symptoms gradually decreased. Subsequently, we resumed HBO. Combination therapy of TRH and HBO dramatically improved to his premorbid state, except for higher brain dysfunction. After discharge, he underwent rehabilitation at another hospital for approximately five years and returned to work. However, his symptoms of higher brain dysfunction and mood disturbance caused another suicide attempt by CO poisoning. Although he did not demonstrate any severe psychiatric symptoms, except for higher brain dysfunction, MRI and SPECT imaging revealed progressive atrophy and blood flow reduction of both frontal lobes in his brain. Finally, he was unable to return to the community.

Conclusion: Administration of TRH may be useful for the interval form of CO poisoning, who is difficult to introduce HBO due to severe psychiatric symptom. Because the interval form of CO poisoning may cause a progressive clinical course with severe brain atrophy and dysfunction, continuing psychiatric care is necessary for the patient.

PT733
The effect of mindfulness based group art therapy on the depression, anxiety and quality of life in Korean patients with breast cancer
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Abstract
Objective: This is an exploratory, quasi-experimental study to investigate the effects of mindfulness based group art therapy on the depression, anxiety and quality of life in Korean patients with breast cancer.

Methods: 24 of 60 patients with breast cancer, aged 35 to 65 who underwent surgery at least 1 year after completed chemotherapy or radiotherapy were randomly assigned to either a control group or experimental group. The experimental group received 90 minutes of mindfulness based group art therapy in weekly sessions over a period of 3 months, while the control group had continued daily routines (no action). Personality Assessment Inventory (PAI) was used to assess the effect of therapy on depression and anxiety. Korean version of European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-C30 (EORTC-QoL-C30) was used to assess quality of life.

Results: Mindfulness based group art therapy had significant effects on the anxiety (F=22.86, p<.001) and depression (F=42.73, p<.001). Global quality of life (F=34.10, p<.001) and physical (F=31.57, p<.001), cognitive (F=8.28, p<.01), and social functions (F=14.93, p<.001) of EORTC-QOL-30 were improved after Mindfulness based group art therapy compared to the control group, but there was no significant effect on the role and social function. Fatigue (F=24.57, p<.001), nausea and vomiting (F=8.08, p<.01), pain (F=17.50, p<.01), constipation (F=9.47, p<.01), diarrhea (F=7.90, p<.05) and sleep disturbance (F=8.03, p<.05) of EORTC-QOL-C30 in the experimental group were significantly improved after Mindfulness based group art therapy compared to the control group.

Conclusion: Mindfulness based group art therapy may have beneficial effects on depression and anxiety, and improve quality of life and symptoms in Korean patients with breast cancer.

Key Words: Group therapy, Mindfulness, anxiety, depression, QoL, breast cancer

PT734
Evaluation of efficacy and safety of the novel drug hemantane in patients with Parkinson’s disease
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Abstract
Novel antiparkinsonian drug Hemantane (N-2-adamantyl hexamethylenimine hydrochloride) (H) was synthesized and preclinically studied in Zakusov Institute of Pharmacology. Effects of H were proved in animal models of parkinsonism and in pilot clinical study in patients with early Parkinson’s disease (PD). At present randomized double-blind placebo-controlled study efficacy and safety of H was evaluated in PD patients.

60 patients with initially diagnosed untreated PD were included. 20 were treated by H 25 mg daily for 16 weeks, 20 received H 25 mg during first 4 weeks and then the dose was increased to 50 mg (25 mg twice a day), 20 patient received placebo (1 or 2 tablets). Efficacy was assessed in Unified Parkinson’s Disease Rating Scale (UPDRS) and several other scales. General state, blood pressure, electrocardiogram, blood and urine tests were controlled for safety evaluation.

H was more effective in patients which received 50 mg a day. The decrease of rigidity was more pronounced. In the group “H 50 mg” at the end of treatment index of rigidity was decreased by 41% to the baseline. In the group “H 50 mg” significant decrease in the score of UPDRS III “Motor examination” compared to Placebo group was revealed on 8, 12 and 16 weeks, the same as decrease of the total score of the scale. After 16 weeks of treatment significant difference in the total UPDRS score was registered also between “H 50 mg” and “H 25 mg” groups.

The safety of H was proved. Non serious adverse reactions were registered in 10 patients, only 6 were possibly connected with treatment, transient and did not require discontinuation of treatment.

The present study confirmed moderate efficacy of H 50 mg monotherapy in patients with early PD and safety of both daily doses. Clinical trial of H combination with dopamine agonists was recommended.

PT735
Multisensory integration of social interaction
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Abstract
Background: Recent studies have proposed that audio-visual integration has many important roles in everyday life. When both auditory and visual stimuli are perceived at the same time, the influence of these elements is more effective compared to perceived one side only. In reality, these multisensory integrations are always existed in our daily lives. Furthermore, these of sensory cues are directly related to cognition in many social
situations. This is why we focus on multisensory information such as audio-visual integration. Lately, many researches in social studies and medical sciences ultimately want to understand human’s mechanism of social behavior. This study reviews the key research literature regarding multisensory integration in social context. In particular, we want to concentrate on a situation when visual stimuli are presented simultaneously with auditory stimuli.

**Method:** In this review we provided insight into multisensory integration and social behavior. We organized these multisensory phenomena in human adaptation to functional approaches. In addition, comparison between normal subjects to patients who have deficit in multisensory perception showed supporting evidences for this hypothesis.

**Results:** Multisensory integrations not only help simple perception but also individuals’ cognitive level. These investigated combinations of auditory and visual stimuli have powerful relationship with each other. Since social cues are the key signals to individual’s interaction, these aspects of multisensory integration can affect from simple stimuli perception to social cognition level. Moreover, patients who have deficit on perceptual integration showed severe dysfunction in social cognition.

**Conclusions:** Therefore, it is possible to explain that multisensory integration offers basis for social cognition. In other words, social interactions are based on multisensory integration with multiple processing.

**Keywords:** Multisensory integration, Social Cognition, Social deficit

**Abstract**

Many epidemiological studies suggest that being overweight is associated with an elevated risk of psychiatric disorders and suicidal tendency. However, findings vary across studies, and some studies suggest contradicting results. We investigated the relationship between being overweight and a range of psychiatric disorders and suicidality in the Korean general population.

A multistage, cluster sampling design was adopted, and 6,022 participants aged 18–74 years completed face-to-face interviews (response rate, 78.7%). All the respondents completed an interview, including assessment of psychiatric disorders (using the Korean version of the Composite International Diagnostic Interview 2.1), suicidality (using the modified Suicide Prevention Multisite Intervention Study on Suicidal Behaviors), and height and weight (by self-report).

Being overweight (defined as a body mass index of ≥ 25 kg/m²) was associated with increased in lifetime prevalence of depressive disorders (adjusted odds ratio [AOR], 1.38; 95% confidence interval [CI], 1.07–1.77), suicidal ideas (AOR, 1.42; 95% CI, 1.20–1.68), and suicidal plans (AOR, 1.44; 95% CI, 1.02–2.03), controlling for age, sex, educational attainment, marital status, and employment status. A subgroup analysis revealed that being overweight was associated with depressive disorders only in women aged 18–44 years (AOR, 1.75; 95% CI, 1.28–2.41) and with suicidal ideas (AOR, 2.08; 95% CI, 1.53–2.82) and suicide plans (AOR, 2.59; 95% CI, 1.25–5.37) only in men aged 18–44 years. Being overweight was associated with increased odds of nicotine use disorders in women aged 18–44 years (AOR, 2.35; 95% CI, 1.02–5.43), but with decreased odds in men aged 45–74 years (AOR, 0.64; 95% CI, 0.43–0.94).

Being overweight was associated with an increased odds of depressive disorders, suicidal ideas, and suicidal tendency. Sociodemographic factors such as sex and age influenced the association between overweight and psychiatric disorders and suicidality.

**Benefits of traditional styles of Japanese diet for mental health**

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**Abstract**

Although Japanese diet is believed to be balanced and healthy, the benefits have been poorly investigated. Especially, its effect on mental health has not been reported. Previous nutritional research results showed the relationship between high fat diet and brain function, glycemic index affected to brain function and so on. Thus, it is assumed that dietary patterns relate physical and mental health. In the present study, we investigated dietary patterns in Japanese population as well as physical and mental health by epidemiological survey to demonstrate the benefit of Japanese diet for health.

Questionnaires to assess dietary habits, quality of life, sleep quality, impulsivity and degree of depression severity were distributed to randomly-selected 550 adults. Participants with diagnosis of any diseases were excluded. Finally, 280 participants were selected for statistical analysis. Scores for each questionnaire were computed, and linear trend was tested by the Jonckheere-Terpstra test to assess associations of health indexes and food intake. In order to assess indirect effect, path