

QUALITATIVE DETERMINATION OF FLAVONOIDS IN TINCTURE OF *SCUTELLARIA ISKANDERI L.* BY THE METHOD OF DIFFERENTIAL SPECTROPHOTOMETRY

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Relevance. The healing properties of plants of the *Scutellaria* genus from the *Lamiaceae* family have been known since ancient times. On the territory of Uzbekistan, there are 32 representatives of this genus, which include the object of our study - *Scutellaria Iskanderi L.* Until recently, there was no regulatory documentation regulating the authenticity and quality of medicines based on it.

The purpose of this study is to develop methods for the qualitative determination of flavonoids in *Scutellaria Iskanderi L.* tincture.

Methods and techniques. To qualitatively determine the content of flavonoids in *Scutellaria Iskanderi L.* tincture, chemical reactions and chromatographic tests were proposed.

Results.

I. To 1 ml of the drug was added 2 ml of 70% alcohol, 0.1 g. magnesium shavings and 1 ml of concentrated hydrochloric acid. The formation of a red-brown color was observed, indicating the presence of flavonoids.

II. To 1 ml of tincture, 2 ml of 70% alcohol and 2 drops of a 10% solution of sodium hydroxide in 40% alcohol were added. In the presence of flavonoids, the formation of a precipitate was observed.

III. 1 g of *Scutellaria Iskanderi L.* herb was placed in a 25 ml flask and filled with 10 ml of 95% ethanol. The flask was connected to a reflux condenser, heating was carried out in a water bath for 10 minutes from the moment the ethyl alcohol boiled in the flask. The resulting extract was cooled, filtered through a paper filter, and 2 ml were placed in two identical chemical test tubes. After that, 0.5 ml of a 2% alcohol solution of aluminum chloride (test solution) was added to one of the test tubes, and 0.5 ml of 95% ethyl alcohol (reference solution) was added to the second test tube, the contents of both test tubes were mixed. After 20 minutes, 10 ml of purified water was added to both test tubes, the contents were mixed and a yellow-green color was observed on a white background.

IV. Also, for the qualitative determination of flavonoids in *Scutellaria Iskanderi L.* tincture, the method of chromatography in a thin layer of sorbent was used. To do this, 0.01 ml was taken from the alcoholic extraction of the raw material in 70% alcohol and applied to the start line of the Silufol chromatographic plate (8-15 cm). At the same time, 0.005 ml of a 0.1% alcohol solution of a standard sample (GSO) was applied to the start line. Apigenin was used as a standard sample. The plate with the applied samples was dried in air for 5 min, then placed in a chamber with a benzene-acetone solvent system (module 4:1) and chromatographed using an ascending method. When the solvent front reached 14 cm, the plate was removed from the chamber and dried for 10-15 minutes and identified under UV light. Then the chromatogram was developed with ammonia vapor for 3-5 minutes. The manifestation of active luminescence zones in UV light, characteristic of flavonoids, was observed. In this case, the

analyzed solution turned yellow and was noticeably superior in color intensity to the reference solution, which confirms the presence of flavonoids.

Conclusions. The data obtained were used to standardize the tincture of *Scutellaria Iscanderi* L. and approved by regulatory normative documentation.

References.

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