Risk Factors for Cognitive Impairment in Diabetes  
Hakan Yaman  
*Family Medicine, Akdeniz University Faculty of Medicine, Turkey*

One fifth of dementia is caused by cerebrovascular disease. Vascular cognitive impairment covers a broad spectrum of cognitive conditions starting from vascular cognitive impairment, no dementia to vascular dementia. Suspected vascular cognitive impairment is recommended to be screened for modifiable risk factors. There is evidence of prevention of recurrent stroke by the management of vascular risk factors. Diabetes belongs to these risk factors. Pooled results of studies revealed a 2.27 fold higher risk for vascular dementia and a meta-analysis of 28 studies showed a 127% percent increase of vascular dementia in diabetics. Even there are inconclusive results for vascular dementia, in diabetes APOE ε4 has been found higher in diabetics with dementia. Poor glycemic control has been found to correlate with worse cognitive function. The Hiyama study reported an presence of neuritic plagues with the increase 2nd hour postprandial glycemic levels, fasting insulin level and insulin resistance in Alzheimers' Disease, which might be also relevant for mixed forms of dementia with vascular dementia involvement. Obesity in diabetes contributes to hyperinsulinemia and insulin resistance. Insulin is regulating acetylcholine synthesis and so affecting cognitive functions in dementia. Insulin resistance reduces crossing insulin the blood brain barrier, which hinders its role in the brain tissue. Deterioration of endothelial cell function might provoke a dysfunction in neurovascular units with a negative impact on cognition. Management of diabetes and cardiovascular risk factors might prevent the progression of vascular cognitive impairment to vascular dementia. Cognitive decline due to cardiovascular risk factors might be more amenable for primary prevention.