

DEVELOPMENT OF COMPOSITION AND ANALYSIS OF COLLECTION FOR IMPROVEMENT OF CEREBRAL CIRCULATION OF BLOOD

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Cerebrovascular pathology was and remains among the most medical and social issues of the day in all figures of the world. Cerebrovascular diseases are one of leading reasons of morbidity, death rate and resulting in disability of population of our country. According to data of WHO, a death rate from the vascular diseases of cerebrum is 30-50% from all diseases of circulation of blood or near a 14% general death rate of population. Presently there is a tendency to the height and "rejuvenation" of cerebrovascular diseases, what is assisted unfavorable economic and ecological situation in Ukraine, often inadequate treatment of initial forms of this pathology. From data of official statistics of Ministry of Health in Ukraine, in 2002 more than 2 million persons are registered with different cerebrovascular diseases, amount of patients with this pathology from year to year grows steadily. For the last 10 years prevalence of cerebrovascular diseases increased from 3776,3 in 1992 to 6917,6 in 2002 on a 100 thousand population, so its grew in 1,8 time. It is needed to notice, that the stake of cerebral strokes in the structure of vascular diseases of brain in 2002 made just 4%, or 294 on a 100 thousand population. Cerebrovascular diseases in age 20-59, from data of epidemiology researches, in the structure of general morbidity 20%%, make from them initial displays of insufficiency of cerebral circulation of blood – 68%%, transient violations of cerebral circulation of blood is 25%%, dyscirculatory encephalopathy and strokes – 7%. With age morbidity increases a stroke in two times for every subsequent decade. Prevalence of cerebrovascular diseases among women in 2,3-2,8 time higher, than among men.

So, wide distribution, high death rate of population, because of cerebrovascular diseases rank together a prophylaxis and treatment of these illnesses with the most actual medical problems and stipulate the necessity of development of new, more accessible and more effective medicinal facilities, including phytogenous.

Analysing and generalizing these literatures about the medical plants applied for treatment of violations of cerebral circulation of blood, we offered collection of

next composition : hawthorn garden-stuffs (*Grataegi fructus*), periwinkle small grass (*Vincae minoris herba*), hop of infructescence (*Lupuli strobili*), uliginose grass (*Gnaphalii uliginosi herba*), melissa grass (*Melissae herba*), melilot grass (*Meliloti herba*). The components of collection possess spasmolytic, making better cerebral circulation of blood, hypotension, ataraxic, by an antioxidant, diuretic action.

Collection was prepared according to the requirements of State Pharmacopoeia of Ukraine, addition 2.

The next stage of our researches was a study of quality composition of bioactive substances of the offered collection. By means of quality reactions in collection for the improvement of cerebral circulation of blood were discovered free and constrained sugar, polysaccharides, coumarins, flavonoids, tannic substances of the condensed group, saponins and nitrogenated connections.

In the offered collection for the improvement of cerebral circulation of blood quantitative maintenance of bioactive substances was certain by us. So, maintenance of polysaccharides was determined by a gravimetric method, that was 9,52%. Determination of maintenance of coumarins was conducted by a photolorimetric method. Their maintenance was 0,81%. A table of contents of hydroxycinnamic acids, certain a spectrophotometry method in a count on chlorogenic acid, was 1,50%. Also by a spectrophotometry method maintenance of flavonoids was certain in a count on rutin – 2,24%. Tannic substances determined a permanganometric method in a count on tanninum. Their maintenance was 9,70%. The sum of free organic acids was set by an alkalimetric method in a count on apple acid – 1,11%. A table of contents of ascorbic acid was 0,13%.

For standardization of the offered collection and development of project of methodologies of control of quality on him numerical indexes were certain by us: loss in-bulk at drying – 12,45%, ash general – 1,31%, ash insoluble in a 10% solution of hydrochloric acid, – 0,42%, extractive substances water-extractable, – 19,56%, and also morphological and anatomic diagnostic signs of this collection.

The got results testify to perspective of further study of the offered collection and will be used for development of corresponding divisions of methodologies of control of quality on collection.