Neuropsychological approach in the investigation of time perception in late life depression

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Late life depression is characterized by changes in time perception which are connected with the state of higher mental functions and their neuropsychological correlates. To the investigation of these connections our study was dedicated.

A complex of methods included the Lurian neuropsychological diagnostics, prospective estimation of 5, 10 and 15 second intervals and production of 1 min interval, retrospective estimation of the length of diagnostics and current time. Participants from control (n=26) and clinical (n=48) groups aged 50-81 were equal in socio-demographic characteristics. According to the hypothesis, in late life depression retrospective estimation deficit would be connected with memory deterioration, therefore, with dysfunction of deeper subcortical structures.

According to the results, in normal aging changes in time perception are connected with spatial deficit of memory, perception and praxis; in prospective judgments attention and control functions play a role. Time perception deficit is connected with dysfunction of deeper subcortical structures accenting in right hemisphere; prospective estimation – with prefrontal structures. In late life depression time perception deficit is connected with attention and control functions deficit; prospective judgments – with praxis; retrospective judgments – with memory deterioration. Prospective estimation deficit is connected with deficit in left-hemispheric structures and inter hemispheric interaction; retrospective estimation deficit – with dysfunction of deeper subcortical structures. In different variants of aging tendencies to overestimation/underproduction of short intervals are connected with left-hemispheric dysfunction; to underestimation/overproduction – right-hemispheric dysfunction. Consequently, the hypothesis was approved and a full picture of interconnections between time perception and other functions and their neuropsychological correlates in late life depression was obtained.

Biography

Mikeladze Lika Igorevna has completed her PhD at the age of 27 years from Lomonosov Moscow State University. She is a pedagogue psychologist at the City Psychological Pedagogic Center, Moscow. She has published 4 papers in reputed journals and has attended more than 10 international conferences. She is a member of The International Time Perspective Network and The International Society for the Study of Time.

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