

the requirements of HD. At 58% relative humidity, no change was observed in capsules placed in containers of the various materials listed above.

To determine the shelf life of goji capsules, they were packed in glass jars with brown screw caps and in jars with plastic lids, then the quality and quantity of capsules were determined in accordance with the requirements of the ND. To study the stability of the capsules naturally, they were stored at room temperature and checked every 6 months.

Conclusions. The «accelerated aging» method is widely used to create new dosage forms. Since this method is less time consuming, it is the fastest way to study the effect of various process factors, as well as packaging material and types of packaging, on drug stability. The study of drug stability in vivo is accurate and simple, but time-consuming. To study the stability of goji capsules by the "accelerated aging" method, the temperature in the thermostat was taken equal to 40 ° C, and every 46 days the appearance, authenticity, amount of active substance, and capsule disintegration were checked. According to research results, goji capsules have a shelf life of 184 days (2 years at room temperature).

References

1. Guidelines for experimental (preclinical) study of new pharmacological substances / [under total. ed. R. U. Khabrieva]. - 2nd ed., Rev. and add. - M.: JSC "Publishing house" Medicine ", 2005. - 832 p.
2. Guidelines for conducting preclinical studies of drugs. Part one / [ed. A.N. Mironov]. - M.: Grif i K, 2012 .- 944 p.
3. Preclinical studies of medicinal products (guidelines). / [ed. A.V. Stefanov]. - Kiev: Avicena, 2002.- 568 p.
4. GOST 12.1.007-76. Occupational safety standards system. Harmful substances. Classification and general safety requirements. - Moscow: FGUP "Standartinform", 2007. - 7 p.

Comparison study the content of ascorbic acid in herb of *Urtica Dioica* and *Urtica Urens* L.

Orlov A.Ye., Sydora N.V.

The National University of Pharmacy, Kharkiv, Ukraine

Introduction. *Urtica urens* L. and *Urtica dioica* L. are plants belong family *Urticaceae*. *Urtica dioica* L. used in traditional medicine as a hemostatic and diuretic. Also increases the number of erythrocytes and hemoglobin, normalizes blood composition. The leaves of this plant are official in Ukraine and European countries. In addition, *Urtica urens* L. is considered an impurity in *Urtica dioica*, this plant has been used in folk medicine as a hemostatic, antipyretic, wound healing, antirheumatic agent. Since it is known that the leaves of *Urtica dioica* L. contain a sufficient amount of ascorbic acid, it was interesting to study the content of this compound in herb of *Urtica urens* L. in comparison with *Urtica dioica* L.

Purpose of the research. To conducted the comparative study of ascorbic acid concentration in herb of *Urtica urens* L. and *Urtica dioica* L.

Materials and methods. For identify the ascorbic acid was used the chromatographic method. Extraction of ascorbic acid from herbal drugs carried out with distilled water. For this, the raw material was placed in a flat bottom flask, poured with water at room temperature in a feed-extractant ratio of 1:10, mixed and insisted for 20 minutes. The filtrate was applied to a capillary plate Silufol chromatographic grade, dried and chromatographed in the solvent system ethyl acetate-glacial acetic acid (8: 2). The resulting chromatogram was dried in a fume hood and treated with 0.04% aqueous solution of 2,6-dichlorophenolindophenolate sodium. Chromatography was performed using a standard sample of ascorbic acid. The quantitative content of ascorbic acid determined by the titrimetric method. The quantitative association of ascorbic acid was determined by the formula:

$$x = \frac{V * 0,000088 * 300 * 100 * 100}{m * (100 - W)}$$

are: V - the volume of a solution of sodium 2,6-dichlorophenolindophenolate (0.001 mol / l), used for titration, ml; m - the weight of the sample, g; W - loss in mass when drying, %; 1 ml of sodium solution of 2,6-dichlorophenolindophenolate (0.001 mol / l) corresponds to 0.000088 g of ascorbic acid.

Obtained results. After processing the chromatograms of water extracts from herb of *Urtica urens* and *Urtica dioica* with a chromogenic reagent, white spots were found on a blue background, which in color and Rf values coincided with the standard sample. The quantitative content of ascorbic acid in *Urtica dioica* L. herb was 0,13%, *Urtica urens* L. – 0,11%.

Conclusions. Ascorbic acid was identified in all samples. The quantitative content of ascorbic acid in herbal drugs of *Urtica urens* practically did not differ from its content in *Urtica dioica* L. herb, which proves the prospects of using *Urtica urens* herb as a sour of ascorbic acid along with *Urtica dioica* L.

References

1. Грицик А.Р. Доказова фармація: дослідження органічних кислот видів роду сосна та буквиця / А. Р. Грицик, І. А. Сас, Т. П. Мандзій // *Український вісник психоневрології*. – 2013. – Т. 21, вип. 2 (75). дод. – С. 87-89.
2. Державна фармакопея України / ДП “Науково-експертний фармакопейний центр”. 1е вид., 2 допов. X. : Держ. п-во «Науковоекспертний фармакопейний центр», 2008. 620 с.
3. Kregiel D. *Urtica* spp.: Ordinary Plants with Extraordinary Properties /Kregiel D., Pawlikowska E., Antolak H. // *Molecules*. – 2018. – Vol. 23(7). – P. 1664.
4. Upton R. Stinging nettles leaf (*Urtica dioica* L.): Extraordinary vegetable medicine. *J. Herb. Med.* – 2013. – Vol. 3. – P. 9–38.
5. Đurović S. Chemical composition of stinging nettle leaves obtained by different analytical approaches /Đurović S., Pavlić B., Šorgić S., Popov S., Savić S., Pertoničević M., Radojković M., Cvetanović A., Zeković Z. // *J. Funct. Food.* – 2017. – Vol. 32. – P. 18–26.