

In the course of experimental studies on the model of Acetaminophen-induced AKI, the expressive antioxidant activity of glutathione was proved, which was confirmed by the decrease in lipid and protein peroxidation processes in blood plasma and renal tissue, as well as an enhancement of enzymatic activity (increase in activity of endogenous glutathione peroxidase in blood plasma by 24,6%, in kidney tissue by 34,9%), and on the non-enzymatic level of the antioxidant defence (increase in the SH groups level by 25,1%, decrease of ceruloplasmin – by 22,2%) compared to the model pathology group.

The antioxidant potential of glutathione is confirmed by an increase in the antioxidant-prooxidant index in kidney tissue and a significant decrease in the index of oxidative stress in the blood of treated animals. The cytoprotective effect of glutathione was confirmed by a reduction in gamma-glutamyltranspeptidase activity in urine by 2,4 times ($p < 0.01$) compared to untreated animals. Maintenance of the cellular energy balance is an important mechanism of the nephroprotective effect. Co-treatment with glutathione contributed to an increase in the activity of succinate dehydrogenase by 1.5 times compared with Acetaminophen-induced AKI. Under the conditions of renal damage, glutathione promotes the compensatory activation of the aerobic glycolysis and activates the energy-synthesizing function of nephrocytes.

The results of the experimental studies show the nephroprotective activity of glutathione in conditions of Acetaminophen-induced AKI. Nephroprotective effect manifests restoration of the prooxidant-antioxidant and energy balance in kidneys of animals with Acetaminophen-induced AKI. The obtained results substantiate the relevance of further research to broaden the spectrum of glutathione use and optimize the pharmacotherapy of renal pathology.

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**MARKETING ANALYSIS OF PHYTODRUGS BASED ON MARSHMALLOW
(*ALTHAEA OFFICINALIS* L.)**

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The use of plants as drugs has a long history. The first mention of medicinal plants and their properties are found in the earliest written records of human culture and morphological descriptions of plants and their use date back to the 7th century B.C. One of such widely used plants was marshmallow (*Althaea officinalis* L.), which is used since the IV century. B.C. The tradition of marshmallow usage has survived to our time. Therefore, a deeper study of this plant and drugs based on it is still relevant.

Therefore, the aim of the study was to conduct a marketing analysis of the phytodrugs range based on *Althaea officinalis*, which are presented on the pharmaceutical market of Ukraine.

Marshmallow drugs are used to treat the acute and chronic inflammatory diseases of the respiratory system, gastrointestinal tract, ulcers and wounds and have expectorant, enveloping and anti-inflammatory effects; they are also used as an external remedy for joint and muscle pain as well as relaxing and helping emollient.

The first stage of the study was to establish the range of phytodrugs which include marshmallow. The pharmaceutical market of Ukraine is found to represent 28 names of drugs based on marshmallow.

The next stage was to study phytodrugs based on *Althaea officinalis* in accordance with the presented dosage forms. The largest share is made up of syrups - 36%, tablets – 21%, herbal compositions - 14% and chewable tablets - 11%. Other dosage forms (tinctures, oral drops, sprays, lollipops, powders for internal use) account for a total of 18%.

The final stage was the pharmaceutical market analysis according to the country of manufacture. The largest number of presented phytodrugs were domestic producers (23 items) and 5 items of foreign production, which is 82% and 18% respectively.

The data analysis of the State Registration of Medicinal Products established that the leading positions in the pharmaceutical market are occupied by domestic manufacturers, which over time

may lead to depletion of raw materials in Ukraine. Therefore, the greater cultivation and development of new phytodrugs of *Althaea officinalis* L. is valid and up-to-date nowadays.

Fedotova M.S.

STUDY OF THE EPIDEMIOLOGY OF DEMENTIA AND ALZHEIMER'S DISEASE IN UKRAINE AND IN THE WORLD

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The aim of the work was to conduct a study of the epidemiology of dementia and Alzheimer's disease (AD) in Ukraine and around the world. The research used general theoretical methods and methods of epidemiological research.

The results showed that according to statistics, in 2019, about 50 million people in the world suffered from dementia, and almost 10 million new cases are detected each year, and this figure should triple by 2050.

With the improvement of the quality of medical care and pharmaceutical provision of the population in most countries with high socio-economic development, the level of dementia, as a threatening neurodegenerative disease among the population, began to increase gradually. For example, in the countries of the European Union in 2001, the prevalence of dementia was 7.7 million people, and according to forecasts in 2040 the number of patients with dementia is expected to increase to 16 million.

The total number of people with this type of disease in Europe is 9780678 people or 1.57% of the total population.

The incidence of Alzheimer's disease is also gender-dependent. Thus, in European countries, this diagnosis is more common in women than in men. The number of diseases among European women in 2019 was 6,650,228 people, and men - 3,130,449 people, which is twice less than among women.

In Ukraine, since 2018, the incidence of all mental disorders has increased, including symptomatic manifestations of cognitive impairment (2.0%), all forms of dementia (6.0%), vascular dementia and Alzheimer's disease (9.0% each). The structure of dementias is dominated by the vascular form of dementia (62.59%), and AD has been characterized since 2015 by a systematic increase in the proportion (%) from 7.0% to 12.0%. The average prevalence of dementia in Ukraine was 99.72, and Alzheimer's disease - 5.34 people per 100 thousand population. Significant fluctuations in the prevalence of dementia and Alzheimer's disease in different regions of the country. Thus, in the regions of the country these indicators differed 6 or more times. The highest prevalence of dementia was observed in 7 regions (Vinnytsia, Donetsk, Zaporizhia, Zhytomyr, Kharkiv, Cherkasy and Chernihiv) and Kyiv, and AD in 3 regions (Zaporizhia, Kherson, Chernihiv) and Kyiv.

Systematizing the results of research on different groups of epidemiological indicators for all forms of dementia, including AD in Ukraine in the dynamics of the years, we can make a conclusion. Of concern is the increase in the incidence of all forms of dementia and AD since 2018. In addition, it is proved that since 2015, against the background of the unconditional dominance of the vascular form of dementia, the proportion (%) of AD is gradually increasing. It should be noted that there is a significant discrepancy between the epidemiological indicators of Ukraine and world statistics. This indicates the need to implement an effective system for recording and monitoring cases of all forms of dementia, including Alzheimer's disease in Ukraine.