

Kim YS, Hong D, Lee DJ, Joo NS, Kim KM. Total testosterone may not decline with ageing in Korean men aged 40 years or older. CLIN ENDOCRINOL 2012; 77(2):296-301.

Ref ID: 22914

Abstract: Objective It is generally believed that gonadal function in men declines with ageing. However, observations on ageing-related decrease in total testosterone (TT) are not consistent. The aim of this study is to examine the ageing-related changes of testosterone and to investigate the influence of the ageing-related factors on TT. Design Changes of TT with ageing were observed in longitudinal design in a single health promotion centre. Subjects A total of 220 Korean men aged \geq 40 years were included between 2002 and 2011. TT assay was repeated for all subjects, with an interval of \geq 3 years. Measurements Information of medical history and lifestyle habits was collected. Anthropometry and blood pressure were measured. TT, glucose, creatinine, highly sensitive C-reactive protein, liver enzymes and lipid profiles were tested. Results Mean TT level did not decline significantly with ageing during median 4.3 years follow-up (18.1 vs 17.8 nm, $P = 0.439$). Longitudinal change of TT was approximately + 0.8% per year. TT was negatively correlated with body mass index (BMI), waist circumference and glucose. With mixed effects model, diabetes ($P = 0.038$) and BMI ($P = 0.007$) affected TT level, but age and follow-up interval did not. Conclusions TT did not change significantly in 220 Korean men for a median 4.3 years follow-up. TT was not influenced by the age and follow-up interval. BMI and diabetes mellitus affected TT decline. -[®] 2012 Blackwell Publishing Ltd