AJPMHS GLOBAL RESEARCH NETWORK

AMERICAN Journal of Pediatric Medicine and Health Sciences
Volume 01, Issue 10, 2023 ISSN (E): 2993-2149

PROPERTIES OF HYPOTENSIVE PLANTS GROWING IN UZBEKISTAN.

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Elf angustifolia (Olive, Oleaster, laeagnus angustifolia L.) Pharmacological properties: Preparations from Russian Olive are less toxic, have cholinolytic action, and also have a positive effect on the respiratory and cardiac systems, reducing blood pressure. It is used in the treatment of gastrointestinal, stomach, pancreas, kidney, and heart diseases. The berries have a calming effect, enhance the effect of sedatives, suppress target reactions, prevent the development of anger and aggression. Shatine, colloid concentrate, and tannins are obtained from the fruits. Shatine is used as a binding agent for enterocolitis and other digestive system disorders. When taken internally, the functions of the digestive system and the overall condition improve; mouth rinses for inflammatory diseases of the oral cavity. A tincture of the fruits is used for the same purpose in traditional medicine.

Application: Fresh leaves of the plant are used for gout and radiculitis; they are applied to purulent and long non-healing wounds to eliminate inflammation and promote rapid healing, changing the bandage daily. Finely chopped fruits of Olive and leaves of plantain are good remedies for hemorrhoids. A decoction of the bark is useful for stopping bleeding. Fresh juice is effective for malaria and hypertension. A decoction of Russian Olive fruits: 30 g of fruits are poured with 1 glass of boiling water, boiled for 30 minutes in a closed glazed dish on a water bath. Then the decoction is strained in warmth through several layers of gauze, squeezed, and brought to the original volume. It is taken 2 tablespoons warm 3-4 times a day before meals. The decoction can be stored in the refrigerator for up to 2 days. The decoction is effective for respiratory diseases, colds and high temperature, inflammatory diseases of the colon and stomach, enterocolitis, diarrhea, intestinal catarrh, stomach diseases; it is beneficial for rinsing. Infusion of flowers: 6 g of flowers and leaves are poured with 1 glass of boiling water, left on a water bath for 15 minutes, filtered, squeezed, and brought to the original volume. One-third of a glass is drunk 3 times a day before meals. Russian Olive infusion is used for hypertension, upper respiratory tract diseases, temperature reduction, strengthening the heart muscle, edema, goiter, colitis, and as an anthelmintic. It is consumed as food. The fruits are added to soups, bread, pancakes, and other dishes both freshly sliced and chopped. Together with various fruits, they are used to make compotes. Wine is prepared with a unique bitter aroma. It is used for decorative

and other purposes. It easily adapts to bush formation, transplanting, air pollution; its silver leaves, fragrant flowers, bright bark serve as a very valuable and unique plant for parks and gardens. It has a very decorative appearance against a dark green background. It can be used as a living wall, but it needs to be regularly hilled, otherwise, it will quickly turn into a tree. Pruning is done in early and late summer. It is used as a crop to strengthen the banks of dams, rivers, and canals, for field fencing. It is an early honey plant, mainly producing nectar. Honey yield up to 200 kg/ha. Honey is yellow-brown, has a unique taste and aroma. The bark and leaves are used for leather dyeing and cooking. The wood is characterized by high viscosity, density, good water resistance, and is used for the production of musical instruments and furniture. The resin is used to make paints, glues, and varnishes. It is used as an emulsifier and binding agent in tablet production.

Common harmala - (Peganum harmala L.). Pharmacological Characteristics: The alkaloids discovered in Frankincense elicit a calming influence on both smooth and striated muscles, encompassing the cardiac muscles. Harmine, also recognized as Garmin, induces psychosomatic responses, fostering feelings of euphoria, visual hallucinations, autometamorphopsia, and optical-vestibular phenomena (sensations of body relaxation and vibration; agitation of surrounding objects). As a constituent of the plant, Harmine stimulates the motor centers of the cerebral cortex (similar to camphor) and the central nervous system, leading to a reduction in blood pressure, heightened respiration, muscle relaxation in the intestines, uterus, and heart, along with the dilation of peripheral blood vessels. However, in substantial doses, it has the potential to precipitate seizures. Peganine alkaloid (peganine hydrochloride) functions as an anticholinesterase agent, prompting stimulation in the smooth muscles of the uterus and intestines, augmentation of bile secretion, induction of bronchospasm, manifestation of a negative inotropic effect on the heart, reduction of blood volume in the heart vessels, and its application as a laxative in addressing constipation and intestinal atony.

In the context of medical applications, Frankincense seeds are less frequently utilized, with a greater preference for the herb. Deoxypeganine hydrochloride possesses anticholinesterase properties and is employed in treating various forms of myopathy and myasthenia gravis, as well as addressing chronic constipation and intestinal atony stemming from different causes. Harmine, found in Frankincense seeds, is harnessed for managing complications linked to epidemic encephalitis, tremor paralysis, and Parkinson's disease.

Within traditional or folk medicine, tinctures and decoctions derived from the Bergenia plant serve multifaceted roles as central nervous system stimulants, sedatives, analgesics, anti-inflammatory agents, stimulants, anthelmintics, antiseptics, diaphoretics, and diuretics.

Walnut (Juglans regia L. Walnut). Healing properties of walnuts: Walnut preparations possess bactericidal, anti-inflammatory, anti-sclerotic, anthelmintic, general strengthening, astringent, anti-edematous, mild laxative (root bark), moderately reducing sugar levels, blood-stopping, and wound-healing properties. The leaves have wound-healing, antimicrobial, and anti-inflammatory properties. Walnuts are rich in magnesium, which has vasodilatory and diuretic effects, as well as potassium, which helps eliminate sodium from the body and enhances urination. All of these contribute to lowering blood pressure. Walnuts are consumed raw, ground, or roasted. They are used to make jams or mixed with honey. Crushed kernels with honey are highly beneficial for individuals suffering from tuberculosis, cancer, and general weakness. Walnuts serve as an excellent remedy for hyperacidic gastritis or peptic ulcers, intensifying gastric juice secretion. They are used as an anthelmintic for small worms. Crushed walnuts are applied for treating contusions and taken internally for stomach ulcer treatment. Infusions of

walnut leaves are consumed for vascular sclerosis of the head and heart, tuberculosis, rickets in children, improving metabolism, and reducing blood sugar levels. Externally, they are applied for wound irrigation during washes, baths, purulent eruptions, dermatomycoses, eczemas, as well as for gargling in various inflammatory conditions and bleeding gums. Jam made from walnut shells is used for inflammatory processes in the kidneys or chronic nephritis and pyelonephritis. Walnuts and walnut oil are dietary products for atherosclerosis, beneficial for liver diseases, and chronic colitis with constipation. In folk medicine, walnut oil is considered the best remedy for gangrene around the eyes, cankers, and perforations. The oil was used for urolithiasis, menstrual cycle disorders, application on skin affected by ringworm, and as an ointment for burns and chest cracks.

Folk Medicine Recipes:

1. Infusion of walnut leaves: Infuse 1 tablespoon of crushed dried leaves with 2 cups of boiling water, let it steep for 1 hour, allow it to cool for 2 hours. For diabetes, vascular sclerosis of the head and heart, and metabolic disorders, drink 2-3 times a day, 20 minutes before meals, to improve and reduce blood expectoration in tuberculosis. The same infusion can be used for gargling in various inflammatory conditions and bleeding gums.
2. Infusion of walnut leaves: Steep 50 g of walnut leaves in 1 liter of boiling water, let it infuse for 2 hours. For enterocolitis and ascariasis, drink this infusion throughout the day.
3. Walnut leaf infusion: Infuse 1 tablespoon of walnut leaves or green fruit peel with 1 cup of boiling water, steep for 1 hour, strain. Drink 1-3 cups 3 times a day before meals as a tonic for avitaminosis. Instead of leaves, you can use the bark of roots and branches, which have a mild laxative effect.
4. Infusion of walnut leaves for external use: Boil 0.5 kg of crushed dried or 2 kg of freshly collected walnut leaves (mixed with flowers or unripe fruits) in 1 bucket of boiling water (8-10 liters), boil for 30 minutes at 37-40 °C, dilute in a 1:1 ratio, and use in baths for skin diseases, children's diathesis, and inflammation of lymph nodes. Take up to 10-15 baths.
5. Decoction of ripe walnut seeds: Infuse 40 g of raw material with 0.5 liters of boiling water, heat for 1 hour over low heat. For diabetes, drink 15 ml 3 times a day before meals.
6. Walnut seed tincture: Place 15 crushed and unripe fruits in a container with a capacity of 0.5 liters, pour 70% alcohol and leave in the sun for 14 days. Take 20-30 ml after meals for gastritis, enterocolitis, diarrhea, diabetes, neoplasms, as well as a vitamin and general strengthening agent.
7. Decoction of walnut seed husks: Separate the inner husks from 20-25 walnuts, pour 100 ml of 70% alcohol, infuse for 7-10 days, and take 15-20 drops 3 times a day in 30-50 ml of boiled water for mastopathy and uterine fibroids. The treatment course is 2 months. It can be repeated after a break of 7-10 days.
8. Walnut seed tincture: Add 1 tablespoon of crushed dry seeds to 200 ml of 70% alcohol or strong vodka, infuse in a dark place for 14 days, shaking occasionally, strain, and squeeze. For tremors, nervous disorders, diarrhea, chronic colitis, diabetes, and hypertension, take 1 teaspoon 3 times a day for a treatment course of 15-30 days.

9. The juice extracted from young and fresh walnut leaves is applied externally for fungal skin diseases and purulent inflammation of the middle ear. The juice obtained from the peel of walnuts is used for gargling in case of angina.

10. Walnut resin is used as a powder for treating wounds. Fresh walnut leaves are applied to wounds and sprains. Boiled leaves are soaked in hot water. For the same purpose, you can prepare the following ointment: Pour 100 ml of vegetable oil over 15 g of crushed walnut leaves, boil in a water bath for 1 hour after 7-8 days, strain twice through gauze, and then boil again for 30 minutes. Then add 15 g of beeswax and mix until it cools.

Broadleaf Plantain (Plantago major L.). Medical Applications: The juice obtained from fresh leaves of broadleaf plantain is effective in chronic gastritis, peptic ulcers of the stomach and duodenum with normal and reduced acidity of gastric juice. The presence of phytoncides in the plant provides the antimicrobial action of the preparation. A water infusion and freshly squeezed juice from the plant's leaves quickly cleanse wounds and contribute to their healing. These preparations are used in the form of compresses and washes for bruises, deep cuts and wounds, chronic wounds, puncture wounds, purulent wounds, and acne. Moreover, well-washed fresh leaves are used as a compress for purulent wounds and furunculosis. The vitamin K in its composition increases blood clotting, preventing severe bleeding. The plant possesses anti-inflammatory properties, making it highly effective for various inflammations. Firstly, preparations based on broadleaf plantain allow the treatment of some skin diseases (dermatitis, psoriasis). Secondly, they improve and treat diseases of the oral cavity (stomatitis, gingivitis) and upper respiratory tract (tonsillitis, sinusitis), accelerating the healing process.

Broadleaf plantain is used in the treatment of certain diseases of the urinary and excretory systems, such as nephritis, enuresis, and others. The plant is applied in bronchitis and other respiratory diseases due to its expectorant action. Its ingredients are destructive to certain pathogenic microorganisms, such as staphylococci, Pseudomonas aeruginosa, and others. It can also be used in case of corneal damage to the eye. Thanks to the plant's beneficial properties, it is also considered beneficial in the treatment of diseases of the female reproductive organs. Broadleaf plantain can treat conditions such as adnexitis, myometritis, parametritis, and endometritis.

It can alleviate fatigue, weakness, as well as strong fatigue and the consequences of stress. This natural remedy can also be used in hypertension, as it contributes to the normalization of blood pressure. Broadleaf plantain is often used as a mild sedative. Some people apply the leaves to the temples and forehead when experiencing pain. This is truly helpful because the plant is an effective natural analgesic.

Rhubarb Maximovich (Rheum maximowiczii Losinsk. Rovoch). In traditional medicine, it is recommended to use the young leaves and stems of burdock, as well as the freshly squeezed juice or compote prepared from them, as a general tonic, anti-anemic, antipyretic, and hypotensive agent. It is also recommended for use in low-acid gastritis, hepatitis, cholangitis, gallbladder dyskinesia, tuberculosis, chronic constipation, anemia, hypertension, polyarthritis, and malaria. It improves appetite and overall well-being, reduces pain, lowers blood pressure, increases the number of red blood cells and hemoglobin in the blood, and normalizes stool.

Rhubarb Maximovich should be dried in the sun and stored in a dry place. A decoction of dried stems is prepared according to the following recipe: 2 tablespoons of dried dill stems (20-30 g) are poured with 1-1.5 cups (200-250 ml) of boiling water and boiled over low heat for 30

minutes. A fennel infusion is recommended for hypertension, nasal and internal bleeding, and anemia.

It is considered useful for patients with atrophic and hypoacidic gastritis due to the presence of organic acids and vitamins in rhubarb (primarily vitamin C). It increases the secretory function of the stomach, improves appetite, enhances the resistance of capillaries in the gastric mucosa. Rovoch also improves the detoxification function of the liver and is beneficial for patients with mild forms of hypertension.

The fiber and pectin in Rhubarb improve the digestive function of the stomach, so it is recommended for elderly people with constipation. In cases of malarial fever, drinking juice from the stems and bunches of fennel helps reduce temperature. By neutralizing toxins, it reduces the toxic effects in infectious colds. Due to its high potassium content, it is beneficial for patients with heart diseases, thanks to its diuretic effect. Both wild and cultivated rhubarb are widely grown as a vegetable crop. Before consumption, young leafy strips or stems are cleaned from the top, divided into separate pieces, and salted to taste.

Young and succulent branches have a slightly bitter-sour taste, while mature and juicy stems have a slightly sour-sweet taste. From young cleaned fennel branches, jam, compotes, salads, jellies, juices, vegetable soups, marmalade, candied fruits, and other products are prepared.

Caution: Rhubarb should be given on an empty stomach to patients suffering from hypoacidic gastritis or stomach and duodenal ulcers. These patients experience severe stomach pain 10-15 minutes after ingestion. Rhubarb stems contain a large amount of oxalic acid, which reacts with calcium salts in the body, forming insoluble salts—oxalates. The formation of oxalates in the intestines disrupts the process of absorbing calcium salts in the intestines. At the same time, after absorption into the blood, oxalic acid easily binds with calcium, thereby increasing the concentration of oxalates in the blood. This combination is very dangerous for patients with hypothyroidism, as well as for children and pregnant women, as a calcium deficiency can lead to muscle spasms, blood clotting disorders, and widespread bone fractures (with prolonged use).

An increase in the amount of oxalates in the blood leads to the formation of kidney stones. The intake of rhubarb root preparations is prohibited during pregnancy and acute inflammation of the intestines. Recipe: 2 tablespoons of dried fennel stems are infused in 1/2-1 cup of boiling water for 30 minutes. It is taken for hypertension, nasal and internal bleeding, and anemia.

Xylosalsola Richteri (Akhani & Roalson). Preparations from this plant possess hypotensive, sedative, vasodilatory, and analgesic properties. Salsolin and salsolidine are used to treat hypertension, headaches, and spasms of cerebral vessels. Salsolin has a calming effect. Salsolidine has a similar effect but is three times weaker than salsolin. Recently, in the treatment of hypertensive disease, substances salsolin and salsolidine, in a ratio of 1/5 with 70% alcohol, are used to treat heart pain caused by elevated blood pressure, headaches, dizziness, and nervousness.

Contraindications: Circulatory disorders, kidney and liver diseases. Thanks to the calming properties of Xylosalsola Richteri, it is used in folk recipes to treat many diseases. Recipe for decoction: Place 20 grams of raw material in 200 ml of water and boil for 5 minutes. Take 1 tablespoon three times a day. Tincture recipe: Mix 1 tablespoon of crushed fruits with 100 ml of vodka and let it infuse for 10 days. Take 60 drops three times a day. It should be carried out under the supervision of a doctor.

Ephedra equisetina Bunge.). Used for vasoconstriction and increasing blood pressure. Dilates bronchi and pupils, suppresses intestinal activity, and increases blood sugar levels. In comparison to adrenaline, it does not exert a strong effect, but the effect lasts for a long time. Additionally, it improves the central nervous system's function and enhances the excitability of the respiratory center. Ephedra equisetina is employed in the treatment of bronchial asthma, whooping cough, rhinitis, low blood pressure, chills, seasickness, poisonings, and in ophthalmology. It is part of the preparation theophedrine, used in bronchial asthma.

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