

SECTION 27.

PHARMACY AND PHARMACOTHERAPY

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ANALYSIS OF THE DOMESTIC PHARMACEUTICAL MARKET OF PHYTOREMEDIES BASED ON MARSHMALLOW

Introduction. Cough is a reflex reaction of the body, which is needed to remove foreign bodies, sputum, infection from the respiratory tract [1].

Cough is most often distinguished depending on the presence of sputum in the respiratory tract: unproductive, dry, irritable cough - bronchial sputum is not formed and productive, moist cough - a characteristic formation and accumulation of bronchial sputum.

Productive cough is usually a symptom of viral infections such as colds and flu. It also accompanies other infections, especially lower respiratory tract infections such as bronchitis, bronchiolitis or pneumonia [2]. The infection causes irritation of the mucous membranes of the respiratory tract and the release of thick and sticky sputum in the bronchi. Such mucus (sputum) cannot be coughed up with the help of villi located on the surface of the bronchial mucosa. The airways are blocked and the work of the lungs and breathing becomes very difficult [3].

Cough is the fifth most common reason for an adult to see a doctor. In Europe over 30% of the population aged 20 to 50 suffer from cough [4]. Wet cough is treated with drugs that dilute

thick mucus and stimulate expectoration - expectorants. For the treatment of wet cough the plants with anti-inflammatory, bactericidal and antimicrobial effects can be also recommended [5].

One of such widely used plants was Marshmallow (*Althaea officinalis* L.), which can be found in the first written mention of medicinal plants since the IV century. B.C. The tradition of using marshmallow has survived to our time. Therefore, a deeper study of this plant and its application is relevant.

The aim of the study. To analyze the range of phytotherapies, dietary supplements and medicinal plant raw materials available on the pharmaceutical market of Ukraine and containing marshmallow.

Materials and methods. Methods of marketing analysis and statistical processing of the obtained data were used for the research. The objects of the study were medicines, dietary supplements and medicinal plant raw materials containing marshmallow available on the pharmaceutical market of Ukraine. The study was conducted on the basis of pharmacies in Chernivtsi and data from the electronic directory "Compendium - drugs".

Results. *Althaea* drugs are used to treat acute and chronic inflammatory diseases of the respiratory system, gastrointestinal tract and have expectorant, enveloping and anti-inflammatory effects.

The first stage was to study the range of drugs based on Marshmallow, which are presented on the pharmaceutical market of Ukraine. After conducting a marketing analysis, it was determined that the domestic pharmaceutical market is represented by 28 names of drugs (Table 1).

Table 1

**List of phytotherapies containing Marshmallow and presented
on the pharmaceutical market of Ukraine**

№ п/п	Name	Manufacturer	Country	Dosage form
1.	Alteyka Halychpharm	«Halychpharm»	Ukraine	Syrup 200 ml, № 1 Chewable tablets 100 mg, № 20
2.	Alteyka-Ternopharm	«Ternopharm»	Ukraine	Syrup 200 ml, № 1
3.	Alteyka	«Ternopharm»	Ukraine	Chewable tablets 120 mg, № 20
4.	Marshmallow roots	«Liktravy»	Ukraine	Roots 60 g pack with int. package, № 1
5.	Marshmallow roots syrup	«Viola»	Ukraine	Syrup 100, 200 ml with a measuring spoon in a pack, № 1
6.	Marshmallow phytosyrup	«Pharmacom»	Ukraine	Phytosyrup 200 ml
7.	Marshmallow roots syrup	«Krasa i zdorovya»	Ukraine	Syrup 200 ml
8.	Altemix	«Zdorovya»	Ukraine	Syrup 25 mg / 5 ml vial 100 ml with a measuring spoon, № 1
9.	Altemix Broncho	«Zdorovya»	Ukraine	Syrup 100 ml with a measuring spoon, № 1
10.	Marshmallow	Solution pharm	Ukraine	Phytosyrup 200 ml
11.	Arida Cough dry remedy for children	«Ternopharm»	Ukraine	Powder for internal use, bottle 19.55 g
12.	Briomoss with althea	Gofarm Ltd	Poland	Spray 30 ml
13.	Bronchostop	Kwizda Pharma GMBH	Austria	Syrup 120ml
14.	Bronchophyt	«AIM»	Ukraine	Collecting filter bag 1.5 g, № 20 Collecting pack of 50, 100 g Tincture complex vial 100 ml, № 1
15.	Gastrophyt	«AIM»	Ukraine	Collecting filter bag 1.5 g, № 20 Collecting pack of 100 g with int. package, № 1
16.	Gastrophyt-Tab	«AIM»	Ukraine	Tablets 0,85 g, № 60

Continuation of Table 1

**List of phyto remedies containing Marshmallow and presented
on the pharmaceutical market of Ukraine**

№ п/п	Name	Manufacturer	Country	Dosage form
17.	Species pectorales №1	«Viola»	Ukraine	Collecting filter bag 1.5 g, № 20 Collecting pack of 50 g with int. package, № 1
18.	Species pectorales №1	«Liktravy»	Ukraine	Collecting filter bag 1.5 g, № 20 Collecting pack of 50 g with int. package, № 1
19.	Imupret	Bionorica	Germany	Coated tablets № 50 Oral drops 100 ml, № 1
20.	Islor	Solution Pharm	Ukraine	Candy № 16
21.	Mukaltin	SRCMMP	Ukraine	Tablets 50 mg, № 10, 30
22.	Mukaltin	«Halychpharm»	Ukraine	Syrup 200 ml with a measuring spoon, №1 Tablets 50 mg, № 10, 30
23.	Mukalitan	«Ternopharm»	Ukraine	Tablets 0,05 g, № 30
24.	Mukalti C	Biodeal Pharmaceuticals Private Limited	India	Tablets №10
25.	Mukolitik Extra	«Zdravopharm»	Ukraine	Chewable tablets 200 mg №12
26.	Mukolitik Forte	Solution Pharm	Ukraine	Tablets 250 mg №20
27.	Linkas	Herbion	Pakistan	Syrup 120 ml, № 1
28.	Tea «Edel №57» from Marshmallow root	«Edel»	Ukraine	Tea, 50g

[author's development]

The second stage of the study was the analysis of the pharmaceutical market of drugs according to the country of manufacture. According to the study, the pharmaceutical market of Ukraine is mostly represented by Ukrainian manufacturers - 23 names. The share of foreign manufacturers was 18% (5 names) (Fig. 1).



Fig.1. Distribution of Marshmallow remedies by producing country

The next stage was the study of drugs based on Marshmallow in accordance with the presented dosage forms. The largest share is made up of syrups - 36%, tablets - 21%, fees - 14% and chewable tablets - 11%. Other dosage forms (tincture, oral drops, spray, lollipops, powder for internal use) account for a total of 18% (Fig. 2).

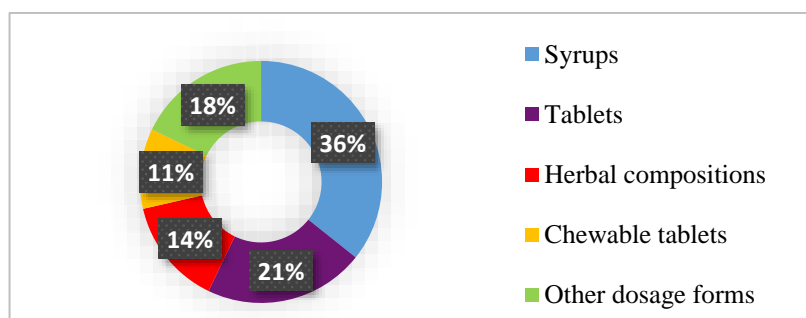


Fig.2. Distribution of althaea herbal medicinal products by form of release

Thus, herbal drugs have been and remain effective, safe, and, therefore, promising for the treatment of wet cough.

Conclusions. The analysis of the data 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. This, in turn, encourages greater cultivation of Marshmallow.

References:

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