Background: In order to be helpful for the diagnosis and prediction of the shunting surgery outcome in Chinese idiopathic normal pressure hydrocephalus patients, we herein were to explore the correlation between the clinical, neuroimaging characteristics and the cerebrospinal fluid tap test response. **Methods:** 43 iNPH patients in PUMCH from 2013-2015 were included. All patients were evaluated using MMSE, MOCA, ADL, iNPH scale, underwent 1.5T head MRI scan and a cerebrospinal fluid tap with removal of 30 ml of CSF. The evaluations prior to and posterior to CSF tap test included the 10m walking time and steps, TMT-A, digital symbol and STROOP test. Two experienced neurologists were responsible for the adjustment of the CSF tap test response. The clinical and neuroimaging parameters of iNPH patients were analyzed between the CSF tap test responders and non-responders. **Results:** Compared with non-responders, the patients of CSF tap test responders had more male patients (male: female 20:4 vs. 9:10, p= 0.021), longer walking disturbance history ((1040.13±708.33) days vs. (597.06±527.7) days, p= 0.035), lower baseline cognitive tests z score (-15.731±16.537 vs. -4.236±8.280, p= 0.041) and more periventricular white matter lesions (p= 0.033). **Conclusions:** We report some clinical and neuroimaging characters of iNPH patients which were a little different from those have been reported. Our limitation is that the shunting result hadn't been analyzed because of the limited number of patients. However the results indicated that the patients with the longer duration, the lower cognitive tests score and the prominent white matter lesions should not be excluded for the shunting surgery.

P1-301   **THE MINI EATING BEHAVIOR INVENTORY (MINI EBI): A 10-ITEM CLINICAL TOOL FOR THE EARLY DIAGNOSIS OF FRONTOTEMPORAL DEMENTIA**

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Background: Changes in eating behaviors and food preference are very frequent in patients with frontotemporal dementia. Despite a specific pattern, this behavioral change is not used as a diagnosis tool. In this study we proposed a short version of a caregiver questionnaire named Mini Eating Behavior Inventory (Mini-EBI). **Methods:** The first EBI questionnaire consisted in 30 questions investigating four domains of eating behaviors (eating habits, food preference, table manners, and swallowing problems). This 30-item questionnaire allowed to distinguish frontotemporal dementia from Alzheimer's disease with high sensitivity and specificity. The aim of this study was to test a 10-item version of the questionnaire, called Mini-EBI. Two groups of patients were stud-

ied using the Mini-EBI: 50 patients with frontal variant frontotemporal dementias (fv-FTD) and 40 patients with Alzheimer's diseases (AD) confirmed by CSF biomarkers. **Results:** Results showed that the Mini-EBI scores were significantly different in the two groups with mean scores (± SD) of 6.2 / 10 (± 1.9) in fv-FTD patients and 1 /10 (± 1.3) in AD patients. The ROC curves analyzes showed a high area under the curve (AUC = 0.98, p<0.0001) and revealed a best cut-off value of > 3 /10 for fv-FTD diagnosis, with 96.9 % sensitivity and 90.9 % specificity. **Conclusions:** The Mini-EBI, shown as a rapid and simple 10-item caregiver questionnaire, could be proposed as a new diagnosis tool distinguishing fv-FTD patients from AD patients.


P1-302   **DISRUPTED INFRADIAN RHYTHMS IN MILD COGNITIVE IMPAIRMENT**

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Background: Sleep quality is closely linked with cognitive function. Monitoring sleep patterns may offer insight into the early prognosis of aging adults at risk for dementia. Disrupted sleep has been documented in studies of adults with mild cognitive impairment. Sleep patterns are strongly influenced by circadian rhythms on a daily scale and also vary seasonally depending on day length and environmental temperature, with longer sleep periods observed during the winter months. In a uniquely longitudinal cohort study using in-home passive monitoring, we evaluated whether normal seasonal (infradian) rhythms are disrupted in individuals with MCI. **Methods:** Participants were 128 older adults; mean age, 85 years. Ninety-eight were cognitively intact and 30 had been diagnosed with MCI (22 non-amnestic MCI; 8 amnestic MCI) using standard psychometric and clinical criteria. All were enrolled in an ongoing longitudinal study using in-home passive monitoring technology. Infrared sensors were placed throughout each participant's home to monitor movement and presence in each room of the home.

Total Sleep Time - Intact

Total Sleep Time - Non-Amnestic MCI

Total Sleep Time - Amnestic MCI
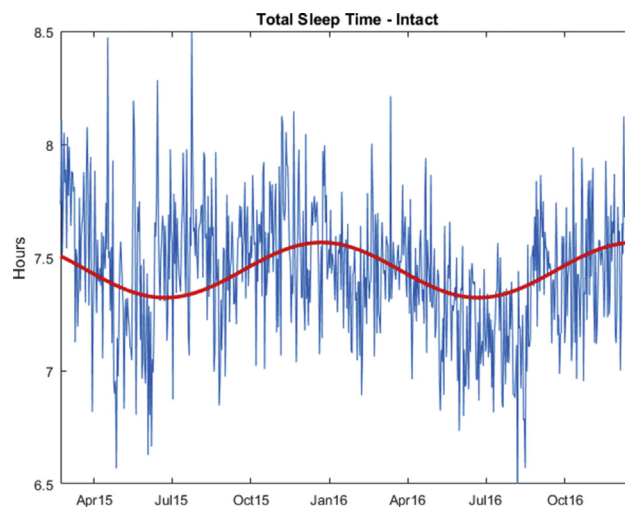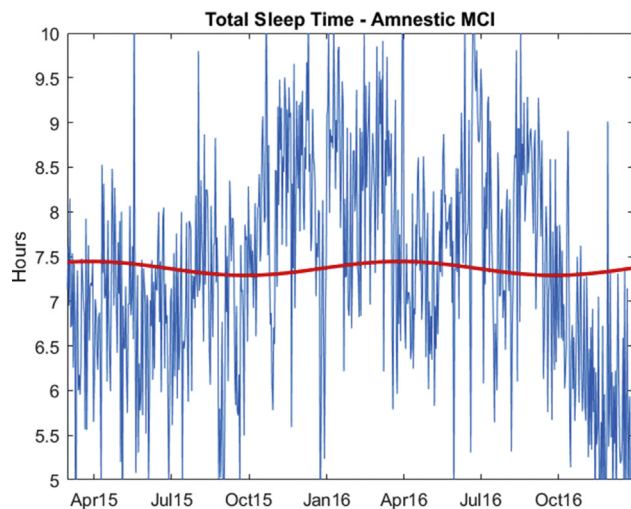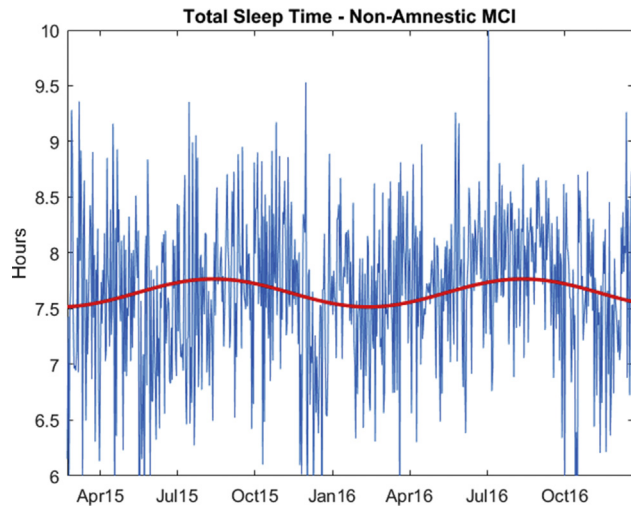
Algorithms were developed to estimate rest-activity patterns during the night, which were then extrapolated to variables such as total time asleep, sleep latency, and time awake after sleep onset. **Results:** Activity data was collected from the sensors for more than five hundred days. Sleep patterns were found to vary seasonally for the cognitively intact group with longer sleep periods during the winter months. This seasonal variation was not observed for those with non-amnestic mild cognitive impairment. Total time asleep was associated with the seasonal length of the night for the cognitively intact group and more weakly for the group with amnestic MCI. The cognitively intact group was found to sleep an average of 18 minutes longer in winter, while the MCI group slept 9 minutes less in winter. **Conclusions:** MCI is associated with an attenuation of seasonal variation in sleep patterns during the night, particularly within the subjects with non-amnestic MCI. Detection of changes in infradian sleep patterns may be an early marker of cognitive decline. Which key determinants are driving these disturbed rhythms, home environmental factors or external environmental cues, remains an important question for ongoing and future studies.

P1-303

CHANGES IN PERSPECTIVE TAKING ABILITY IN AGING PROCESS ARE DEPENDENT ON GENDER AND ALZHEIMER-RELATED COGNITIVE DECLINE

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Background: In recent years, there has been growing interest in age-related differences in emotional functions across life span, in part due to systematic move toward early detection of unhealthy aging such as Alzheimer's disease (AD). Accordingly, subtle changes in emotional functions that manifest in social relationships are gaining more attention. Perspective taking (PT), as defined as the tendency or ability to spontaneously adopt the psychological point of view of others, is an aspect of empathy and is a fundamental prerequisite to interact in complex social environments and relationships. As cognitive functions generally decline with age, whether it be healthy or unhealthy aging, it has been speculated that PT ability would also decline with age—though not systematically investigated. The aim of the current study is two-fold: (1) Examine if PT declines with age in healthy adults; and, (2) examine if the PT ability in older adults changes with AD. **Methods:** Total of 455 subjects (age range: 21 ∼ 87) from the Korean Brain Aging Study for Early Diagnosis & Prediction of Alzheimer's Disease (KBASE), an ongoing prospective cohort study, were included for this analysis. All participants underwent comprehensive clinical and neuropsychological assessment, and were identified as either cognitively normal (CN), mild cognitive impairment, or AD dementia. The Interpersonal Reactivity Index (IRI), a 28-item brief, multidimensional, self-report survey assessing aspects of empathy, was administered to all participants. The perspective taking subscale was used in the analysis. **Results:** In overall CN adults, PT ability does not appear to change with age. However, an interaction between age and gender was found on PT ability where a linear pattern of decline in PT associated with age was seen only in male participants ($F(1,155)=9.41$, $p = .003$, $R^2=.057$). In older adults, significant effects of diagnosis on PT ability was found after controlling for the effects age and gender ($F(2,383)=8.62$, $p < .001$, $\eta_p^2 = .043$). **Conclusions:** The current findings indicate that PT changes differently between gender with aging while in cognitively healthy stage and that AD process negatively affects PT ability regardless of gender or age.

P1-304

DIGITALLY TRANSLATED SELF-ADMINISTERED GEROCOGNITIVE EXAMINATION (ESAGE): RELATIONSHIP TO CLINICAL ASSESSMENTS

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Background: Self-Administered Gerocognitive Examination (SAGE) is a pen-and-paper, valid and reliable cognitive assessment tool for identifying individuals with mild cognitive impairment (MCI) or early dementia. We published age and education