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## Vascular Dementia and Neurodegenerative Diseases

### Improving balance and falls prevention for patients with cognitive impairment after stroke or brain tumors

**Andrey Borisov<sup>1</sup>, Vyazgina E.M.<sup>1,2</sup>, Polezhaeva A.Yu.<sup>1</sup>, Ivanova N.E.<sup>2</sup>**

<sup>1</sup>Rehabilitation Center "Sputnik in Komarovo", Saint Petersburg, Russia

<sup>2</sup>Polenov Neurosurgical Institute – branch of the Almazov National Medical Research Centre, Saint Petersburg, Russia

The problem of falls among elderly patients remains one of the most urgent in the rehabilitation of patients with CNS damage. Physical exercises and household adaptation classes have the level of evidence of 1A and are most effective in patients with ataxia and paresis. Biofeedback systems are used for physical treatment patients with cognitive impairment. Materials and methods. The group 1 (n=10) with mild hemiparesis after stroke. The group 2 (n=6) with mild hemiparesis after total removal of brain tumors. The average MoCA values in group 1 were 21 (18; 24 points), in group 2 - 23 points (18; 25 points).

Described changes contributed to a decrease in the risk of falls in patients with ataxia in both groups; the dynamic in both group was significant (T1=2,5, T2=2,5, p<0,05) There was not any fall during this period. When comparing the results between the groups, the differences were statistically unreliable (T=7.5, p=0.05). This indicates a comparable effectiveness of rehabilitation for both groups. Changes in functional status were significant in both groups.

**Conclusion.** Patients with neuro-oncological diseases require individual rehabilitation programs, including primarily physical exercises, classes in household adaptation (occupational therapy), individual psychotherapy for both patients and their relatives. The multidisciplinary approach developed in stroke rehabilitation also takes place in the rehabilitation of neuro-oncology patients and leads to improving the quality of life of the patients themselves and their relatives from the first weeks after the surgical treatment, and facilitate the subsequent stages of complex treatment.

### Biography

Andrey V. Borisov is the head of the rehabilitation center and expert in the field of vascular neurology. Under his leadership, a team of specialists embodies an individual approach to rehabilitation after a stroke and brain injury. His research interests are neurodegenerative diseases and improving the quality of life of patients and their families.



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## Vascular Dementia and Neurodegenerative Diseases

### Early dementia screening in management of the aging veterans

**Winifred Dedo**

*Sumy State University, Ukraine*

**Introduction:** There is a significant increase in the range among veterans because of the aging of the veteran population and a high prevalence of dementia risk factors. The most common dementia in veteran are reported to be Alzheimer's disease and vascular dementia, with other forms being less common. For early detection of dementia, a rapid screening tests would be extremely useful, as they could help doctors to decide whether or not to proceed with more in-depth clinical evaluation, i.e. neuroimaging.

**Material and methods:** To examine the risk of dementia among veterans we conducted a randomized study of the 103 patients aged 60 to 80 years old of the Sumy Region Affair Hospital and Sumy City Primary Care Center. Patient of group 1 (63 persons) were the veterans (aged  $69\pm 4,1$  years), patients of group 2 (40 persons) have not been participating in war conflicts (control group, aged  $71\pm 3,6$  years old). To all the patient were conducted clinical interviewing and physical examination. For interviewing we` used particular tools (Min Mental State Examination (MMSE), Early Dementia Questionnaire (EDQ), and Geriatric Depression Scale (GDS). The authors had full access to and take full responsibility for the integrity of the data

**Result:** It was found that prevalence of dementia in group 1 was 72.8% by EDQ and 45.5% by MMSE, in group 2 it was 32.8% by EDQ and 14.1% by MMSE respectively. The strongest predictor of possible early dementia among veterans was complaints of memory problems (56.2%) followed by complaints of concentration problems (44.3%), emotional problems (24.75%) and sleep disturbances (23.4%). Socio-demographic factors, medical problems and smoking status were not associated possible dementia ( $p>0.05$ ), despite that over 65% of the elderly in both of the groups had chronic illnesses.

**Conclusion:** Early screening for dementia using questionnaires should be recommended at the primary care level in order to make timely decisions about further examination and timely treatment of patients. However, further research is required.