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Study of the Effect of Common Flavanoids of the Medicinal Plant Mavrak (Salvia Officinalis) on Cellular Processes

Kadirova Barno
National University of Uzbekistan 2-year master's degree in biophysics and biochemistry

Abstract: *It is undeniable fact that, about 50% of medicines produced at pharmaceutical enterprises worldwide are being prepared from raw materials of medicinal plants. The rapid development of the pharmaceutical industry in the absolute majority of countries, including the Republic of Uzbekistan, is the reason for a sharp increase in the demand of such enterprises for raw materials of medicinal plants. It should be noted that due to the limited reserves of medicinal plants growing naturally, the demand for medicinal plant raw materials of enterprises of the pharmaceutical industry can only be met mainly by growing medicinal plants. In this article, opinions and considerations will be made about the study of the establishment of the common flavanoids of the sage medicinal plant in cell cells.*

Key words: *Marvak (Salvia officinalis), medicinal plant, cell, flanavoids, benefits, composition, application in medicine.*

Uzbekistan also has many medicinal plants, which are mostly found in mountainous areas. The study and use of their medicinal properties in practice is the main task. And medicinal plants that are absent in Uzbekistan will have to be introduced and adapted to our nature. Introduction-(introduction meaning introduction, displacement) means bringing or moving a plant species to a place where it has not previously grown.

Chemical investigation of the butanol fraction obtained from Salvia officinalis *palaestina* growing wild in Jordan resulted in the isolation and characterization of three compounds including two phenolics and one flavonoid along with other five known compounds.

Marvak is also known in scientific terms as “mavrak” or “shalfey”. Marmarak is a perennial herb or semi-shrubby species and a member of the mint family. The motherland is the Mediterranean coast. There are 900 species of this plant in the world, of which 97 species reach Turkey. And 51 of its species are among the local i.e. endemic plants in Turkey. In folk medicine, it has long been used against various diseases. In medicine, a leaf is used. It contains essential oil, flavonoids, ursol and oleanolic acids, additives and other substances. As a disinfectant and anti-inflammatory agent, it is used for rinsing the mouth in inflammation of the upper respiratory tract, inflammation of the mucous membranes of the throat, mouth and gums.

Infused with a leaf of the plant, it is drunk to rinse when sore throat, open appetite and satisfy thirst in fever. The famous hakim Hippocrates called Marvak (Salvia officinalis) a "sacred plant". Excessive consumption of this plant, which has many benefits for human health, also causes some concerns. For example; pregnant women are not recommended to consume marmalade tea. It is also necessary to be careful when patients who are being treated for diabetes also consume their tea. In Turkey, the Marvak (Salvia officinalis) plant is consumed as tea. The leaves of the plant, on the other hand, are used to give aromas to salads of different types, in fish

dishes. The essential oil contained in Marvak (Salvia officinalis) is used in pharmaceutical practice to improve the smell and taste of liquid drug forms.

The majority of naturally occurring phenolic chemicals, known as flavonoids, are found in various plant sections both in their free form and as glycosides. They have been discovered to have a wide range of pharmacological effects, such as antibacterial, inhibition of mitochondrial adhesion, antiulcer, antiarthritic, inhibition of angiogenesis, anticancer, and protein kinase inhibition.

Two benzene rings and a propane ring divide the benzene rings in the flavonoids. Of all the phenolics, flavones and flavonols are the most pervasive. Flavonoids are particularly advantageous because they function as antioxidants and provide defense against heart disease, certain types of cancer, and the aging-related breakdown of cellular components. They can scavenge harmful free radicals such super oxide and hydroxyl radicals because to their polyphenolic composition. In experimental animal models, a range of dietary plant flavonoids prevent the growth of tumors. The biaflavonoids have pharmacological properties such as the capacity to block the inflammatory effects of hepatotoxins and function as a heart stimulant. They also have the power to suppress the release of histamines, the adhesion of blood platelets, and the action of lens aldose reductase.

Marvak (Salvia officinalis) is all familiar medicinal plant. Due to the rich chemical composition of Uzi, it is used as an antioxidant, immunomodulation, laxative agent in the pulp of Medicine. Marmalade effects on nicotine and muscarinic receptors of the brain improve the memory of the dilated Orsal. Its continued consumption of tsilish tsandli diabetes prevents Memory Disorders. Experimental tests show that the substance carnosol Marvak (Salvia officinalis) is able to provide a therapeutic agent in strained sclerosis and encephalomyelitis, while romarinic acid, which is abundant in Marvak (Salvia officinalis) leaves, has an anxiolytic effect. Essential oils of plants show an antidepressant effect. Nootropic properties are aniseed in Marvak (Salvia officinalis) extracts.

Medicinal sage leaf preparations are used as a twisting, disinfectant and anti-inflammatory drug in case of inflammation of the upper respiratory tract, for rinsing the mouth (stomatitis and gingivitis) and throat.

Medicinal preparations.

Leaves of Marvak (Salvia officinalis) is included in the composition of the drug teas and broncholetin, which are assemblies used for inflammation of the throat, chest, upper respiratory tract, gastric diseases and constipation. The medicinal preparation "Salvin" is obtained from the sage leaf. Its solutions of 0.1 and 0.25% in an isotonic solution of water or sodium chloride are used in the treatment of chronic inflammatory diseases in the oral cavity (gingivitis, stomatitis, periodontosis), purulent, tropical and bone leakage wounds. Technology for growing a sage plant.

It will be necessary to grow the Marvak (Salvia officinalis) plant on irrigated land, taking into account the soil distributed in the Republic of Uzbekistan and its climate, to grow more and more quality raw materials from them. Growing a sage plant on soils with high irrigated productivity, medium mechanical composition gives good results. Many years of scientific observations show that in relation to wild-growing medicinal plants, it has been found that in the composition of those grown by planting, biologically active substances are fully preserved.

The main importance in their composition is the preservation of a large number of components and the correct and timely harvesting of plant raw materials in the full use of these substances in medicine. To obtain a high and high-quality product from a medicinal sage plant, it will be necessary to conduct agro-technical activities at a high level. Among all the agro-technical

measures aimed at obtaining a high yield from medicinal plants, the work of the Earth is of fundamental importance. Because when the Earth is worked out, the physical, chemical and biological properties of the soil are improved, as well as the effectiveness of all agro-technical measures increases, the growth and development of the plant is accelerated.

The sage plant is considered a heat-loving, light-loving, drought-resistant crop, and it will be possible to obtain a high yield using the land in which it is planted for 4-5 years. The sage is prepared in the fall of the cultivated land, and in order to maintain soil fertility in one state before plowing, the plant is driven out of quality at a depth of 25-30 cm, giving 20 tons of local fertilizer per hectare and 70% of the annual norm for good development during the growing season. In early spring, the ground is leveled and cleared of weed residues. The seed is sown on equipment planting vegetables at a depth of 2-4 cm, with a row spacing of 60-70 cm at a soil temperature of 15-17°C in early March-April, and on average 8 kg of quality seeds are spent per hectare. Marvak (Salvia officinalis) can also be planted in late autumn.

The grass begins to germinate in the spring 12-14 days after sowing seeds. In the first days, the slowdown of the grass begins to be observed, and the land is cultivated and loosened so that it does not get stuck among weeds. When the sage is planted densely or weeds multiply, it is necessary to prevent the proliferation of arm fungi and pests on plants when spring is serrated. When two pairs of leaves are formed on the plant Bush, nests are laid every 15 cm apart, leaving 2-3 plants. It is recommended to carefully work between the rows without damaging the root system of plants.

Conclusion. Depending on the moisture content of the soil and the condition of the plant, watering should be stratified. During the season, it is recommended to water the Marvak (Salvia officinalis) up to 7-8 times in the first year. During periods of the sage leaf and the development of the root system, it requires a lot of water. Fertilizing the sage plant for good growth and development is one of the most important agro-technical factors.

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