

Department of Psychiatry

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General Summary

Our research activities cover a wide range of topics: disorders at the psychological and biological levels, from childhood and adolescence, through adulthood, to the senile period. Sociologic, psychologic, physiologic, and biochemical methods were used.

Research Activities

Psychogeriatric group

We are currently undertaking a several researches investigating neural basis of neuropsychiatric symptoms and social functions in patients with neurodegenerative diseases and other psychiatric disorder among elderly people using neuropsychological testing, neuroimaging methods such as brain MRI and SPECT, and genetic testing. We continue to study changes in DNA methylation levels of neurodegenerative diseases as a biomarkers, and we now focus on the effect of DNA methylation on the appearance of behavioral and psychological symptoms. We are also continuing multicenter collaborative research on development of early diagnostic method of frontotemporal lobar degeneration, and clinical and genetic factors affecting its natural history. Also, in collaboration with the National Institute of Radiological Sciences, we are conducting research on tau imaging of neurodegenerative diseases and psychiatric symptoms. We are also studying the validity of treatment for patients with type 2 diabetes with cognitive decline.

Morita therapy group

In cooperation with psychotherapists of other schools such as cognitive behavioral therapy and psychoanalysis, we have been developing programs and materials to train young psychiatrists in order to master the basic techniques of the clinical interview. We continued the following studies this year: practical research towards obsessive compulsive disorder with autistic spectrum disorder, practical research towards the application of Morita therapy to the patients in adolescence and the patients with 「Hikikomori (withdrawal)」, the psychopathology of social anxiety disorders, factors in the recovery of patients with depression through inpatient Morita therapy, the application of Morita therapy to the elderly patients and the application of Morita therapy to the field of palliative medicine.

Psychopharmacology group

In basic research, we performed the following studies in rodents: 1) formation mechanism of drug addiction, 2) neural basis of addiction-related impulsivity, and 3) development of novel anti-craving agent. These studies were performed in collaboration with the NTT Communication Science Laboratories and the Department of Psychology, Senshu University. In clinical research, we performed the following studies in humans: 1) the developmental and the psychological and social predictors of recovery in patients with schizophrenia study, 2) regulation of the salience network by antipsychotic agents through dopamine D2/3 receptors with resting state functional MRI, 3) qualitative research on adherence in patients with schizophrenia. Integration between basic and clinical research is a fundamental concept of the Psychopharmacology group.

Clinical electroencephalography group

We tried interpretation based on NeoJacksonism (Ey H) about the cases that presented the psychotic symptoms associated with epilepsy. Furthermore we reported changes in serum concentrations of AEDs (especially new-antiepileptic drugs) during pregnancy of epileptic patients. A study was performed to prevent the recurrence of depression in patients with epilepsy. We examined the safety and efficacy of psychotropic drugs in several forms of psychosis associated with epilepsy.

Psychophysiology group

Studies examined: 1) changes in sleep structures by cognitive behavioral therapy for insomnia using the cyclic alternating pattern method (CAP), 2) the empirical research regarding the efficacy of the group cognitive behavioral therapy for primary insomnia and depression, 3) Effects of Chinese herbal medicine on sleep disorders, 4) The investigations of bio-markers of fatigue for obstructive sleep apnea syndrome.

Neuromodulation group

Approximately a million of patients with mood disorders are on any medical treatments in Japan. However, there are few treatments available for patients with treatment-resistant depression or bipolar depression as of now. Our mission aims to relief symptoms in those patients using a noninvasive neuromodulation technique such as repetitive transcranial magnetic stimulation (rTMS). Additionally, we seek to develop a medical device for unmet needs in cooperation with domestic and overseas companies, and promote regulatory science research.

The tasks that we are currently involved in are as follows: 1) post-marketing surveillance (PMS) study of the efficacy and safety of rTMS device in Japan, 2) to expand indication for bipolar depression using the Japanese advanced medical system, 3) research and development of maintenance therapy using rTMS, 4) research and development of a new parameter to treat depression, 5) research on the efficacy of rTMS in combination with a return to work program, 6) research and development of magnetic seizure therapy (MST), 7) research and development of computerized cognitive training (CCT).

We launched this neuromodulation laboratory in September last year and now advance the preparation of the above researches and clinical practice toward the next fiscal year.

General hospital psychiatry group

In a study of interventional therapy based on cognitive behavioral therapy aimed at preventing recurrences of depression, a computer system and sleep evaluation methods were introduced in addition to a previous evaluation system for more effective presentations and for more precise estimation, respectively. Furthermore, an investigation of new indications for this intervention for atypical depression, bipolar depression, and insomnia was performed. Another study investigated the issues associated with mental care services for patients with digestive tract cancers.

Psychopathology, psychotherapy and child study group

We have provided supervision (supervisor: Dr. Sadanobu Ushijima, case presentations: Kawakami and Seto) on two occasions to residents in order to cultivate a psychotherapy mindset. At the 24th Clinical Psychopathology Workshop held in Tokyo, we gave a presentation entitled “A case of schizoid personality disorder in a woman exhibiting depressive symptoms: diagnosis and treatment,” while at the 64th Annual Meeting of the Japanese Association of Pathography, we gave a presentation entitled “Masatake Morita’s pathography: an examination from the perspective of salutogenesis.” Our strategy moving forward will be to (1) continue supervision, (2) examine the usefulness of the ‘desire for life’ (Masatake Morita) in the postmodern era, and (3) research subtypes of Morita’s neurosis in the postmodern era.

Clinical psychology group

We have continued to discuss and study psychotherapeutic processes and the treatment techniques of cognitive behavioral therapy, art therapy, therapeutic assessment, Morita therapy, relief care, psycho-oncology, and social skill training. We have also examined the characteristics of developmental disorders and higher brain dysfunctions through psychological assessments. Furthermore, we trained graduate students of a clinical psychological course.

Publications

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