significantly different among fasted and non-fasted control subjects. Second, several covariates related to adiponectin levels such as the use of diabetes medication which may have influenced adiponectin levels were not fully examined in the present study. Analysis of waist circumference, an indicator of central obesity, and body composition, which can be used as an indicator of sarcopenia, physical activity, and HDL cholesterol levels may have enhanced our study. Third, we selected study subjects by using the cut-off points of fasting glucose levels ≥5.6 mmol/L and non-fasting glucose levels ≥7.2 mmol/L. For this non-fasting glucose point, we used the value which was lowered from ≥7.8 mmol/L, which was defined as postmeal hyperglycemia [40], in order to widely detect individuals with the early stage of glucose intolerance. When we re-analyzed after the exclusion of cases ($n = 20$) having 7.2–7.7 mmol/L of non-fasting glucose levels, we confirmed that this result remained unchanged. Fourth, our results were limited to individuals with hyperglycemia. Further investigations to determine whether or not our results are applicable to individuals without it would be more interesting. Finally, because of the small number of events, analysis of the subgroups was limited. Although we calculated risk among subgroups, the 95% CIs in those groups were relatively wide due to the smaller number of cases. To accurately estimate risk in these groups, a larger study population is needed.

In conclusion, our study showed that higher HMW adiponectin was associated with decreased risk of CVD among middle-aged adults with high blood glucose levels. Therefore, individuals with lower levels of HMW adiponectin are needed to be a more strict glucose control and lifestyle modification in a clinical manner. Our findings suggest that measurement of HMW adiponectin is a useful predictor of CVD among high-risk individuals with glucose abnormalities.

Disclosures

None.

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