

VIDARIKAND - AS A COSMETIC REVIEW**Divya A. Deshmukh*, Pranjali G. Jadhav, Pallavi S. Patil and S. G. Dhanmane**^{1,2,3}Student of Shri Sant Gajanan Maharaj College of Pharmacy.⁴Professor of Shri Sant Gajanan Maharaj College of Pharmacy.Article Received on
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Pharmacy.**ABSTRACT**

The Natural cosmetics has grown to be a great trend in recent years, the future developing tendency of the cosmetic industry should be more environmentally-friendly. The perennial herb *Pueraria tuberosa*, often known as Indian Kudzu (Vidarikand), is found in India and other Asian nations. It belongs to the family Fabaceae. Vidarikand consists of puerarin, an antioxidant that can be potentially employed in skincare products. It can also be utilized in moisturizing products to help with skin rejuvenation. The skin benefits of vidarikand, lack scientific evidence, thus, you must seek advice from a qualified dermatologist before applying anything on your skin.

KEYWORDS:- Anti-wrinkle creams, Anti-ageing creams and lotions, Dark circles controlling products, Blemish-prevention products,

Products that brighten the skin. Ayurveda, Anti- inflammatory, Cosmeceuticals, Skin benefitting, Vidarikand.

INTRODUCTION

The science of Ayurveda deals with holistic healing of mankind, bringing it closer to nature and re- establishing the natural body constitution through herbal remedies. There are many drugs in Ayurveda which improve overall strength of the body and also prevent or delay the process of ageing. Vidarikand is one such drug that is widely used by Ayurvedic practitioners for its various health benefits to mankind. It is however most popular for its rejuvenating actions on the body. The present invention relates to a composition having anti- oxidant, anti-inflammatory, and skin whitening effects and containing a kudzu aerial part extract as an active ingredient. It is one of the most nourishing medicinal plants gifted by Ayurveda to mankind.

Vidarikand is also known by another common name like - Indian kudju. There are many herbs in Ayurveda which promotes skin wellness and some which delay the ageing processes. Thus, Vidarikand is one such herb which is widely used in herbal medicine and hence can be introduced into cosmetic preparations as a beneficial ingredient for rejuvenation of Skin.

Table no. 1: Scientific classification.

Kingdom	Plantae
Subkingdom	Trachebionta
Superdivision	Spermatophyta
Division	Magnoliophyta
Subclass	Rosidae
Order	Fabales
Family	Fabaceae
Genus	Pueraria DC.
Species	Pueraria tuberosa

Physical features of the plant

i. Root system

It has a widely spread tuberous root system having a climbing, coiling and trailing vine. The tuberous roots are white, starchy and have a sweet taste.^[1] The young branches are grey pubescent.^[2]

ii. Leaves

The leaves resemble those of the plant *Butea monosperma*, commonly known as 'palash' in Hindi and hence named as 'Kandapalasha'.^[1] The Leaf is pinnately trifoliate with petiole 10-20 cm long. The leaflets are 12.5-20.0 cm long, 11.0-17.5 cm broad. The terminal leaflet broadly ovate, equal sided, acuminate. The lateral leaflet is ovate-oblong, very oblique, acuminate, silky pubescent below, glabrescent above, stipels small, stipules c. 5 mm long.^[2]

iii. Flowers

The flowers are bluish or purplish in colour.^[1] Floral Characteristics Flowers appear in April. It is blue or purplish blue in colour. It is leafless 15-27 cm long racemes. Calyx is 0.4-0.6 cm long densely silky. Corolla is bluish, larger and papilionaceous. Fruits are membranous. Pods are 5.0-7.5 cm long, flat and jointed. It contains 2- 3 seeds clothed with long, silky bristly brown hairs.

iv. Seeds

Seeds are densely pilose, hairs brown, and silky.^[2]

Distribution

It is common in Central India and ascending up to 1300 m and also found in Hills of Western Himalayan region.^[4]

Climate and Soil

The plant prefers sub-tropical climate, shade and warm humid conditions. It grows well in loam to sandy loam soil, rich in organic matter.^[4]

Cultivation

For the cultivation of *Pueraria tuberosa* textured loam soil is best for the cultivation high moisture contents and partial shady areas are suitable for its cultivation. Pre-soak the seed for 12 hours in warm water and sown in a warm greenhouse in early spring. Germination is taking place within 2 weeks. Prick out the seedlings into individual's pots when they are large enough to handle and plant them out. Cover the young plants with a frame until growing well⁵. The yield of tubers is reported to be about 5–7.5 tons per hectare.^[5]

Propagation material

It is generally propagated by seeds, but seed germination is low. Tubers and layering is also used for raising plants. Ground layering of stem is very successful for propagation.



Traditional uses

The herb Vidari has been explored for the following purposes

- A) Its tuberous root, which is brown in colour and slightly curved, is in clinical use for rejuvenation therapy.^[19]
- B) The powder of vidari root-tubers is in clinical use as anti-aging and also as tonic,

aphrodisiac, demulcent, lactagogue, purgative, cholagogue and also in scorpion sting. It is also useful in emaciation of children, debility and poor digestion.^[20,21]

- C) It has been reported in for skin care, as anti- fertility.^[22]
- D) One of its phytochemical, puerarin, has been associated with anti-diabetic property.^[23]
- E) It is also useful in emaciation of children, debility and poor digestion.^[19]
- F) The herb is found to possess anti-hypoglycemic activity.^[24]
- G) It enters into the composition of compound of a compound decoction, which is nutritive, diuretic and expectorant, and useful for fever and bronchitis.^[25]
- H) Vidarikand possesses good cardio-protective properties.^[1]
- I) Vidarikand has been reported for glowing skin to improve complexion.^[26]
- J) *P. tuberosa* has shown to be an excellent fibrinolytic agent. Fibrinogen is an independent risk factor for coronary artery disease and stroke and its reduction by Indian Kudzu has been reported.^[27]

Chemical composition of vidarikand

Phytochemical study of the tuber extract revealed the presence of alkaloids, coumarins, carbohydrates, glycosides, steroids, tannins, terpenoids, flavonoids, and anthocyanidins, among other phytoconstituents. Flavonoids such as puerarin (8.31%), daidzein (1.70%), and genistein (1.37%) were discovered in the tuber extract. Tuberosin, 4-methoxypuerarin, hydroxytuberosone, quercetin, biochanin A, biochanin B, irisolidon, tectoridin, robinin, and glycoside are some of the other flavonoid chemicals found in the tuber.

Potential uses of antioxidant activity of vidarikand

Vidarikand may have an ability to scavenge free radicals. In the liver and red blood cells, a hot water tuber extract of the plant vidarikand combined with milk have shown high antioxidant activity in an animal study. Higher phagocytic activity, increased immunoglobulin levels, and low glutathione and lipid peroxidation are all signs that vidarikand and milk may have antioxidant properties. These activities, however, are yet to be proved in humans. Therefore, kindly ensure to consult a doctor before using vidarikand for its benefits.

Table no. 2: Reported pharmacological Activities and Chemical constituents of tubers of *P. tuberosa*.

Activity	Constituents
Anti-oxidant	Puerarin
Antimicrobial activity	Eicosanoic acid
Wound-healing activity	Hydroxytuberosone
Anti-inflammatory activity	Biochanin A

Potential uses of vidarikand for skin

Vidarikand consists of puerarin, an antioxidant that can be potentially employed in skincare products like

- Anti-wrinkle creams
- Anti-ageing creams and lotions -Slows Ageing Process It limits the production of heat-producing chemicals that increase stress levels. It helps in retaining the bioactive elements in the skin and thus adding nourishment to the skin. Thus, appropriate intake of Vidarikand delays aging.
- Dark circles controlling products It can also be utilized in moisturizing products to help with skin rejuvenation like:
- Blemish-prevention products
- Products that brighten the skin⁴
- Effective for Skin It has the potency to heal the skin from the effect of any form of oxidative damage and make glowing skin. However scientific research has to prove further about Vidarikand in altering the abnormalities or allergies rising in the skin.
- Lipstick
- Ayurvedic & natural formula. Natural ingredients provide moisture & nourishment to your lips. It does not contain artificial pigments, made from natural pigments. Free from harmful chemicals, silicones, synthetic film-formers & parabens. 2% of Vidarikand powder is used in lipstick. For colour segment vidarikand flowers are used. The skin benefits of vidarikand, lack scientific evidence, thus, you must seek advice from a qualified dermatologist before applying anything on your skin.

Potential uses of vidarikand for hair

Vidarikand is a natural tonic that can be used in hair care products: The cooling characteristics of vidarikand might make it an excellent ingredient to be utilized in hair oils. It may also help to prevent dryness; thus, it can be used as an anti-dandruff ingredient in

hair washes. It could also be utilised in hair tonics and serums.⁴ The studies seem insufficient to validate these claims, therefore consult an ayurvedic physician before taking vidarikand for its effect on hair. It may also help to prevent dryness; thus, it can be used as an anti-dandruff ingredient in hair washes.

Adverse effects or toxicity of vidarikand

As such no severe toxicity or side effects have been found for vidarikand but the Herb in some cases is associated with nausea, headache, and fever. It might slow blood clotting.

Also said to interfere with cardiovascular treatments. Excessive consumption is reported to cause Kidney damage.

DISCUSSION AND CONCLUSION

The herb vidarikand as associated with ayurveda for body wellness is thus found to connect potentially on cosmetic grounds for their uses in skin care. The satisfactory amount of phytochemical agents makes it an ideal natural ingredient for use in cosmetic products. It is certainly beneficial to be used as an alternative to chemical ingredients. This herb can be researched more for its inner blend of bioactive and examine their nature and hence bring to forefront the magical constituents that may be extremely useful for human skin. Thus, Vidarikand is found to be suitable for use in cosmetic products.

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