ASSOCIATION BETWEEN FREE TESTOSTERONE INDEX AND LEUKOARAIOSIS IN KOREAN MEN

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Background/Aims: Leukoaraiosis (LA), altered white matter signal intensities seen on MR brain scans, has been shown to be associated with cerebrovascular risk factors and microangiopathy. Although the cerebrovascular system is also a target for sex hormones, little is known about the association between free testosterone index (FTI) and LA. This study aimed to determine the association between FTI and LA.
Methods: We examined the association between FTI and LA in 571 Korean men enrolled in a health examination program. FTI quartiles were categorized, as follows: Q1=34.4, Q2=34.5-43.1, Q3=43.2-53.8, and Q4=53.9. The odds ratios for LA were calculated using multivariate logistic regression analysis across FTI quartiles.
Results: The ORs (95% CIs) for LA by FTI quartiles were 1.00, 2.90 (0.84-10.03), 1.22 (0.27-5.50), and 10.03 (2.30-43.80) after adjusting for age, smoking status, alcohol intake, regular exercise, body mass index, mean arterial blood pressure, fasting plasma glucose, total cholesterol, triglyceride, HDL-cholesterol, hypertension medications, diabetes medications, and hyperlipidemia medications.
Conclusion: The results of this study indicate that high FTI is independently associated with greater prevalence of LA in men. Accordingly, a higher FTI may be an additional surrogate marker in assessing LA.