

The use of Shlemnik Baikal extract as a geriatric  
funds

for the treatment of patients with discirculatory encephalopathy

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V quality geriatric funds for treatment sick with  
For stage I discirculatory encephalopathy, an extract from the roots of *Scutellaria baikalis* (ESB) was used on an outpatient basis. We examined 29 patients aged 50 to 75 years who received ESB at a dose of 0.5 g, 2 times a day for 45 days. Subjective complaints, characteristics of the asthenoneurotic symptom complex and the results of neuropsychological memory testing were assessed in dynamics. It has been shown that ESB is well tolerated by patients and has a beneficial effect on general well-being, emotional-affective sphere and mnestic functions.

Currently, in geriatric pharmacotherapy, a group of drugs is distinguished - geroprotectors, used both for the treatment of the elderly and for the prevention of aging. It was found that geroprotectors reduce the intensity of free radical oxidation, reduce the content of lipid peroxidation products, optimize oxygen consumption, increase hematopoiesis and have an antitoxic effect [8, 9]. Geroprotectors include biologically active substances, vitamins, trace elements, biogenic stimulants of plant and animal origin, adaptogens. Of course, herbal medicines can also be classified as geriatric drugs [3]. In recent years, they have been widely prescribed in the rehabilitation period of many diseases.

Taking into account the above, for the treatment of stage I discirculatory encephalopathy (DE), we have proposed a skullcap extract (ESB), which contains a large amount of flavonoids, tannins, resins and other biologically active compounds [6, 7]. The aim of this study was to determine the pharmacotherapeutic efficacy of a dry extract from the roots of *Scutellaria baicalensis* G. in the treatment of patients with stage I DE.

#### MATERIALS AND METHODS

The study included 29 outpatients - 16 women and 13 men with a diagnosis of DE stage I. The average age of the patients was 62.5 years (from 50 to 75 years). The diagnosis was made in accordance with the Russian classification [4, 12]. ESB was administered at a dose of 0.5 g, 2 times a day for 45 days. The sick were

examined three times: before treatment, on the 21st and 45th days of treatment.

Evaluation of the effectiveness of treatment was carried out on the basis of a clinical study and a questionnaire of patients, taking into account the main subjective symptoms (headache, dizziness, noise in the head, weakness, increased fatigue) [4]. In order to study the differentiated effect of ESB on various components of the asthenoneurotic symptom complex, groups of symptoms characterizing asthenic, anxious, somatovegetative, proper neurotic, depressive, amnesic and dyssomnic disorders were identified and separately assessed. Since all patients had amnesic disorders, a neuropsychological study of the dynamics of memory parameters was carried out [11].

The data obtained were processed statistically by generally accepted methods, the reliability of differences was assessed using the parametric Student's t-test at  $p < 0.05$  [2].

## RESULTS AND DISCUSSION

All patients completed the study. During the course of treatment, no reactions were noted that could be regarded as side effects of ESB.

Positive changes in the condition of patients were noted already at 2-3 weeks of treatment, ESB primarily had a therapeutic effect on the general condition of patients, Starting from the 3rd week and until the end of treatment, patients noted a decrease in weakness, fatigue and cerebral complaints (headache, dizziness, etc. noise in the head).

To the greatest extent, the effectiveness of therapy was reflected in the structure of the asthenoneurotic symptom complex (Table 1).

Table 1

Dynamics of asthenoneurotic symptom complex during ESB therapy

Symptom block	Days of examination		
	Day 0	Day 21	Day 45
	Number of patients		
Asthenic %	291 (100)	61 (55)	0 (34)
Anxious %	27 (93)	19 (65)	ten (34)
Somatovegetative %	twenty (68)	1 (37)	17 (24)
Neurotic % '	21 (72)	fourteen (48)	5 (17)
Depressive %	16 (55)	nine (31)	7 (24)

Amnestic %	29 (100)	24 (82)	21 (72)
Dyssomnic %	15 (51)	eight (27)	5 (17)

The highlighted blocks of symptoms made it possible to assess the spectrum and severity of the pharmacotherapeutic action of ESB. The effect of ESB on asthenic, anxiety and neurotic disorders was manifested in approximately the same and rather high degree of reduction - 66, 59 and 55%, respectively; somatovegetative, dyssomnic, depressive and amnestic disorders were reduced to a lesser extent - 44, 34, 31 and 28%, respectively,

The dynamics of memory indicators was assessed according to the results of the first, last and delayed perceptions, as well as the memorization time required to memorize 10 words. Improvement in indicators was noted already at the time of the interim examination. Differences in the number of words in the first, last and delayed perception were statistically significant both between the first and intermediate and between the intermediate and last studies ( $p < 0.05$ ). The dynamics of memorization time was similar (Table 2).

Table 2

Test	Day 0	Day 21	Day45
Memorizing 10 words: First perception	5.11 $\pm$ 0.11	5.6 $\pm$ 0.13 *	5.8 $\pm$ 0.13 **
Last perception	8.0 $\pm$ 0.13	8.41 $\pm$ 0.11 *	8.8 $\pm$ 0.12 **
Delayed Perception	6.5 $\pm$ 0.14	7.3 $\pm$ 0.11 *	8.0 $\pm$ 0.13 **
Memorization time	143.5 $\pm$ 4.10	129.7 $\pm$ 3.57 *	124.0 $\pm$ 3.55 **

Note:

\* differences are significant at  $p < 0.05$  compared to the values before treatment

\*\* Differences are significant at  $p < 0.05$  compared to the values before treatment and with indicators on day 21

The results obtained indicate a good tolerance of ESB and its rather high efficiency in the treatment of stage I DE. The therapeutic effect of the test substance manifested itself in a significant decrease in subjective symptoms, in a positive dynamics of the asthenoneurotic symptom complex and in an improvement in memory indicators. It is known that flavonoids and other biologically active substances improve brain metabolism at the molecular-cellular level. antioxidant effects (restoration of the energy-synthesizing function of mitochondria and inhibition of free radical oxidation), which protect brain cells under conditions of ischemia and hypoxia [1, 5, 10],

Thus, the obtained results allow us to recommend the *Scutellaria baikalis* extract for the treatment of patients with stage I discirculatory encephalopathy,

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Namsaraeva, G.T. The use of Shlemnik Baikal extract as a geriatric agent for the treatment of patients with discirculatory encephalopathy / G.T. Namsaraeva, E.M. Bakhanova // Traditional medicine. - 2003. - No. 1 (1). - S.25-27.

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