Progress report 2015

Department of Joint Disease Research

Project Associate Professor  Noriko Yosihmura, M.D., Ph.D.
Project Research Associate  Shigeyuki Muraki, M.D., Ph.D.

Brief Summary

Introduction and Organization: The department of Joint Disease Research was established in 22nd Century Medical and Research Centre in 2005; it is an endowment department supported by Chugai Pharmaceutical Co., Ltd. and in close collaboration with the department of Orthopaedic Surgery. Our department has been established for epidemiological studies to clarify the frequencies of and risk factors for musculoskeletal diseases.

Research Activities: Musculoskeletal diseases, including osteoarthritis (OA) and osteoporosis (OP), are major public health problems among the elderly that affect their activities of daily living (ADL) and quality of life (QOL), leading to increased morbidity and mortality. Because of the growing aging population in Japan, a comprehensive and evidence-based strategy for the prevention of diseases of bone and joint system, including OA and OP, is urgently required. However, only a few prospective longitudinal studies have been undertaken thus far, and little information is available on the prevalence and incidence of OA and OP as well as pain and disability in the Japanese population. It is difficult to design rational clinical and public health approaches for the diagnosis, evaluation, and prevention of OA and OP without such epidemiological data. We, therefore, established a large-scale nationwide OA/OP cohort study titled Research on Osteoarthritis/osteoporosis against Disability (ROAD), which consisted of 3,040 participants in 3 communities located in the urban, mountainous, and coastal areas (baseline study) of Japan between 2005 and 2007. Following the baseline study, a second survey was performed in the same communities between 2008 and 2010, comprising of 2,674 inhabitants. The third survey has completed in 2013, and forth survey started in 2015.

In addition, we have developed several computer programs for completely automatic measurement of the major parameters of OA and OP for multimodality medical image analysis.
Publication
Original Articles
10. Yoshimura N, Musaki S, Oka H, Tanaka S, Ogata T, Kawaguchi H,


