Silent brain infarction and metabolic syndrome in middle aged Egyptian ischemic stroke patients

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Objective: To investigate the relationship between silent brain infarcts and metabolic syndrome in middle aged patients with ischemic stroke.

Methods: We studied fifty middle aged patients between 40-59 years, (mean, 52.26 ± 5.29 years) with ischemic stroke who admitted to Al-Azhar University Hospitals or followed up in outpatient clinic. Metabolic syndrome was diagnosed according to the National Cholesterol Education Program Adult Treatment Panel III definition. Silent brain infarct was diagnosed using magnetic resonance imaging of the brain and without a history of corresponding neurologic symptoms or signs.

Results: Silent brain infarcts was diagnosed in 24(48%) patients (18 men and 6 women) while metabolic syndrome was diagnosed in 31(62%) patients of the 50 patients including (22 men and 9 women). There was a strong association between metabolic syndrome and silent brain infarction in middle aged subjects with ischemic stroke. Among metabolic syndrome components elevated blood pressure and impaired fasting glucose were strongly associated with the presence of silent lacunar infarction while hyper triglyceridemia, low high density lipoprotein cholesterol and large waist circumference were not significantly associated with silent brain infarction. Although, only elevated blood pressure and impaired fasting glucose were found to be significant components, subjects with a greater number of metabolic syndrome components showed more prevalent silent brain infarctions.

Conclusions: Metabolic syndrome was significantly associated with the prevalence of silent brain infarction in middle aged patients with ischemic stroke. Independent risk factors for silent brain infarctions include elevated blood pressure and impaired fasting glucose. The clustering of metabolic syndrome components tends to increase the prevalence of silent brain infarctions as there is a dose response relationship between the number of metabolic syndrome components and the risk of having silent brain infarction.

Biography
Wael Osman M Amer has completed his MD Al- Azhar University and Postdoctoral studies in Neuro intervention from School of Medicine, REIMS University, France. He is the Director of the stroke unit at Al-Azhar University School of Medicine. He has published more than 15 papers in reputed journals.

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