

INEBRIN SUBSTANCE COMPOSED OF MINERAL ELEMENTS IN DETERMINABLE QUANTITY

Tojiboeva D.Sh

Kurbanova A.Dj

Komilov K.U

Chirchik State Pedagogical University

Islamov A.Kh

Institute of bioorganic chemistry named after Academician O.S. Sodikov of the Academy of Sciences of the Republic of Uzbekistan

Annotation: *In this article Information about the plant Lagochilus inebrians Bge and information about the determination of the amount of mineral elements in the Inebrin substance are presented.*

Key words: *lagochilus inebrians, water, extraction, substance, inebrin, tablet, lagochilin diterpenoid, spectrometry.*

INTRODUCTION

From the analysis of the literature, it can be seen that the plant of Lagochilus species has been known since ancient times for its healing properties, i.e., as a hemostatic agent, and it is among the most popular, effective hemostatic medicinal plants of the East. Decoctions and tinctures based on the Lagochilus plant have been used in practice to stop various bleedings. The pharmacology of Lagochilus plant species was studied at the pharmacology departments of the Kuban, Samarkand, Andijan medical universities. Among them, aqueous and alcoholic decoctions of Lagochilus inebrians have been found to have physiologically active properties such as sedative, hypotensive, sedative, anti-shock, anti-radiation and anti-allergic (anti-allergic) in addition to hemostatic properties. Academicians O.Sadikhov, S.Yu.Yunusov, N.Q.Abubakirov, I.P. Tsukervanik, Sh.I.Salikhov, B.T.Ibragimov, A.S. Turaev, doctors of science, professors Kha.A. Aslanov., A.I. Ismoilov., P.Yu. Yuldashev., Kha.A. Abduazimov., M.I. Ikramov., I.E. Akopov., Kh. A. Aslanov., U.N. Zaynutdinov., D.N. Dalimov., Z.I. Mavlankulova., S.I. Muhamedkhanova., V.B. Leontev., Islamov R., A. Saidkhodjaev., V .Malikov., I.K. Komilov., M.I. Sultonov., U.B. Zokirov., S.S. Sahobiddinov., Kh.Kh. Kholmatov., R.L. Khazanovich and others' services are incomparable [1 -2].

THEORETICAL PART

The *Lagochilus inebrians* plant grows in the Nurota district of the Navoi region of Uzbekistan and in the village of Navandak, Mirdosh Langar, Akmal Ikromov collective farm of the Khatirchi district, on the banks of the river and in the rocky areas. It is also found in Bukhara and Kashkadarya regions. It was grown in the village of Darmana in the former Frunze state farm of Shymkent province. It grows wild in the villages of Ko'shrabot, Gujumsoy, Bozorjoy, Jush, Samarkand region.

Lagochilus inebrians is a perennial herb growing to 20-60 cm tall. the stem is branched, ascending, woody at the base, four-sided, covered with hard glandular hairs. The leaf is simple, cut into three to five parts, oppositely located on the stem and branches. The flowers are pink, arranged in the form of semicircles on the stems and branches. The fruit is 4 nuts and blooms in June-September. Harvest time for *Lagochilus inebrians* is July-August. *Lagochilus inebrians* Bge plant and its flower and seeds are shown in Fig. 1.[3-4]



Figure 1. *Lagochilus inebrians* Bge plant and its flower.

The chemical composition of *Lagochilus inebrians* plant contains vitamin K1, 0.6-1.97% lagoxilin, 0.67% flavonoid glycosides, 44-77 mg% ascorbic acid, 6-7% organic acids, 5-10 mg% carotene, 9.66 - 12.42% tar, 2.58-2.78% additives and other substances, as well as calcium and iron salts. *Lagochilus inebrians* leaves contain lagoxilin, 0.03% essential oil, 11-14% flavoring agents, organic acids, 7-10 mg% carotene and 77-100 mg% vitamin C. [3-4].

From plants removable preparations : tincture, decoction , tincture , extract, extract-concentrate, tablet and hakazos enters _ Extracts as , a plant from raw materials biological active substances water , alcohol, ether or another separators using separate received and separator partly , sometimes completely evaporated to allocation it is said . Extracts liquid , thick and to the dry ones is divided . Of these the most a lot used is a dry

extract . Dry extracts are _ medicine plant from raw materials removable concentrated allocation and contains up to 5% humidity which keeps scattered powder is considered Dry extracts work release : deduction get , lie down of substances cleaning , steaming or drying , grinding , sifting , evaluation and packing like technological from stages consists of [5-7].

RESULTS OF THE DISCUSSION

Inebriine substance **the amount of** mineral elements was determined and studied using the Optima-2100DV (USA) device and Autodosator S-200 Perkin Elmer device based on the optical emission spectrometry method with "inductively coupled argon plasma" . Inebriine substance finely ground and a 0.1 g sample ±is weighed with an accuracy of 1 mg using an analytical balance. The sample is placed in autoclaves made of Teflon, and 2 ml of nitric acid solution and 1 ml of hydrogen peroxide solution are added to it . It is decomposed by heating at 40 °C and after cooling it is heated again to 25-40 °C. After digestion, sample solution Autoclave 5-10 ml of deionized LaboStar PRO UV 4, 1.5 l/min, with water from Evoqua (SG Wasser) apparatus, rinse 3 times with 50 ml volumetric flask and top up to the mark with deionized water until volume reaches 50 ml has been filled. The amount of mineral elements in the sample of inebriine substance was determined in the device based on the optical emission spectrometry method with "inductively coupled argon plasma". After receiving the data from the device, the final processing is performed by Win-Lab (offline) hardware . The device automatically calculates noise, the shape of the solution in the specified places of the studied elements. The standards use a multi-element standard solution. The analysis is repeated 5 times and the arithmetic mean is calculated. The RSD for each element should be between 0.01 and 1.0%. Used in the S-200 Perkin Elmer autodoser, the power of the generator is 1500 W , the peristaltic speed of the pump is 1.2 ml/min, the argon flow is 12-15 l/min, the plasma observation-axial point is 0.8 l/min. Inebriine substance

The results of determining the amount of mineral elements in the sample are presented in Table 4.8 [8-11].

Table 4.8

Inebriine substance **determination of the content** of mineral elements (mg/kg).

No	Ele nt	Naming	mineral elements (mcg)	No	Ele nt	Naming	mineral elements (mg)
1	Lee	Lithium	10.604	23	Ace	Arsenic	0.291
2	Be	Beryllium	0.067	24	Se	Selenium	0.062

3	IN	Bor	44.414	25	Rb	Rubidium	4.306
4	Na	Sodium	1413.808	26	Sr	Strontium	33.993
5	mg	Magnesium	4500.114	27	Zr	Zirconium	0.009
6	Al	Aluminum	7.836	28	Nb	Niobium	0.000
7	Si	Silicon	389.881	29	Mo	Molybdenu	0.114
8	P	Phosphorus	641.518	30	Ag	Silver	0.006
9	S	Oltfingugurt	893.491	31	Cd	Cadmium	0.003
10	K	Potassium	19336.865	32	In	Now	0.000
11	Ca	Calcium	6933.788	33	Sn	How	0.022
12	Ti	Titan	-12,660	34	Sb	Do not write	0.008
13	V	Vanadium	0.096	35	Cs	Cesium	0.065
14	Cr	Chromium	0.600	36	Ba	Barium	1.460
15	Mn	Manganese	15.867	37	Ta	Tantalum	0.000
16	Fe	Temir	156.107	38	W	wolfram	0.004
17	co	cobalt	0.135	39	Re	Rhenium	0.002
18	No	Nickel	1.195	40	Hg	Mercury	0.126
19	Cu	E.g	1.049	41	Tl	Thallium	0.003
20	Zn	Spirit	2,820	42	Pb	dry	0.371
21	Ga	Gallium	0.130	43	Bi	Bismuth	0.000
22	Ge	Germanium	0.001	44	U	Uranus	0.012

The data in the table shows that The amount of 44 elements in the amount of mineral elements in the inebrin substance was determined, V (44.414 mg/kg), Na (1413.808 mg/kg), Mg (4500.114 mg/kg), Al (7.836 mg/kg), Si (389.881 mg/kg), P(641.518 mg/kg), C (893.491 mg/kg), K (19336.865 mg/kg), Sa (6933.788 mg/kg), Cr (1.106 mg/kg), Mn (15.867 mg/kg), Fe (156.107 mg/kg), Cu (1.049 mg/kg), Zn (2.820 mg/kg), Sr (33,993 mg/kg), Ba (1,460 mg/kg), the amount of elements was found to be more than others [11].

CONCLUSION

amount of mineral elements in the inebrin substance was determined, including V (44,414 mg/kg), Na (1,413,808 mg/kg), Mg (4,500,114 mg/kg), Al (7,836 mg/kg), Si (389,881 mg/kg) . kg), P(641.518 mg/kg), C (893.491 mg/kg), K (19336.865 mg/kg), Sa (6933.788 mg/kg), Cr (1.106 mg/kg), Mn (15.867 mg/kg), Fe (156.107 mg/kg), Cu (1.049 mg/kg), Zn (2.820 mg/kg), Sr (33,993 mg/kg), Ba (1,460 mg/kg), the amount of elements was found to be more than others

LITERATURES:

1. Akopov I.E. Hemostatic plants. Tashkent "Medicine", 296,1981.
2. Akopov I.E. On the hemostatic efficacy of lagokhilin and lagokhilin acetate. In book : Problems of hemocoagulation in experimental and treatment-and-prophylactic work. Under. ed. Akopova I.E. Krasnodar, 12, 1976.
3. Farmakognoziya (H.Xolmatov, O'.Ahmedov) Abu Ali ibn Sino Toshkent 1997.
4. Kh.Kh.Kholmatov, O.A.Ahmedov, Pharmacognosy: darslik, Tashkent, Ibn Sino nomidagi NMB, 1995.
5. Islamov R. Dissertation... on the degree of the candidate of chemical sciences, Tashkent, 142 p., 1988
6. Pulatova T.P., Pharmacognostic study of representatives of the Lamiaceae family in order to obtain medicinal preparations. Abstract Diss c . Dr. Pharm. Sciences. -Moscow.1991.S.42.
7. Zaynutdinov U.N. Diterpenoid plant genus Lagochilus // Diss . Dr. _ chem. science T. 1993 . S. 253.
8. Islamov A.Kh. "Comparative chemical study of cultivated and wild Lagochilus inebrians plant and synthesis of water-soluble complexes of lagochilin derivatives " //Diss. Doctor of Philosophy in Chemistry (PhD). T. 2019. B.147.
9. Monograph. Zaynutdinov. U.N. Maulyanov. S.A. Islamov. A.H. // Chemistry, biology and physiological properties of plants belonging to the genus Lagochilus.// Tashkent University 2019 B.194
10. Monograph. Islamov A.Kh, Matchanov A.D, Kurbanova A.Dz, Komilov Q.U. // Glycyrrhizic acid, complex compounds with its salts and hemostatic activity of acetyl derivatives of Lagoxilin // "Lesson Press" LLC publishing house, Tashkent-2022., 108 p.
11. Islamov A.Kh. " Obtaining hemostatic products based on the plant Lagochilus inebrians and using them in folk medicine" //Diss. 02.00.09 – Chemistry of goods and 14.00.41 – Doctor of Chemical Sciences (DSc) in the specialty of folk medicine. T. February 23, 2023. B.195.