, $N = 51$ respectively) and feasibility ($N = 50$ for both studies) of the strategies mentioned. In addition, strategies for both studies were sorted based on similarity in meaning by experts.

Results: Six clusters appeared for actions to be undertaken by residents themselves, and five clusters for actions by others. The results showed that, for strategies by residents, the clusters 'Being socially connected' and 'Participating in activities', and for strategies by others, the cluster 'Offering personal

attention' stand out the most in terms of high expected effectiveness. The cluster with strategies executed by residents that stood out as the most feasible was 'Having a healthy living environment'. The most feasible clusters performed by others were 'Offering personal attention', 'Using positive treatment/approach', and 'Using or adapting the physical environment'.

Conclusion: By using an innovative bottom-up participatory approach, this research shed light on various clusters of useful informal antidepressant strategies for daily practice. To test effectiveness and implementation, research is needed on these antidepressant strategies and their regular use in care.

504 - Periodontal Disease and Risk of Dementia in Medicare Patients with Hepatitis C Virus

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Objective: To examine whether periodontal disease increases the risk of developing Alzheimer's disease and related dementias (ADRD) among hepatitis C patients in Medicare claims data.

Background: Periodontal disease and hepatitis C virus (HCV) represent chronic infectious states that are common in elderly adults. Both conditions have independently been associated with an increased risk for dementia. Chronic infections are thought to lead to neurodegenerative changes in the central nervous system possibly by promoting a proinflammatory state. This is consistent with growing literature on the etiological role of infections in dementia. No studies have evaluated the association of periodontal disease with dementia in HCV patients.

Methods: We used Medicare claims data for HCV patients to assess the incidence rate of ADRD with and without exposure to periodontal disease between 2014 and 2017. Diagnosis of periodontal disease, HCV, and ADRD were based on ICD-9 and ICD-10 codes. A Cox multivariate regression model was used to estimate the association between periodontal disease and development of ADRD, controlling for age, gender, race, ZIP-level income and education, and medical comorbidities.

Results: Of the 440,578 patients in the dataset, the incidence rate of ADRD in the periodontal disease group was higher compared to those without periodontal disease (10.77% vs. 9.27%, $p < 0.001$), and those with periodontal disease developed ADRD earlier compared to those without periodontal disease (1.15 vs. 1.78 years, $p < 0.001$). The hazard of developing ADRD was 1.23 times higher in those with periodontal disease (95% CI, 1.19 to 1.27, $p < 0.001$) after adjusting for all covariates, including age.

Conclusion: Periodontal disease increased the risk of developing ADRD in HCV patients in a national Medicare claims dataset.

505 - Reversible Dementia caused by Hypothyroidism – a case report

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OBJECTIVES: Reversible causes are thought to explain about eight percent of all dementias. Hypothyroidism is one of the most important causes of potentially reversible dementia. Deficits in memory, psychomotor slowing, general intelligence, and visuoperceptual skills are particularly involved and may not fully recover. We review a clinical case of a reversible dementia caused by hypothyroidism, in a patient followed in our institution.

METHODS: Case report using clinical files, and brief literature review using Pubmed database, searching for the keywords "reversible dementia", "hypothyroidism" and "psychosis".

RESULTS: We present a case of a 76-year-old female patient admitted in our acute unit with visual and auditory hallucinations and persecutory delusional ideation for 1 month. There was no previous psychiatric history. The patient was fully oriented in space, time and person, but there were clear memory deficits and sensitivity to antipsychotics. We used the Montreal Cognitive Assessment (MoCA) and the Frontal Assessment Battery (FAB), having the patient scored 17 on the former and 3 on the latter, failing in all tests except for grasping. On the blood tests, fT3 and fT4 levels were near 0 and TSH was 40 $\mu\text{g/dL}$. We then discovered that the patient had a thyroidectomy 25 years ago and had been doing replacement treatment since then but had discontinued treatment on the previous six months. We also did magnetic resonance imaging that showed frontal microcirculatory changes but without clear atrophy. The patient was treated with aripiprazole 30mg and levothyroxine 0,150mg, being discharged after 1 month, without psychotic symptoms. About 1 year after, we repeated MoCa and FAB, scoring 27 and 16, respectively. The psychotic symptoms didn't recur even after the antipsychotic discontinuation.

CONCLUSION: We present a case of hypothyroidism induced dementia with psychotic symptoms, that fully recovered with thyroid replacement treatment, without previous neurological or psychiatric history.