RESEARCH OF AMINO ACID COMPOSITION OF PARSNIP

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Introduction. Plants of genus *Pastinaca* L. is a genus of herbaceous plants of the family *Apiaceae*, the most famous representative of which is the parsnip *Pastinaca sativa* L. This plant has been known since ancient times and is a common food crop. For medicinal purposes the roots are used as a means to correct flatulence, antispasmodic, mainly due to the content of essential oils. Amino acids in combination with other biologically active compounds are show different pharmacological action [3, 5]. Therefore, we consider it relevant to investigate this class of compounds in herbal drugs of *Pastinaca sativa* L.

The aim of study. To study the amino acid composition in root-crop *Pastinaca sativa* L.

Methods of research. The water-alcohol extraction of *Pastinaca sativa* L. root-crop in the ratio of raw material-extractant 1:10 was investigated. Amino acids were identified by paper chromatography in a system of solvents butanol *P* - glacial acetic acid *P* - water *P* (4: 1: 2) in comparison with standard solutions of 1 g / l of amino acids in 96% ethanol P: arginine, β-alanine, methionine -β-alanine, glutamic acid, serine, lysine and cysteine. As a chromogenic agent used solution of 20 g / l of ninhydrin *P* in acetone *P*. After processing the chromatogram was heated for 1 minute at a temperature of 80–100 ºC [1, 2, 4].

The main results. In the process of chromatographic study, the appearance of red and red-violet spots was observed after processing the chromatogram with a developer, which indicates the presence of amino acids in the sample [2]. When comparing the colors of the spots and their Rf values with standard samples in herbal drugs 5 amino acids were identified - arginine, methionine, glutamic acid, serine and lysine. The intensity of staining was dominated by those corresponding to arginine and glutamic acid.

Conclusions. The amino acid composition of *Pastinaca sativa* L. has been studied. The herbal drug are characterized by accumulation of amino acids which influence to the cardiovascular function (glutamic acid, arginine, methionine), it can be taken into account in the future.

References

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