

Department of Internal Medicine

Division of General Medicine

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Research Activities

Division of General Medicine, The Jikei University Hospital

Little is known about the relationship between anxiety and health-related quality of life (QOL) in a primary care setting. The objective of this study was to determine whether the degree of anxiety affects physical complaints and the QOL physical status scale. The State Trait Anxiety Inventory (STAI) and the 36-Item Short Form Health Survey (SF-36) were used to evaluate the degree of anxiety and health-related QOL scores, respectively. To date, 46 patients (26 men and 20 women) with a mean age of 41.2 ± 12.8 years have participated in the study. Of the 25 physical complaints, those correlated with anxiety were general fatigue, vertigo, and dizziness. The physical component summary of the SF-36 showed a statistically significant correlation with anxiety. The physical component summary of the SF-36 showed a statistically significant correlation with trait anxiety, but not state anxiety, after being adjusted for sex and age.

Division of General Medicine, The Jikei University Aoto Hospital

Experimental and clinical investigations were performed for cardiovascular abnormalities in hypertension, diabetes, and cardiomyopathy.

1. Cardiovascular damage increases if patients with hypertension also have diabetes. The effects of combination therapy with antihypertensive drugs were investigated in patients with hypertension and associated diabetes mellitus. The effects of angiotensin II receptor blockers, angiotensin-converting enzyme inhibitors, calcium antagonists, and beta adrenergic blockers with or without intrinsic sympathomimetic action were examined.
2. An experiment was performed to investigate alterations in myocardial subcellular organelles in cardiomyopathic J2N-k hamsters. A molecular biological examination was also performed for laminin, which is a component of the extracellular matrix.
3. The effects of *shinrin-yoku* (forest-air bathing and walking) on sympathetic nervous activity is being examined in healthy elderly persons.

Division of General Medicine, Jikei University Daisan Hospital

1. Study of factors of infection in elderly inpatients

To investigate the relation between infection and several factors in elderly inpatients, we studied the relation of infection with nutritional state, administered drugs, and biochemi-

cal markers.

2. Study of fever of unknown origin

We attempted to clarify the cause of fevers of unknown origin by measuring white blood cells, the erythrocyte sedimentation rate, and levels of C-reactive protein, adenosine deaminase, 2-5 oligoadenylate synthetase, soluble interleukin-2 receptor, and procalcitonin. Since 2000 we have treated 500 patients with fever of unknown origin. We found that viral infection can be distinguished from bacterial infection on the basis of the results of these measurements.

Division of General Medicine, Jikei University Kashiwa Hospital

Our research works consist of three parts: the first part is to investigate the role of the general medicine on the environmental health achievement in regional areas, especially in Kashiwa City; the second part is to evaluate lipid abnormalities that result in premature atherosclerosis and to develop treatments for atherosclerotic disorders; and the third part is to develop educational tasks for teaching medical students and junior residents.

1. Investigation of the role of general medicine on environmental health achievement
We developed a new regional nutritional education system and reported practical procedures at the 29th annual meeting of the Japanese Society of Clinical Nutrition in Kyoto.

2. Studies of lipid metabolism and atherosclerosis

1) Using a newly developed method of high-performance liquid chromatography, we demonstrated that oxidized low-density lipoprotein elevates release of serotonin from platelets (*Am J Haematol* 2007).

2) Diacylglycerol ingestion was found to increase plasma levels of serotonin, which stimulates thermogenesis, and suggests a new mechanism for treating obesity with diacylglycerol (*J Clin Lipidol* 2007).

3) Diacylglycerol ingestion was found to suppress postprandial hyperlipidemia in a subject with genetic hyperchylomicronemia (*QJM* 2007).

4) Current issues of low-density lipoprotein homogenous assay were highlighted by lipoprotein analysis with our newly developed method of high-performance liquid chromatography.

5) Supervised regular exercise training for 4 months was found to increase adiponectin levels, but exercise for 2 months had a less significant effect.

6) Evaluation of serum levels of very low density lipoprotein cholesterol was found to be a useful measure for monitoring lipoprotein amelioration achieved by exercise.

7) Subanalysis of the Japanese Investigation of Kinetic Evaluation in Hypertensive Event And Remodeling Treatment study showed that antihypertensive therapy with an angiotensin II receptor blocker prevents cardiovascular events in Japanese women.

3. Medical Education

1) A new practical algorithm for evidence-based medicine was developed for the clinical setting.

2) As an effective feedback system for undergraduate and postgraduate medical education, a portfolio education system was developed.

Publications

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