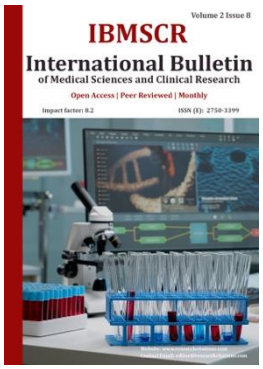

BENEFICIAL PROPERTIES AND CHEMICAL COMPOSITION OF THE PLANT CHINA-LAWSONIA INERMIS

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Annotation: The article provides information about the history of the origin of henna (Lawsonia inermis), useful properties, chemical composition. and methods of its application in medicine Xina (Lawsonia inermis)

Keywords: Plant, chemical composition, inermis, china-lawsonia, provides,

Introduction. Henna is a perennial plant belonging to the Lithum family. Henna is native to the island of Madagascar, the eastern coast of Africa and the northern regions of Australia. It is currently cultivated in India, Iran, Azerbaijan. It is widespread in many countries of Asia, North Africa, America, the Arabian Peninsula and Northern Australia. Since ancient times, the henna tree has been cultivated as a medicinal and dyeing plant in India, Egypt, Sudan, Pakistan, Kenya, Syria, Senegal, Morocco and other countries. Today, the henna industry is widely developed in Iran, where plantations occupy several thousand hectares. At the end of the twentieth century, the production of henna powder in Iran exceeded 2 thousand tons. Henna exports often constituted a significant part of the income of some countries in Africa and Asia. Its medicinal properties are well known in the medicine of African and Arab countries.

The stem is four-ribbed, hard, strongly branched, reaching a height of 2-5 meters in tropical regions. The leaves are opposite (without a band) on the stem, slightly pointed, ovate, with smooth edges, shiny flowers about 1 cm in diameter, forming a flower head. The fruit is a four-lobed capsule.[1]

Discussion. The growth and development of the plant in the tropics is associated with periods of humidity and drought. During the rainy season, henna gives new shoots en masse at a temperature of 35-45 ° C. At the age of two, thorns are formed on henna branches.

A cultivated tropical branched plant with leaves and white and pink fragrant buds. In modern cosmetology, natural henna dye is world famous, from which the leaves of the plant are produced.

The chemical composition of henna is very rich in biologically active substances, vitamins and trace elements. Henna leaves contain hennotanin, gallic and ellagic acids, 2-oxy-1,4-naphthoquinone-Lawson, which determine the coloring properties of the leaves, mucilage, triterpenoids, resins, phenolic glycosides, tannins, organic acids, vitamins K and C. [2]

The main coloring substances in the leaves are alkanin and Lawson, which give a yellow-red color. L. inermis leaf ethanol extract (AL-Fetaehab sample) had D-alose (17.61%), lawsone (12.87%), beta-D-glucopyranoside, methyl (12.74%), phytol (10.78%), 1-isobutoxy-1-methoxypropane (9.18%), n-hexadecanoic acid (6.33%), 9,12,15-octadecatrinoic acid (Z,Z,Z) (4.44%), squalene (4.06%) and vitamin E (3.60%) as the main phytochemical components, while L. inermis leaf ethanol extract (Ed-Damer sample) had beta-D-glucopyranoside, methyl (36.10%), phytol (10.85%), 9,12,15-octadecatrinoic acid, Z,Z acid (7.31%), squalene (7.20%), vitamin E (3.60%) and lawsone (6.82%) as the main phytochemical components showed that it is as. According to the chemical composition of Lawsonia inermis, it can be divided into (i) lawsone (naphtha quinone) chemotype (AL-Fetaehab sample) and (ii) ethyl alpha-d-glucopyranoside (phenol glucoside) chemotype (Ed-Damer sample).[4]

The use of henna is multifaceted. In European countries, including the CIS countries, a medicinal powder made from dried henna leaves is used. In medicine and in traditional medicine of Arab countries, henna is mainly used externally for the treatment of purulent and difficult-to-heal wounds, ulcers, burns. An infusion of the stem and bark of the plant is used to treat rheumatism, arthrosis and other joint diseases.

The chemical composition of the henna plant (Lawsonia inermis) is rich in various biologically active substances, mainly containing natural coloring pigments and compounds with antiseptic properties.

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The main chemical composition of the henna plant: Lawson (Lawson, 2-hydroxy-1,4-naphthoquinone) – 1–2% The main pigment that gives henna its reddish color.

Has natural antioxidant and antimicrobial properties. Tannins – 5–10% Natural astringents, useful for skin and hair. Strengthens blood vessels and has an anti-inflammatory effect. Flavonoids (quercetin, luteolin) – 3–5% have antioxidant properties, help keep the skin young and healthy.

Essential oils – 0.01–0.5% improve skin odor and have an antimicrobial effect. Helps soothe the scalp and stimulate hair growth.

Coumarins are natural anti-inflammatory and antiseptic substances that can have a protective effect on internal organs.

Glycosides support detoxification processes in the body.

Vitamins and minerals Vitamin C – strengthens immunity, iron, calcium, magnesium – are beneficial for hair and skin health.

Benefits of henna

For hair: used as a natural dye, provides color without harmful and chemical substances.

For skin: used against acne and inflammation due to its antiseptic effect.

Henna oil extract is used in combination with natural wax for back pain. Decoctions of henna leaves are effective in treating diathesis, scrofula in children. Henna is used to treat various dermatological diseases, eczema. The aroma of henna has a calming effect, henna lotions relieve headaches. Henna is a good aphrodisiac. Indians treat digestive disorders, high blood pressure, and jaundice with henna. Henna powder is used for some tumors and bleeding.[4]

Conclusion. Henna is a very ancient plant and is a widely sought-after cosmetic product of ancient civilizations. In recent years, the henna plant has attracted the attention of scientific researchers from many countries with its beneficial properties. The excellent heap to protective and antioxidant effects of henna aqueous extracts and leaf suspensions have been proven. A number of scientific studies conducted by Indian scientists have proven the antibacterial, antifungal, and sun-protective activity of henna extract. The discovery of the antiparasitic effect of henna, in particular on trypanosomes, is of scientific and practical interest.

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