

The effect of the structure of a cognitive resource and compliance on the prognosis of Alzheimer's disease

Sidenkova Alena , Serdyuk Oleg
Ural State Medical University
Russia. Ekaterinburg

The prevalence of later dementia in Russia: There were about 18 million elderly people in Russian population in 2013 (Russian Federation Statistical Bulletin, 2015); The estimated number of people with dementia is from 1,2 millions to 1,5 millions people. It is 6,7%-8,3%; Thus, dementia is often found in modern Russian society.

Cognitive reserve is the brain's ability for functional compensation and to minimize the clinical manifestation of cognitive failure.

Prospective studies show that people with high cognitive reserve have a lower risk of developing dementia.

The symptoms of dementia do not appear until you overcome a critical boundary damage of the brain substance.

The progressive brain atrophy is the basis for the clinical manifestations of dementia in neurodegenerative diseases, but correlation between the degree of brain damage and cognitive impairment is not linear

Risk factors for reduced cognitive reserve:

Age is the strongest independent risk factor for decreasing cognitive reserve.

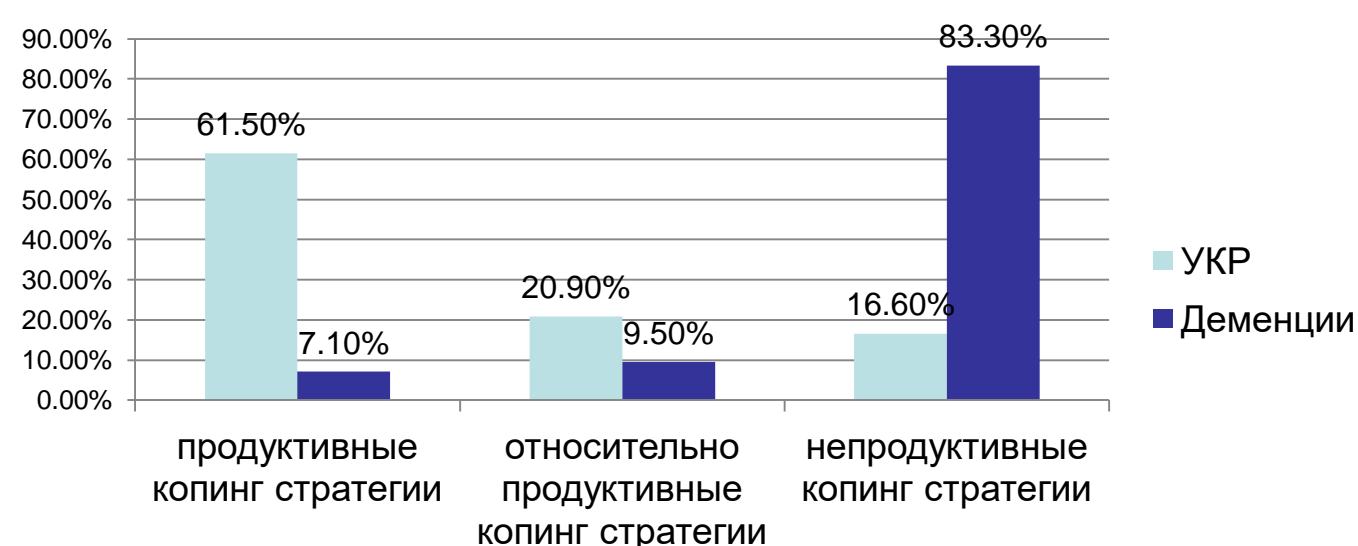
Cognitive disorders, worse than age norm, but less dementia, were met at 11-17% of elder and old people in the population.

The risk of developing the syndrome of mild cognitive disorders in patients older than 65 years is 5% for 1 year.

The risk of developing the syndrome of mild cognitive disorders in persons older than 65 years is 19% over 4 years.

Mild cognitive disorder often has a progressive course.

Mild cognitive disorder is often the beginning of dementia. The risk of dementia is 15% for 1 year and 55-70% over 5 years.

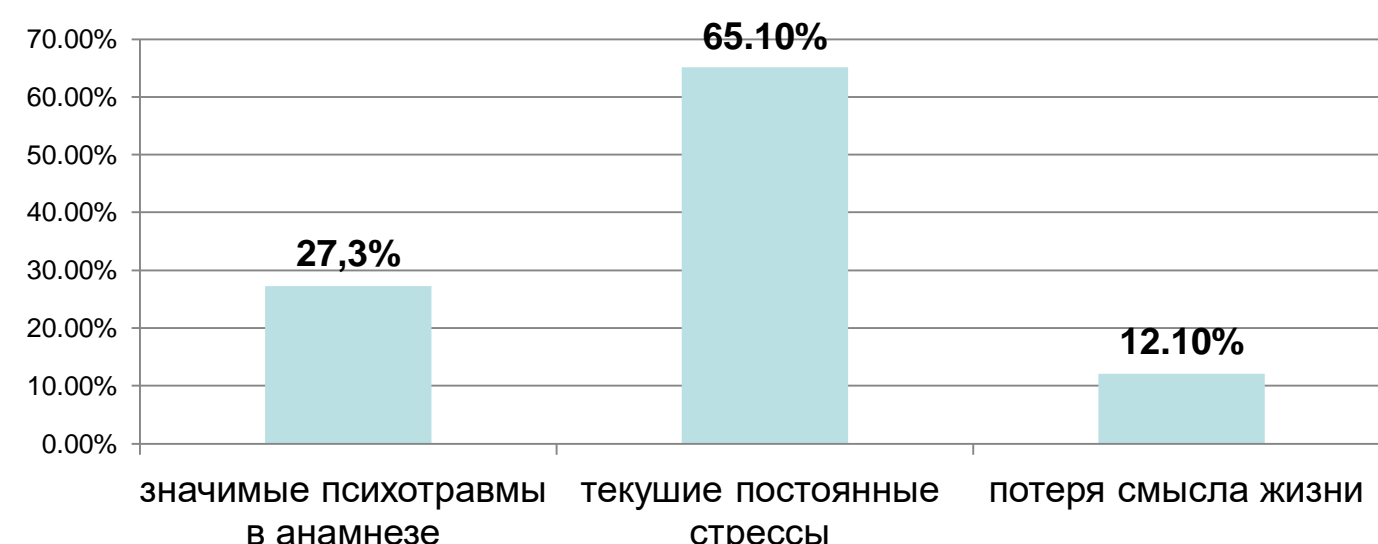


The active mechanism of cognitive reserve is the brain's ability to make better use of existing neuronal connections and, if necessary, to include a new alternative associative way

The passive mechanism involves the structural characteristics of the brain:

The volume of the brain

The number of functioning synapses having a buffer function against damage



The concept of cognitive reserve suggests possible the biological and psychosocial causes of heterogeneity of the dynamics of cognitive impairment in the early stages to atrophic-degenerative diseases of the brain.

The concept of cognitive reserve helps to explore and develop individual programs for the prevention of severe cognitive disorders.