The effectiveness and long-term prognosis of the intravenous course of cerebrolysin in patients with the amnestic MCI

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Early diagnosis and treatment in the predementia stage of Alzheimer’s disease, i.e. in amnestic MCI (aMCI) may improve patient quality of life and promote slowing of conversion to dementia. The purpose of the study was to analyze the effectiveness and long-term prognosis of the course of cerebrolysin therapy in aMCI patients. Twenty elderly aMCI patients were included in the study and treated with a 20-day course of therapy with daily intravenous infusions of 30 ml cerebrolysin. Cognitive functions were assessed by the battery of neuropsychological scales and tests: MMSE, MoCA-test, MDRS, the Boston naming test, the Clock Drawing Test, Frontal Assessment Battery, the test “10 words”, the Digit Repetition Test. The level of the auto-antibodies to a short peptide fragment of the neurotrophins P75 receptor has been investigated by ELISA in the patient blood serum 3 times per 6 months (0, 10 and 26 weeks). Analysis of the data showed a statistically significant improvement in psychometric tests at the therapy end and also at 10 and 26 weeks of the study. Long-term therapeutic effect (5 months) proved to be significantly correlating with the following parameters: patient’s age older than 70 years, basic indices of the MoCA-test and the test “memory” of the dementia Matisse scale. The decline serum level of autoantibodies to the fragment 155–164 receptor of neurotrophins P75 also provided to be an indicator of the long-term effectiveness of the therapy. These results could determine those aMCI patients who could have positive long-term therapeutic effect following cerebrolysin treatment.

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Health care should be improved to provide better response to this type of patients.  

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**EW0205**

**Effects of smartphone-based memory training for older adults with subjective memory complaints**

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**Introduction** Brain health has garnered increasing attention as a requisite condition for healthy aging. The rapid growth in mobile health and increasing smartphone ownership among older adults has paved the way for smartphones to be utilized as effective tools for improving mental fitness.

**Objectives** There are few studies that have explored the efficacy of smartphone-based cognitive training. The present study examined the memory-enhancing effects of smartphone-based memory training for older adults.

**Aims** We explored whether newly developed application “Smartphone-based brain Anti-aging and memory Reinforcement Training (SMART)” improved memory performance in older adults with subjective memory complaints.

**Methods** A total of 53 adults (mean age: 59.3 years) were randomised into either one of two smartphone-based intervention groups (SMART vs. Fit Brains®) or a wait-list group. Participants in the intervention groups underwent 15–20 minutes of training per day, five days per week for 8 weeks. We used objective cognitive measures to evaluate changes with respect to four domains: attention, memory, working memory (WM), and executive function (inhibition, fluency, etc.). In addition, we included self-report questionnaires to assess levels of subjective memory complaints.

**Results** The performance on WM test increased significantly in the SMART group (t(17) = 6.27, P = 0.0001) but not in the control groups. Self-reports of memory contentment, however, increased in the Fit Brains® group only (t(18) = 2.12, P = 0.048).

**Conclusions** Use of an 8-week smartphone-based memory training program may improve working memory function in older adults. However, objective improvement in performance does not necessarily lead to decreased subjective memory complaints.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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**EW0206**

**Drug–drug interactions between antibiotics and psychopharmaceuticals in Slovenian nursing homes: A retrospective observational cohort study from a national perspective**

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**Background** Drug–drug interactions (DDIs) between antibiotics and psychopharmaceuticals in large national data have not been described yet.

**Objectives** In most European countries, there is no national data on DDIs in patients within nursing homes.

**Aim** To present the most important DDIs in the Slovenian nursing homes to avoid serious DDIs in the future.

**Methods** A retrospective study was carried in 2015 and with 233 patient on antibiotic treatment. All study data from the patients’ records were obtained from the patients’ charts. DDIs were determined by different interaction classes with Lexicomp OnlineTM 19.0 version and only X (major interactions) and D (minor interactions) were included.

**Results** A total of 233 patients (age = 83.5, SD = 9.8) were treated with antibiotics (only 2 without psychopharmaceuticals). The number of patients with at least 1 interaction was: 72 (30.9%) for X and 172 (73.8%) for D and the average number of medication/patient was 10.9 (SD = 3.9). Twenty-seven patients (11.5%) were treated with at least 1 X DDIs (17 patients ciprofloxacin, 6 moxifloxacin, 3 azithromycin and 1 levofloxacin). Quetiapine and ciprofloxacin was most frequent DDIs occurred in 12 patients. Twenty-seven DDIs were pharmacodynamic (QTc prolongation) and 3 pharmacokinetic (ciprofloxacin-tizanidine, ciprofloxacin and duloxetine in 2 patients; n = 3). Quetiapine was most frequent prescribed psychopharmaceutical in X DDIs.

**Conclusions** DDIs between these two groups are seen very often. If an antidepressant should be used in these patients, we recommend sertraline instead of escitalopram and venlafaxine instead of duloxetine and mirtazapine instead of quetiapine. We also recommend a use of penicilins instead of ciprofloxacin and azithromycin.

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**EW0207**

**Efficacy of rivastigmine on loss of appetite in patients with Alzheimer’s disease**

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**Introduction** It has been said that nearly 30% of the patients with Alzheimer’s disease (AD) manifest loss of appetite, which might increase cognitive impairments and the incidence of neuropsychiatric symptoms, and malnutrition. As a result, a vicious cycle decreases functionality and quality of life in patients with AD. Cholinesterase inhibitors (ChEIs) is the first-line drugs in the treatment of AD. On the one hand, appetite or weight loss can be seen due to gastrointestinal side effects in the treatment of ChEIs. On the other hand, there are some reports in clinical-settings that patients with AD treated with rivastigmine transdermal patch showed the improvement of appetite loss.

**Objectives** To evaluate the efficacy of rivastigmine transdermal patch in AD patients with poor appetite.

**Methods** In this 16-weeks, multicenter prospective study, patients with mild to moderate AD, who manifest loss of appetite and began to receive rivastigmine transdermal patch therapy, were enrolled. The amount of food, total time-eating, body weight, Mini Mental State Examination (MMSE) and Neuropsychiatric Inventory (NPI) were evaluated.