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WIPA NGAMSUTIKUL : RISK FACTORS ASSOCIATED WITH OSTEOARTHRITIS OF THE KNEE AND QUALITY OF LIFE. THESIS ADVISORS : VICHAI RUNGPIRARANGSI, M.D., M.Sc., JAYANTON PATUMANOND, M.D., D.Sc., CHAMAIPORN TAWICHASRI, M.Sc., SOMBAT BURANARACHADA, M.D., Dip Thai Brd Int Orth, 117 P. ISBN 974-664-700-8

A hospital-based case-control study of the risk factors associated with osteoarthritis of the knee and a study of the patients' quality of life were conducted at Maharaj Nakhon Ratchasima Hospital during August to September 1999. Cases were 210 patients with osteoarthritis of the knee and 210 controls who had other orthopaedic conditions, aged 45 years or more who were registered at an orthopaedic clinic. The information were collected by direct interviewing, using a structured questionnaire which included information regarding socio-demographic, health history, health related behavior, and direct lower limb measurement. The quality of life was assessed by the standard questionnaire, WHOQOL-BREF.

The association between risk factors and osteoarthritis of the knee was analysed by the multiple logistic regression to control for the effects of age and gender. The results showed that the body mass index of 25.0 to 29.9 kg/m² and ≥ 30.0 kg/m² increased the risk by 2.27 times (95% CI = 1.41 to 3.63) and 6.75 times (95% CI = 2.71 to 19.80). Each degree of genu varus or genu valgus angle increased the risk by 1.10 times (95% CI = 1.06 to 1.14) and 1.35 times (95% CI = 1.12 to 1.62). Sitting postures such as kneeling, squatting, and Thai traditional sitting longer than 6 hours/week increased the risk by 20.90 times (95% CI = 10.70 to 40.80), 16.62 times (95% CI = 9.36 to 29.48) and 4.86 times (95% CI = 2.77 to 8.54), respectively.

The multiple regression analysis to examine the quality of life after controlling for age and gender, indicated that the quality of life of the patients with osteoarthritis of the knee was 28% (95% CI = 31.4 to 24.9) lower than patients with other orthopaedic conditions. The quality of life in the physical and psychological domains of patients with severe and moderate symptom were 47.8% (95% CI = 73.8 to 21.7) and 25.6% (95% CI = 50.4 to 0.8) lower than those with mild symptom, respectively.

To reduce the risk of osteoarthritis of the knee, sitting postures such as kneeling, squatting, and Thai traditional sitting for long duration should be avoided. Weight should be controlled to an optimal level. Besides proper treatments, good quality of life of the patients can be achieved by an additional care from relatives and health personnel. Patients with moderate and severe symptom should receive extra physical and psychological care.