

Comparative efficiency of neuroprotective, glutamatergic and complex therapy of patients with vascular dementia

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Abstract: The problem of dementia in modern medicine becomes one of the most topical problems of nowadays which is associated with marked life quality aggravation of patients suffering from this disease and their disablement.

Keywords: Dementia, scales, therapy, cognitive disorders, post-stroke dementia, subcortical dementia.

The article covers the issues related to development of dementia. A clinical syndrome characterized by acquired progressive cognitive dysfunction. Not associated with normal age-specific, which affects social adaptation of patients[2]. The author provides accurate definition of mild cognitive disorders as clinical condition, presents its diagnostic criteria and types, as well as diagnostic criteria for dementia associated with Alzheimer disease, and vascular dementia[1].

The 2nd type diabetes mellitus and cognitive disorders are two most rapid chronic conditions, determining at patients of older 60 years. At this age period DM is found at 18-20% of

patients, cognitive disorders - on average, at 25% of patients, including dementia at 6 % of patients, and moderate cognitive disorders at 19 % of patients[4]. For last years prevalence and, respectively, social value of both conditions are increasing for the reason of increasing the number of old people among population. Study of connection between cognitive disorders and DM may help to find one of the ways, preventing from increasing of sickness rate with dementia which, according to the opinion of some specialists, has "chances" to become the main "epidemic" of the XXI century [3].

The analysis of comparative efficiency of various types of therapy in patients with

diabetic dementia has revealed differences in preparations effect on cognitive and functional constituents depending on the clinical form, dementia gravity and stage of therapy[5].

Comparison of influence efficiency of the studied therapeutic methods according to MMSE scale indicated rather early and evident Gliatiline effect on reliable improvement of overall estimate at the early stage of treatment in diabetic dementia of mild form.

At the furthest stage of attendance the Gliatiline influence on improvement of overall estimate has been considerably marked in subcortical dementia irrespective of the case severity. At the complete stage of attendance the complex therapy with Gliatiline and Alzepile in patients with mild postapoplectic dementia has been occurred to be more effective with regard to scale overall estimate.

Table 1.

Comparative efficiency of preparations according to MMSE (total number in a scale) in patients with diabetic dementia at the beginning and end of the attendance. (M±δ)

Therapy group		Gliatiline		Alzepile		Gliatiline + Alzepile	
		start терапии	ending-е терапии	start терапии	ending терапии	start терапии	ending
Subcortical dementia деменция	mild	21,6±3,9	25,7±4,1 **	21,8±2,9	22,2±3,1	22,1±2,9	26,7±3,7** *
	moderatee	15,8±2,2	18,8±3,0 5**	15,2±2,9	16,1±2,5	15,4±1,9	17,1±2,2**
Post-stroce dementia	mild	22,1±3,8	25,8±4,8 *	22,4±2,7	25,6±4,2*	21,2±2,8	25,2±3,4** *
	moderatee	15,8±2,6	17,3±3,5	16,5±2,9	17,0±2,45	17,1±2,9	17,6±3,5

**Note: differences as compared with the beginning of therapy are authentic.
p<0,05, ** p<0,01, *** p<0,001**

Comparison of influence efficiency of the three treating methods on separate indices of MMSE scale showed rather early and marked Gliatiline effect on indices of orientation and attention in subcortical dementia irrespective of the case severity, but the preparation influence on information reproduction index has been rather evident in moderate subcortical dementia. In postapoplectic dementia Gliatiline effect occurred to be more effective on speech function.

The complex therapy with Gliatiline and Alzepile proved to have more evident effect on speech indices irrespective of dementia severity in its every clinical form.

In mild postapoplectic dementia the effect of complex therapy has been marked on remembering index, in moderate dementia at the furthest stage of the attendance the attention index has been more improved.

Improvement of orientation and speech indices have been occurred in Alzepile therapy in subcortical and postapoplectic dementia, but in comparison with the effect of the complex therapy and Gliatiline the effect of Alzepile on the given indices has been occurred to be less marked.

In every form of moderate dementia Alzepile therapy proved to be evidently marked on memorization index.

In every type of therapy over the period of three year-observation some changes in dementia gravity have been taken place in groups of patients of every clinical form of dementia. At the complete stage of three year-observation and therapy in 62 patients (44,3%) with mild dementia the overall estimate according to MMSE scale has composed more than 24 points, i.e. severity of cognitive disturbances in these patients turned to be exceeded the limits of dementia, in 31 (43,05%) patients out

of them with subcortical dementia and in 31 patients (45,6%) - with postapoplactic dementia. In patients with mild form of dementia, irrespective of the clinical form, complex therapy with Gliatiline and Alzepile proved to be more effective with regard to the influence on the severity of dementia, in patients with subcortical dementia - therapy with Gliatiline, in patients with postapoplactic dementia - therapy with Alzepile. (Table 12.)

Table 2

Influence of various types of therapy on changes of dementia severity over the course of observation period

Therapy group		MMSE, total score		
		Initiation of therapy	End of therapy	
		20-24 score	20-24 балла	> 24 баллов
Subcortical dementia	• Gliatiline	24 (100%)	13 (54,2%)	11 (45,8%)
	• Alzepile	24 (100%)	21 (87,5%)	3 (12,5%)
	• Gliatiline + Alzepile	24 (100%)	5 (29,2%)	17 (70,8%)
Post-stroce dementia	• Gliatiline	23 (100%)	15 (65,2%)	8 (34,8%)
	• Alzepile	23 (100%)	12 (52,2%)	11 (47,8%)
	• Gliatiline + Alzepile	22 (100%)	10 (45,5%)	12 (54,5%)

At the complete moment of three year - observation period and therapy in 31 patients (23,5%) with mild dementia the overall estimate according to MMSE scale has composed more than 19 points, i.e. dementia gravity has been changed to the mild case, in 15 patients out of them (20,8%) - with subcortical dementia and

in 16 patients (26,6%) - with postapoplactic dementia. In patients with moderate dementia, irrespective of the clinical form, therapy with Gliatiline has been occurred to be more effective with regard to the influence on the severity of dementia. (Table 13).

Table 3

Influence of various types of therapy on changes of dementia severity over the course of observation period

Therapy group		MMSE, total score		
		Initiation of therapy	End of therapy	
			10-19 score	10-19 баллов
Subcortical dementia, number of patients, (n,%)	• Gliatiline	24 (100%)	14 (58,4%)	10 (41,6%)
	• Alzepile	24 (100%)	24 (100%)	0
	• Gliatiline + Alzepile	24 (100%)	19 (79,2%)	5 (20,8%)
Post-stroce dementia, number of patients, (n,%)	• Gliatiline	20 (100%)	14 (70%)	6 (30,0%)
	• Alzepile	19 (100%)	15 (78,9%)	4 (21,05%)
	• Gliatiline + Alzepile	21 (100%)	15 (71,4%)	6 (28,6%)

Estimation of influence efficiency of the therapy according to ADAS-cog+ scale has shown considerably marked effect of the complex therapy with Gliatiline and Alzepile on reducing the total number in a scale at the early stage of therapy irrespective of dementia gravity in its every clinical form.

In subcortical moderate dementia the influence of the given type of therapy on reducing the total number in a scale at the furthest stage of attendance proved

to be more clearly marked than the influence by Gliatiline and Alzepile. At the furthest stage of attendance the effect of Gliatiline therapy on reducing the total number in a scale has turned out to be considerably marked in mild cases of subcortical and moderate postapoplastic dementia, and Alzepile therapy has had more evident effect on reducing the total number in a scale in case of mild postapoplastic dementia (Table 14).

Table 4

Comparative efficiency of preparations according to ADAS-cog (total number in a scale) in patients with diabetic dementia at the beginning and end of observation. (M±δ)

Therapy group		Gliatiline		Alzepile		Gliatiline + Alzepile	
		Initiation of therapy	End of therapy	Initiation of therapy	End of therapy	Initiation of therapy	End of therapy
Subcortical dementia	mild	23,8±5,4	11,2±1,5** *	24,0±5,1	18,6±4,5** *	23,3±5,9	12,7±4,3* **
	moderate	37,2±10,5	25,2±7,3** *	29,2±9,25	21,3±5,5** *	31,5±8,5	17,5±2,1* **
Post- stroke dementia	mild	23,1±7,4	13,25±7,6* **	26,0±8,4	14,0±4,3** *	18,4±3,9	9,8±1,8** *
	moderate	27,6±7,7	15,8±8,4** *	28,5±4,7	18,0±2,75* **	28,0±4,75	17,0±2,5* **

Note: differences as compared with the beginning of therapy are authentic. p<0,05, ** p<0,01, * p<0,001**

While comparing the influence efficiency of the three therapeutic methods on separate indices of ADAS-cog+ scale it has been revealed rather early and marked Gliatiline effect on indices of memory, learning, acquisition of new information, constructive praxis and executive functions in case of mild dementia irrespective of the clinical form.

Complex therapy with Gliatiline and Alzepile at the furthest stage of attendance proved to have rather evident influence on visual attention regardless of dementia gravity in its every form. In case of mild subcortical dementia - on praxis indices. By means of complex therapy in every clinical form of dementia at the furthest stage of attendance the improvement of indices of memory, learning, acquisition of new information have been noted, but in comparison with the effect of Gliatiline

therapy, the effect of complex therapy on the given indices has been less marked.

Alzepile therapy has greater influence on improvement the indices of praxis and understanding of the speech in moderate subcortical dementia, in postapoplastic dementia the Alzepile therapy improves the indices of visual attention as well as with complex treatment improves the indices of executive functions.

Estimation of influence efficiency of the therapy according to MoCa test scale has shown, that Gliatiline has rather early and marked influence on the indices of intellectual functioning of patients in subcortical dementia irrespective of the case severity. In postapoplastic dementia Gliatiline has more effect on the indices of every-day and motional activities. Complex therapy with Gliatiline and Alzepile at the early stage mostly

influences on the patient's abilities for self-service and self-care, motional activity and daily contact in every clinical form of dementia irrespective of the case severity. Alzepile therapy influences on improvement of indices of intellectual functioning of patients, common and motional activities in every form of dementia, but in comparison with the effect of complex therapy with Gliatiline, the effect of Alzepile therapy on the given indices has been less marked.

Estimation of influence efficiency of therapeutic methods on the rate of cognitive processes and executive functions of patients has showed rather early and greater effect of Gliatiline therapy in every clinical form of mild dementia. At the the furthest stage Gliatiline effect proved to be considerably

evident in mild subcortical dementia, and in moderate subcortical dementia - the effect of complex therapy by preparations.

Estimation of influence efficiency of therapeutic methods on optical-space gnosis has revealed rather early and greater influence of Gliatiline therapy in postapoplactic dementia irrespective of the case severity. At the the furthest stage of attendance Alzepile effect on improvement test estimation has been greater marked than the effect of complex therapy and Gliatiline. Influence of the complex therapy by preparations on the space functions in subcortical dementia proved to be considerably marked as well as at the early stage and at the furthest stage of attendance irrespective of dementia gravity.

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