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Association between the time of length since smoking cessation and insulin resistance in asymptomatic Korean male ex-smokers

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Aim: Smoking is a major risk factor for diabetes mellitus, mainly due to decreased insulin secretion and increased insulin resistance. However, there has been little research on the effects of smoking cessation period on changes in insulin resistance. In this study, we investigated Almost no previous studies have evaluated thecombined effect of MS and smoking status on CAC. Therefore, in this study we examinedthe relationships between CAC, MS, and smoking. Almost no previous studies have evaluated thecombined effect of MS and smoking status on CAC. Therefore, in this study we examinedthe relationships between CAC, MS, and smoking.the relationships between the length of time since smoking cessation period and insulin resistance in asymptomatic Korean male ex-smokers.

Methods: A total of 851 male adults were included in this study. We considered several factors that can affect insulin resistance and, through multiple linear regression analysis, we assessed the effect the length of time since smoking cessation on insulin resistance in ex-smokers. Insulin resistance was represented as the insulin resistance index estimated by homeostasis model assessment (HOMA-IR).

Results: HOMA-IR values showed a statistically significant negative correlation with the length of time since smoking cessation (p=0.009) and high-density lipoprotein cholesterol (p=0.003). After performing multiple linear regression analysis using factors that could potentially influence insulin resistance, we found that waist circumference (p=0.026) and the length of time since smoking cessation (p=0.039) were independent predictors of HOMA-IR.

Conclusion: The longer the smoking cessation period, the more the insulin resistance tended to decrease in asymptomatic Korean male ex-smokers.

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