



MEDICINE TOURISM AND THEIR BENEFICIAL PROPERTIES IN THE MOUNTAIN CLUSTERS OF CHARVAK FREE TOURIST ZONE

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Abstract

Tourism opportunities develop based on the natural geographical location of each region. In particular, the development of medicinal tourism today is shaped by the beneficial properties of medicinal plants. This article describes in detail the development of medicinal tourism in the mountain clusters of the Charvak free tourist zone, as well as the healing properties of some medicinal plants that have been widespread in the nature of the zone since ancient times in the lower and upper adir regions, mountains and pastures, river and stream slopes, and on sandy and rocky terrain.

Keywords: Medicinal plants, environment, climate, humidity, flora, tourist zone.

Introduction

The use of herbs gifted by nature to treat various diseases in folk medicine has been known to us since ancient times. The use of the plant world by humans in healing has been passed down from generation to generation for many centuries, perfected, and now scientifically substantiated in practice.

In scientific medicine, medicinal plants are widely used in the treatment of various diseases. To date, many wild medicinal plants have been cultivated, planted and cultivated in separate fields and plantations.

Great Eastern scientists and medical experts, such as Abu Bakr al-Razi and Abu Ali ibn Sino, successfully treated patients with medicinal plants in their time. Manuscripts describing the use of medicinal plants have been found in ancient Egypt, China, and Uzbekistan many years before our era. Such manuscripts are still widely used today.

Plants that have healing properties are called medicinal plants. Human life is inextricably linked to plants.

We all know that the plant world feeds people, clothes them, purifies the air, creates healthy environments, serves as agricultural and construction material, creates a beautiful landscape that pleases the eye, protects the soil from erosion, retains moisture, and moderates the



temperature. In addition, the unique medicinal plant world of each region has been widely used in medicine. For example, one of the regions richest in medicinal plants in our republic is the Charvak free tourist zone.

The Charvak Free Tourist Zone and the Western Tien Shan Mountains here are distinguished from other regions by their beautiful nature and unique medicinal plant world.

The mountainous and foothill areas of the Western Tien Shan are among the most picturesque corners of the Charvak Free Tourist Zone. These forests are part of the Burchmulla Forestry Enterprise and the Ugam-Chatkal National Nature Park. The basis of the national park is the Chatkal Biosphere Reserve. Almost half of the flora of the Charvak Free Tourist Zone grows in these areas. These are mainly medicinal plants. These forests are unique in their composition. Forests play an important role in improving the environmental climate and preserving the biosphere. They also play a unique role in improving health, enriching the atmosphere with oxygen, and releasing phytoncides.

In the natural forests of this area, you can find more than 40 fruit, decorative and other trees, including medicinal hawthorn, almond, apple, pear, walnut, apricot, mountain cherry. In addition to fruit plants, among the plants that grow in such conditions, there are also many medicinal herbs, such as deer grass, dastarbosh, bojmodaron, kirgygogum, ermon, yellow andis, rough field, burgan, holed field, kantepar, jambil, mavrak, mountain mint, Pskom mountain onion.

There are about 1,800 plant species (honey-rich cereals, bulbous plants) in the Charvak Free Tourist Zone, of which 82 species (Central Asian pear, Pskom mountain onion, tulips, Abolin astragalus, Bashkyzilsay yorangouli, Minkwitz's thisium) are included in the "Red Book" of Uzbekistan. [4].

The free tourism zone of Charvak decreases from the northeast to the southwest. As the zone is orographically both plain and mountainous, medicinal plants are widely distributed, with more than 200 medicinal plants and a number of cultivated plants in populated areas.

The number, quantity, and quality of biologically active substances in plants found in the zone are the most important factors in determining their healing properties, that is, their medicinal properties. [4,5].

Today, a number of works are being carried out to develop therapeutic tourism in the Charvak Free Tourist Zone using medicinal plants. Therefore, in order to develop therapeutic tourism in the Charvak Free Tourist Zone and attract tourists, 9 seasonal recreation areas have been organized, namely Chimyan-Charvak, Beldirsoy, Aksokota, Qaronkul, Ugam (Khumson), Chimboylik, Aktash, Pskom, and Umumrayon economic recreation zones. The medicinal plants distributed in each recreation zone are fundamentally different from each other in terms of their natural geographical location, flowering and fruiting periods, as well as the characteristics of the use of the plant in medicine for its intended purpose.

It is useful for every person living in our homeland to know the medicinal properties of the plants growing on our territory. In this article, we will discuss some medicinal plants found in



the mountain clusters of the Charvak Free Tourist Zone, their healing properties and distribution.

The area of the Chimyan-Charvak recreation zone is 31,734.0 hectares. This zone is divided into 3 parts: I-A Southern Coast - 11,301.8 hectares, I-B Northern Coast - 9,132.1 hectares, I-B Northeast Coast - 11,300.1 hectares. The zone borders on the Ugam Range from the northwest, the Pskom Range and Mount Koksuv from the northeast, the Qorankul Recreation Zone from the south, and the Ugam (Khumson) and Umumrayon Economic Recreation Zone from the southwest. The lowest point of the recreation zone is the Charvak Reservoir, which is 148 meters high. This recreation zone is fundamentally different from other recreation zones with its flora. Here you can find medicinal plants such as dastarbash, bojmodaron, and ermon..

Achillea filipendulina lam

Family: asteraceae

Flowering time: VI-IX

Fruiting time: VIII-IX

Use: medecinal

Habit: herbaceous

Habitat: river valleys, mountain slopes. From foothills to highlands



Perennial herb, 60-75 cm tall. Stems are hairy, hairy. Leaves are pinnately divided, segments are oblong, toothed. Inflorescence is compound, scutellum-shaped. Petals are 4-10 mm long. Flowers are yellow. Seeds are black, 2 mm long. It grows abundantly in juniper forests, woodlands, and meadows of mountain ranges.

Effects and uses: In folk medicine, the flowers of the dastarbosh were powdered or made into a decoction, used for stomach diseases, gastritis, enteritis, colitis, as a laxative and aphrodisiac, and also as an anti-inflammatory. Dastarbosh was also used to treat kidney diseases, gout, rheumatism, headaches, colds, and wounds [3].

Achillea millefolium

Family: asteraceae

Flowering time: VI-VII

Fruiting time: VII-IX

Use : medicinal

Habit: herbaceous

Habitat: river valleys, mountain slopes. From foothills to highlands



Perennial herb up to 60-70 cm tall. Leaves are three-lobed, lobes are lanceolate. A large-flowered sedge. The panicles are 3-5 mm long and 5-6 mm in diameter. The flowers on the edge of the panicle are white or light pink, and the center is yellow. The sedge grows mainly



on the slopes of the Ugam, Chimyan, Piskom, Chatkal mountains and Beldirsay, in meadows, among bushes, on roadsides, and along ditches.

Effect and application: In folk medicine, decoctions made from yarrow grass and flowers are used as a wound healing and antipyretic agent for tuberculosis and gastro-intestinal diseases. In the folk medicine of Central Asia, it is recommended to use the decoction made from the flowers of this herb in hepatitis, gout, rheumatism, tuberculosis, asthma, as an appetite suppressant, diuretic, and hemostatic agent.



Artemisia absinthium

Family: asteraceae

Flowering time: V

Fruiting time: IX

Use: medicinal

Habit: herbaceous

Habitat: river valleys, mountain slopes. From plains to the middle mountain belt.

Wormwood is a perennial herb, covered with silvery hairs, growing to 60-100 cm tall. The leaves are bi- or tri-pinnately divided, the lobes are oblong. The inflorescence is a raceme. The panicles are round, with 40-90 flowers, 2-4 mm wide. The flowers are tubular, yellow.

Effect and application: in folk medicine, a decoction of erman grass is drunk for indigestion, liver, stomach, spleen, gall bladder diseases, cystitis, malaria, as well as to stimulate appetite and restore sleep. It is also used as an anthelmintic and wound healing agent.

The Beldirsoy recreation area covers 15,677.8 hectares. The zone borders the Aksaqota recreation area to the south, the Qorankul recreation area to the northwest, the Umumrayon economic zone to the west, the southern coast of the Chimyan-Charvak recreation area to the north, and the Parkent district of the Tashkent region to the east. Beldirsoy is famous for its ski resort with the longest ski slope in the Chimyan-Charvak resort and recreation area, which begins at the peak of Mount Katta Chimyan (3,309 m). There is a large area in the middle reaches of the stream, which is the crossroads of many mountain routes for tourists. On the slopes of the stream, you can find many junipers, hawthorns, and aspen. Tourists visiting here can not only admire the juniper groves, but also breathe in the clean air rich in oxygen and improve their health. Especially, drinking the flowers and leaves of medicinal plants such as hawthorn growing here refreshes a person and prolongs his life.



Rosa fedtschenkoana regel

Family: rosaceae

Flowering time: VI-VIII

Fruiting time: VII-IX

Use: medicinal, ornamental

Habit: shrub

Habitat: mountain slopes. Middle and upper mountain belt

Thorny shrub. Up to 3-4 meters tall. Leaves are pinnate, with 5-9 leaflets. Petals are 1-3 cm long, oval-toothed. Thorns are light yellow, large and straight. Flowers are white or pink, 8-9 cm wide. Sepals are hairy, 22-25 mm long, with a widened tip, and do not fall off when fruiting. Fruits are dark red, 2-3 cm.

Effects and uses: The fruits of the berry contain a large amount of vitamin C (4-8%, sometimes up to 18%), vitamins P, K, B, carotene, as well as flavonoids, sugar, organic acids (malic acid up to 1.8-2%, citric acid about 2%), pectin and tannins, lycopene and riboxanthin, as well as salts of potassium, iron, manganese, phosphorus, calcium, and magnesium. The seeds of the fruit contain vitamin E.

Namatak fruits have been used in folk medicine since ancient times. Tincture prepared from its fruits is used to treat pulmonary tuberculosis, inflammation of the liver, gall bladder, intestines, kidneys, and bladder. Also, a decoction prepared on the basis of the fruit of namatak is consumed as a blood-stopping and antipyretic agent. Not only the flowers and fruits of Namatak are healing, but the decoction prepared on the basis of its leaves is useful for stomach pains.

The area of the Aksokota recreation zone is 11940.0 hectares. The zone is bordered by the Beldirsoy recreation zone from the north and northeast, the Parkent district of the Tashkent region from the south and southeast, and the Charvak free tourist zone from the west and southwest. Medicinal plants such as kirkbogum and afansak grow on the slopes of Ugam and Korzhantog, located in the recreation zone. These medicinal plants are recommended as natural medicines for patients undergoing treatment at the Aktash sanatorium and tourists visiting the area.

Equisetum arvense

Family: Equisetaceae

Flowering time: III-V

Fruiting time: III-V

Use: medicinal

Habit: herbaceous

Habitat: Along river and streams, wet places. From plains to the middle mountain belt.





It is a perennial herb with a height of 10-50 cm, the rhizome is long, and it grows in clumps. Stems are fragmented, porous. Spring stems (March-May) are brown, unbranched, with a spore spike at the end. The summer stems are fruitless, bright green, and the branches are ring-shaped. **Effects and uses:** It heals wounds and ulcers. A piece of the root cut in half is useful when applied to muscles or tied. If it is mixed with wine and drunk, it is useful for diarrhea and bloody diarrhea. If a person with diarrhea has a fever, it is mixed with water and drunk. A decoction of the root is used as a diuretic, a hemostatic (when coughing up blood, bleeding from the nose), and in the treatment of istiqah, pulmonary tuberculosis, kidney and heart diseases. It is recommended to dry the root, grind it, mix it with cow fat and apply it to wounds [2].

The area of the Karankul recreation zone is 6275.3 hectares. Karankul borders on the southern coast of the Chimyan-Charvak recreation zone from the north-east, the Beldirsay recreation zone from the south, and the Umumrayon economic zone from the west and north-west. More medicinal plants grow in the zone, such as chamomile.

The area of the Ugam (Khumson) recreation zone is 5788.4 hectares. The zone borders on the western shore of the Chimyan-Charvak recreation zone from the northeast, the Umumrayon economic zone and the Charvak reservoir from the southeast, the state border of the Republic of Kazakhstan from the west, and the Chimboylik recreation zone from the southwest. The Ugam (Khumson) recreation zone includes areas such as Khumson and Chinar. In the recreation zone, Samarkand immortelle and field tea can be found more often.

Helichrysum

Family: asteraceae

Flowering time: VI-VII

Fruiting time: VII-VIII

Use: medicinal

Habit: herbaceous

Habitat: mountain slopes. Lower and middle mountain belt.



A perennial herb 35-70 cm tall. Stems are numerous. The leaves are pencil-shaped, with white felt hair. Ball-headed, 8-10 mm in diameter. The closing leaves of the baskets are pale yellow. The flowers are golden in color. The pods of the seeds are yellow.

Effects and uses: A decoction or infusion made from the flowers of the marigold is used in folk medicine as a carminative, diuretic, and mild expectorant for hepatitis, cholecystitis, nephritis, gastritis, as well as for urolithiasis and gallstone disease.

The Chimboylik recreation area covers 5,083.1 hectares. The zone borders the Ugam Range to the north, the Umumrayon economic zone to the south, the Ugam (Khumson) recreation zone

to the east, and the Aktash recreation zone to the west. Medicinal plants such as sphagnum and rough field tea can be found in the zone.



Hypericum perforatum

Family: hypericaceae

Flowering time: V-VIII

Fruiting time: VI-VIII

Use: medecinal

Habit: herbaceous

Habitat: river valleys, mountain slopes.from foothills to middle mountain belt.

A perennial herb up to 60 cm tall. Leaves are elongated, 1-2 cm long, 2-10 mm wide. Lumpy with ball shield. The flowers are yellow. Petals are 10-20 mm, with dotted glands. Changchilari is shorter than a saffron. The fruit is a capsule, 5-10 mm long.

Effects and uses: In folk medicine, decoctions and infusions made from yellow tea are used as an anti-inflammatory, astringent, tonic, and antiseptic agent for kidney, heart, and gastrointestinal diseases, tuberculosis, hepatitis, hysteria, hypochondria, and oral cavity ulcers, as well as a medicine to stop bleeding.



Hypericum scabrum

Family: hypericaceae

Flowering time: V-VIII

Fruiting time: VI-VIII

Use: medecinal

Habit: herbaceous

Habitat: mountain slopes.from foothills to middle mountain belt.

Perennial herb. 20-60 cm tall. Stems reddish or brown, with scaly margins. Leaves oblong, 1-2 cm long, 2-5 mm wide. Flowers scaly, with a scaly base. Petals 5-10 mm long. Stamens longer than the petals. Fruit a capsule, 5-7 mm long.

Effects and uses: In folk medicine, decoctions and infusions made from wild tea are used as an anti-inflammatory medicine for kidney, heart, gastrointestinal diseases, tuberculosis, hepatitis, and oral cavity ulcers.

The Aktash recreation area is located in the southwestern part of the Charvak free tourist zone, with an area of 6809.8 hectares. The zone borders the Kibray district of the Tashkent region from the west and southwest, the Ugam ridge of the Republic of Kazakhstan from the north through the state border, the Chimboylik recreation area from the northeast, and the Umumrayon economic zone from the southeast. Medicinal plants include dastarbosh and kanteper.



The Pskom recreation area is located in the northern part of the Charvak free tourist zone, and its area is 3167.2 hectares. The Pskom River flows through the central part of the Pskom recreation area, washing the Ugam and Pskom valleys. The area is bordered by the Ugam ranges from the west, the Pskom ranges from the east, the Charvak reservoir and the western and northeastern shores of the Chimyan-Charvak recreation area from the south, and the northernmost point of the Charvak free tourist zone from the north. Here you can find medicinal plants such as afanasak.

Thermopsis alterniflora

Family: fabaceae

Flowering time: IV-VI

Fruiting time: VI-VII

Use: medicinal, poisonous, ornamental, weed

Habit: herbaceous

Habitat: river valleys, mountain slopes. Lower and middle mountain belt.

Growing conditions: River and stream oases, mountain slopes. The lower and middle part of the mountains. A perennial herb. Height up to 70 cm. The leaves are composed of three oval-shaped leaflets, 2.5-6 cm long and 0.5-2 cm wide. Ball-shaped shingle. Flowers are yellow, 2-3 cm long. The calyx is 10-15 mm long. The pod is elongated, 3-6 cm long, with a short beak.



Actions and uses: Asfonak preparations are used as an expectorant, and cytisine alkaloid is used as a stimulant of the respiratory center and an antihypertensive agent. The legendary plant increases the secretion of gastric juice. Therefore, it is not appropriate to give its medicinal preparations to patients with stomach and intestinal diseases [1,4,5].

The area of the general economic zone is 12,278.1 hectares. The zone is bordered by the Ugam (Khumson) and Chimboylik recreational zones from the northwest, the western shore of the Chimyan-Charvak recreational zone and the Charvak reservoir from the north, the southern shore of the Chimyan-Charvak recreational zone from the northeast, the Qorankul and Beldyrsoy recreational zones from the east, and the southern border of the Charvak free tourist zone from the south. Medicinal plants such as yellow and black andiz grow in the zone.



Inula macrophylla

Family: asteraceae

Flowering time: V-VI

Fruiting time: VI-VII

Use: medicinal

Habit: herbaceous

Habitat: mountain slopes. From foothills to middle mountain belt

Effect and use: In folk medicine, powder, tincture and decoction are used as an expectorant, diuretic, antipyretic, anthelmintic, as well as in tuberculosis and upper respiratory tract diseases.

A decoction of the root of the yellow andis plant is used to treat itching, eczema, wounds, and the leaf is applied to wounds as a wound healer. The essential oil of yellow andise has an antiseptic, anti-inflammatory and anti-worm effect [2].



Inula helenium

Family: asteraceae

Flowering time: VI-VII

Fruiting time: VII-VIII

Use: medecinal

Habit: herbaceous

Habitat: mountain slopes. from foothills to middle mountain belt



A decoction of the root of the yellow andis plant is used to treat itching, eczema, wounds, and the leaf is applied to wounds as a wound healer. The essential oil of yellow andise has an antiseptic, anti-inflammatory and anti-worm effect.

Effects and uses: In folk medicine, a decoction of the root of the black star is used to treat itching, eczema, and wounds, and the leaves are applied to wounds as a wound healer. The essential oil contained in the black-andeza plant has an antiseptic, anti-inflammatory and anti-worm effect.

In order to treat and prevent diseases, medicinal plants in the Chimyan-Charvak zone are used to prepare medicines or to obtain medicinal preparations and pure medicinal substances. For this purpose, parts of these plants that are rich in biologically active substances with medicinal properties are used, namely the underground organs of some plants (roots, rhizomes, tubers or bulbs), and the above-ground organs of others (leaves, flowers, fruits, seeds, bark). [1].

Since the above-mentioned medicinal plants have a more effective local effect when applied to the patient, they are absolutely harmless to humans. Similarly, the demand and need for medicinal plants and medicinal preparations, phytopreparations obtained from them, is increasing not only in the Charvak Free Tourist Zone, but also throughout the world. In short, it is difficult to list the many properties of plants and come to an end. Another wonderful feature



of them is that they exhibit healing properties. Therefore, we need to preserve and protect our invaluable wealth of plants, not to allow them to disappear, and to multiply them and use them for beneficial purposes.

Summary section. In conclusion, it can be said that when using medicinal plants and their parts, it is necessary to follow the rules for collecting and preparing them so as not to affect the ecological balance of plant groups. When solving the issues of creating gardens and parks in the Tashkent region, it is necessary to take into account its natural and geographical conditions. Because the conditions of each region are different. This requires knowledge of the types of plants to be planted. In order to correctly select plant seedlings, it is very important to know the scenic qualities of plants, as well as their biological characteristics, and to take into account the requirements for external environmental conditions. Trees and shrubs absorb noise. This is especially important in urban conditions. Parks, gardens, and flower beds give people aesthetic pleasure, calm the nervous system. They serve as a favorite place for people to relax. Landscaping around ditches, canals and other water bodies protects their banks from erosion. It should be noted that medicines obtained from natural resources are distinguished by their advantages and simplicity compared to those obtained chemically or artificially. The reason is that, thanks to the grace of beautiful nature, medicines obtained from the plant world, unlike those obtained by chemical methods, are not alien to the human body and have a harmless effect.

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