

PP1. PROSPECTS AND SIGNIFICANCE OF A NEW DRUG FROM ASTRAGALUS PLANT

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Cycloartane compounds are produced by plants of the genus *Astragalus* (Fabaceae). Glycosides of plants of the genus *Astragalus* are differentiated by a wide variety of structural types. Most cycloartane glycosides have a number of important properties, such as cardiogenic, hypocholesterolemic, contraceptive, sedative, hypotensive, anti-inflammatory, immuno-stimulating, interferon-inducing activities.

Astragalus pterocephalus Bunge growing in Uzbekistan are a source of triterpene glycosides. The main triterpene glycoside is cyclosiversioside F (astragaloside IV). To obtain a biologically active compound cyclosiversioside F with 95% purity, a proposed method involves extraction with ethanol. The optimal conditions for the isolation and separation of the amount of extract have been tried to obtain cyclosiversioside F. Quantitative analysis of the glycoside was carried out by High Performance Liquid Chromatography HPLC-ELSD.

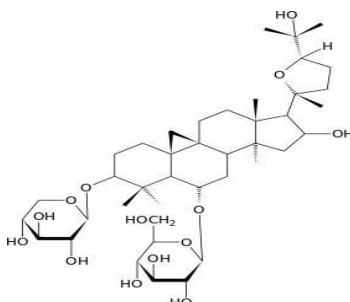


Fig. Cyclosiversioside F or astragaloside IV

Preclinical trials of cyclosiversioside F have been performed and it has been shown that glycoside has cardioprotective activity of a metabolic type of action.

These glycosides do not possess cumulative properties and are not toxic, have a large breadth of pharmacological action. A study of the cumulative properties of cyclosiversioside F showed that at long oral administration of the preparation there were no deviations in animal behavior. Cyclosiversioside F has a stress-protective property.

When considering changes in heart rate, it was found that modeling chronic heart failure, an increase in heart rate was observed. When glycoside and mildronate were administered, no significant changes were observed based on the obtained data

It was found that glycoside has cardioprotective and anti-ischemic activity not inferior and in some cases superior to the reference drug. This study has been carried out with the hope that medicinal plants containing active components will contribute to the creation of new safe agents. Pharmacological studies have shown that cyclosiversioside F isolated from *A. pterocephalus* have cardioprotective effect of a metabolic type of action comparable to that of the known cardioprotector mildronate.