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## Cognitive impairment among type-2 diabetic subjects and its relationship with long-term complications

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**Abstract:** Aim: Studies about relationships between diabetes mellitus, diabetic complications, and cognitive functions have been initiative factors for this study. We evaluated various relations between procedure of the disease, diabetic complications, and cognitive functions among diabetic subjects. Materials and methods: Type-2 diabetic patients were evaluated for their disease status, complications, and cognitive functions (by Mini Mental State Examination (MMSE) test). We compared MMSE results of the patients with the control group. Results: We evaluated 75 patients with type-2 diabetes mellitus and 49 control subjects. Orientation ( $P = 0.006$ ), attention and calculation ( $P = 0.002$ ), and total ( $P < 0.001$ ) scores of the control group were significantly greater compared to the diabetic group. We observed negative correlation between the length of disease and cognitive functions within the diabetic group. Recall scores of the diabetic subjects with 6 and less HBAIC levels were significantly greater than those with 6.1 and greater levels ( $P = 0.049$ ). We observed negative relations between registration scores and retinopathy, but not between orientation and total scores and hypertension among diabetic subjects. Conclusion: Type-2 diabetes mellitus may destroy cognitive function. Length of disease, high serum HBAIC levels, hypertension, and retinopathy are significant additional risk factors. We conclude that cognitive function assessment should be routine procedure in the management of type-2 diabetes mellitus.

**Key words:** Diabetes Mellitus, cognitive impairment, retinopathy, hypertension

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