

## **Influence of risk factors on the development of cognitive impairment in patients with diabetes mellitus type 2.**

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**Objective:** The aim of this study was to investigate the association between diabetes-related risk factors and cognitive impairments assessed by different scales in patients with type 2 diabetes mellitus.

**Methods.** We enrolled 101 patients with type 2 diabetes mellitus, mean age  $62.2 \pm 5.61$  years, (data are presented as mean  $\pm$  SD). BMI was  $32.6 \pm 10.08$  kg/m<sup>2</sup>, diabetes duration was  $9.7 \pm 6.73$  years, HbA1c  $8.1 \pm 1.36\%$ . All subjects studied did not have any history of cerebrovascular accidents or depressive episodes. It has been assessed memory, speed, executive function. The statistical analysis was performed using SPSS-15.

**Results.** We revealed some association between diabetes-related risk factors and cognitive impairments in patients with type 2 diabetes mellitus. It was the negative correlation between duration of diabetes and executive functioning impairments revealed by SCWT,  $r = -0.22, p = 0.05$ . Also, executive functioning was inversely affected by higher HbA1c levels,  $r = -0.23, p = 0.05$ . Higher systolic blood pressure was associated with worsening of cognitive functioning by RAVLT, it was significant negative correlation between blood pressure and immediate memory ( $r = -0.29, p = 0.01$ ) and delayed memory ( $r = -0.23, p = 0.05$ ). The negative association between systolic blood pressure and working memory assessed by DSFB was revealed ( $r = -0.20, p = 0.05$ ).

**Conclusion.** There is a correlation between impairments of cognitive functioning and diabetes-related risk factors in patients with type 2 diabetes mellitus.