Relationship between cognitive ability and vascular age and stress

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Abstract (upto 300 words)
Introduction: About people with unbalanced diet, they are evident that high palatability (addictive) substances, such as drinking alcohol or smoking, all occur due to emptiness, psychologically the same mechanism, with emotional and mental factors playing a big role. Therefore, we have, focused on mental soundness, and researched the relationships between mental health level/stress and cognition/judgement. Additionally, in order to determine the relation between body composition and cognitive function, we carried out the measurements with an inner scan monitor.
Methods: A screening test for mild cognitive impairment: Montreal Cognitive Assessment (MoCA test), measurement of body composition by an inner scan monitor, and stress level tests were performed by measuring α-amylase levels in the saliva from the sublingual gland. For statistical evaluation of scores before and after each cognitive test intervention, t tests were used. To test for relationships between the score of cognitive test and measured value of body composition and α - amylase levels, Pearson‘s correlation coefficient was used.
Results: Significant improvements in cognitive function were detected after intervention, with the strongest correlating variable with the cognitive function and body composition comparisons being blood vessel age. For cognitive score, before the intervention was 23.4 points (< 26 points), and it did not meet the cut-off value. After the non-intervention control period of 6 month, when measured again, it was 24.7 points (< 26 points), though with a slight increase in the total score, there was not much changed in each cognitive category. After the intervention, the average total score was 25.8 points (< 26 points), it increased to a score significantly closer to the cut-off value. Next, for α-amylase of the stress measurement results, in the correlation between psychological stress and cognitive abilities, correlation has been observed; the higher saliva amylase that reflects mental stress was, the lower the cognitive ability was (Pearson's product-moment correlation coefficient, r = -0.25).
Conclusions: The cognitive training employing rhythmical exercises and touching not only improved cognitive functions but also reduced stress. Negative correlations were detected between cognitive function and vascular age, and stress levels. Therefore, in order to maintain the cognitive function, it is necessary to improve the dietary life as a means of improving vascular age and perform activities to provide stress relief.

Biography (upto 150 words)
Kazue Sawami is a professor at Nara Medical University and completed her PhD at health science. Her research is about the cognitive abilities of elderly people. Current clinical trials below. UMIN000029749, 000025484.

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