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제 목	Incidence Rates and Risk Factors for Impaired Fasting Glucose, Type 2 Diabetes and Metabolic Syndrome in Korean Male Worker s Aged 30-39					
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The aims of the present study were to define the incidence and specific risk factors for impaired fasting glucose(IFG), type 2 diabetes(DM) and metabolic syndrome(MS) in Korean male workers who were aged 30-39 years.

Our study population was Korean male workers at one of the biggest semiconductor manufacturing companies in Korea.

A total of 6,967 male workers aged 30-39 participated in health examinations at the Kangbuk Samsung Hospital in 2002. This study included 5,437 IFG-free men, 5,541 DM-free men and 4,779 MS-free men who did not have medication for dyslipidemia or a history of any malignancy at study entry. Subjects were reexamined annually or biennially at the same hospital over 3 successive years until Aug 2005. We used a modified National Cholesterol Education Program definition of MS with BMI instead of waist circumference and the revised criteria of the American Diabetes Association(ADA) for DM. The age standardization was estimated using the direct method to the age structure of the 2000 Korean male population aged 30-39. Cox's proportional hazards models were used to calculate adjusted hazard ratios in separate models for IFG, DM and MS. At baseline, 49 (0.8%) of 6,436 individuals had DM, as defined by ADA criteria, 118 (1.8%) individuals had IFG and 965 (15.0%) had MS. At the end of the 3-year follow-up (2002-2005), IFG developed in 1,107 individuals, DM in 143 and MS in 708. An age-standardized incidence rates for IFG, DM and MS were 98.4 per 1,000 person-years (95 % CI, 88.3~108.5), 11.8 per 1,000 person-years (95 % CI, 8.5~15.2) and 73.8 per 1,000 person-years (95 % CI, 64.8~82.8), respectively. The incidence rates of type 2 diabetes in individuals with IFG was 109.2 per 1,000 person-years (95 % CI, 64.5~153.8). Among a variety of candidate risk factors, BMI, WBC count, uric acid, triglyceride, low HDL, GGT and ALK were independent risk factors for IFG. BMI, low HDL, impaired fasting glucose and ALK were independent risk factors for type 2 diabetes, and family history of diabetes, uric acid, GGT and low ALK were independent risk factors for metabolic syndrome.

It is strongly required that active preventive interventions should be taken for those who are at risk of IFG or MS for these age group and that unless preventive action is taken from the population aged 30 -39, the absolute impact of diabetes on the health of the population might be enormous.