

Department of Internal Medicine

Division of General Medicine

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Research Activities

Division of General Medicine, Jikei University Hospital

Little is known about the relationship between anxiety and 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 employed to evaluate the degree of anxiety and general QOL scores, respectively. To date, 46 patients (26 men and 20 women) with a mean age of 40.3 ± 13.0 years have participated in the study. Of the 35 physical complaints, vertigo, chest pressure, cough, and sore throat were correlated with trait-anxiety. The physical component summary score of the SF-36 showed a statistically significant relation with trait-anxiety, but not state-anxiety, after we adjusted for sex and age.

Division of General Medicine, Jikei University Aoto Hospital

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

1. Effects of combination therapy with antihypertensive drugs were investigated in patients with hypertension associated with diabetes mellitus. Incidence of cardiovascular abnormalities increases if patients with hypertension also have diabetes. If patients show ischemic electrocardiographic changes antihypertensive agents should be selected carefully. In our study, the effects of angiotensin II receptor blockers, angiotensin-converting enzyme inhibitors, calcium antagonists, and beta blockers with or without intrinsic sympathomimetic action were examined in patients with diabetes-associated hypertension.
2. An experimental study was performed of alterations in myocardial subcellular organelles in cardiomyopathic J2N-k hamsters. Molecular biological examination was also done for laminin, which is a component of the extracellular matrix, in cardiomyopathy.

Division of General Medicine, Jikei University Daisan Hospital

1. Study of factors of infection in elderly hospitalized patients
To investigate the relation between infection and several factors in elderly hospitalized

patients, we studied the relation of infection with the nutritional state, administered drugs, and biochemical markers.

2. Study of the effects of hospitalization

We continued to study changes in the nutritional state, lean body mass, mental state in elderly hospitalized patients.

3. Study of fever of unknown origin

We attempted to clarify the cause of fever 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. We have treated 500 patients with fever since 2000. 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, the second part is to evaluate lipid abnormalities which cause premature atherosclerosis, 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.

1) We became a central member of the DISCOVER, an epidemiological study, which is supported by Health and Labor Sciences Research Grants for Comprehensive Research on Aging and Health.

2) We established a regional nutritional education system for patients with diabetes mellitus or metabolic syndrome in the Kashiwa area.

2. Evaluation of lipid metabolism

1) We demonstrated that oxidized low-density lipoproteins activate platelets and induce serotonin release from platelets (*Am J Hematol* 2007; 82: 686-7).

2) We discovered that diacylglycerol ingestion elevates plasma serotonin levels (*Obesity* 2007, in press).

3) We showed that diacylglycerol is beneficial for patients with apolipoprotein C-II deficiency (*QJM* 2007; 100: 247-8).

3. Studies of mechanisms of atherosclerosis

1) The ameliorating effect of exercise on serum lipids was investigated in detail with high-performance liquid chromatography.

2) We measured levels of high-density lipoprotein cholesterol and low-density lipoprotein cholesterol with a homogenous high-performance liquid chromatography assay.

4. Medical Education

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

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

3) For easy and practical problem-oriented systems, a checklist audit report system was developed and the efficacy of this system was evaluated.

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