

SOAP, PERFUMERY AND COSMETICS (ASIA)
WONDROUS PLANTS FROM ASIA

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INTRODUCTION

It was with great pleasure that I accepted the offer to write a paper for the first issue of this journal produced for the Asian market. The variety and diversity of plant species is so great that the hardest problem was to decide which ones to select.

The use of plants for medicinal purposes is well known throughout this part of the world, from Ayurvedic, Unani and Siddha medicine in India, to the Traditional Chinese Remedies in the Far East. Many plants have been so well respected, that they have slowly travelled from continent to continent, as traders and invading armies carried their respected herbs and medicines into new lands.

It is also very interesting to compare how one species of a particular genus that is found on one continent is used in very much the same way as a related species found on another. There is no way in which the medicinal use of a plant by a Shaman in South America could have been communicated to a Buddhist monk in the foothills of the Himalayas. It is all further evidence and proof that many plants are effective for their given purpose.

Only Gotu Kola will be discussed in this paper, because it seems to sum up all that is good about traditional medicine and it is a plant that has withstood all the critical modern techniques to verify its authenticity in the treatment of various human diseases. In that respect it is a truly amazing and fascinating plant. Space only permits the consideration of the topical benefits.

NOMENCLATURE

Centella asiatica (L.) Urban, (Syn. *Hydrocotyle asiatica* L. and *Centella coriacea* Nannfd.), *Centenella erecta*.

Family: Umbelliferae or Apiaceae

CAS 84776-24-9, 84696-21-9

NAMES

It is known as Gotu Kola, Hydrocotyle, Indian Water Navel-Wort, Indian Pennywort, Talepetrako, Ayurvedic name: Brahmi. Sanskrit Name : Mandukbrammi or Brahmi, which may be translated as "knowledge", whilst in Tamil, it is known as Mandukaparni or Mandookaparni. In China it is called: Fo Ti Tieng. It is also known as Hydrocotyle (French), Asiatischer Wassernabel (German), Centella (Italian), Hidrocotila (Spanish), Indische Waternavel (Dutch).

PARTS USED

Whole plant, root, stalks, fresh or dried leaves, and the dried aerial parts.

REGULATORY STATUS

Undetermined in the United States; official in the French pharmacopoeia as early as 1884; official in the Indian pharmacopoeia; also once official in the Dutch, Mexican, Spanish, Chinese and Venezuelan pharmacopoeias, Indian Pharmaceutical Codex.

OCCURRENCE

It is found throughout the tropical Near and Far East, particularly in India, Pakistan, Sri Lanka, Indonesia, Madagascar, China, Sri Lanka, western South Sea Islands, Australia, Madagascar, Malaysia, Southern Africa, Hawaii, characteristic of the Indian Ocean, is found spread throughout diverse tropical regions, The plant also grows in Eastern Europe.

DESCRIPTION

Weakly aromatic, prostrate, herbaceous, perennial, creeping plant; its whitish stems bear orbicular leaves (kidney-shaped), with 7 or 9 translucid veins on top of a long petiole, with crenated margin up to 2cm across by 1cm length, with long narrow petioles, reniform to 4 cm in diameter,

The plant grows near water or marshy locations, in damp grassy places, moist rocky outcrops to 700 m, rooting at the nodes, with simple umbels of white and pale pink or purplish small flowers that blossom from June to September. The fruits are rather small (a discoidal diachene very compressed) and are scattered with tiny warts.

ETHNOBOTANICAL USES

East and Central Africa

The Hosa and the Mfengu tribes have used it as a nourishing food and valuable medicine. The leaf is used for fevers, bowel complaints, and syphilitic and scrofulous conditions; in Central Africa it is widely used as a folk medicine, particularly for leprosy.

Philippines

In the Philippines, the leaves are either consumed raw in salads or as a tea for tonic and stimulant benefits to the body. A special salve made of the leaf sap plant has been applied topically to wounds, minor cuts and abrasions in the Philippines, with some success.

French West Indies

The leaves have been employed medicinally in the French West Indies, and Brazil to cure uterine cancer, leprosy and elephantiasis.

China

In Chinese folk medicine, a decoction of the whole above-ground herb is used for the treatment of colds, sore throat, fevers (antipyretic), sunstroke, tonsillitis, pleurisy, urinary tract infections, infectious hepatitis, liver diseases such as jaundice and cirrhosis, and dysentery; as detoxifying agent (e.g. an antidote for arsenic poisoning, poisoning by *Gelsemium elegans*, and toxic mushrooms); external poultice for snake bites, scabies, traumatic injuries, and herpes zoster. Centella extracts are also used for its bactericidal and diuretic properties.

India

An infusion of the leaves and stems has long been used in India for leprosy and other skin diseases such as lupus and skin disorders caused by syphilis, and as a diuretic (Ind. P.C.).

It was used for a quicker healing of small wounds, such as chaps and scratches. It is still used nowadays as a back-up treatment for surgical wounds, superficial burns and varicose ulcers.

In Uttar, Pradesh (N.India), fresh leaf juice used externally for elephantitis, inflammations, swelling; whole plant decoction used for skin disease (itch, fungal infections), chronic rheumatism, amenorrhoea, and as a "blood purifier".

Oral extracts, injectable extracts and ointments standardised to asiaticoside have been used successfully for the treatment of mal perforant lesions in leprosy patients. Taken as an oral medicine, Centella extract is very helpful in cases of atonic wounds and hypertrophic healing.

The juice of the whole leaves of Gotu Kola has been recommended for memory weakness, there was an impressive study which dealt its effect on the general mental ability of 30 mentally retarded children, when given over a period of 12 weeks. The findings showed that the youngsters taking gotu kola had increased their powers of concentration, general ability, behaviour and attention.

Certain Ayurvedic-based cosmetic preparations containing Gotu Kola leaf and root have appeared in various parts of India: lip balm for chapped lips, hand cream for rough, dry, 'dish pan' hands, an insect bite and stings ointment. A hair tonic for certain scalp problems, hair conditioners, and shampoos are all prepared from the leaf extract.

Insecticidal properties have been reported from leaf extracts.

SURGICAL USES

The ethnobotanical use of the plant gives an excellent starting point for full clinical investigation, since there is an established degree of confidence in the efficacy.

It has been used clinically for leg ulcers in postphlebotic patients (injectable extract); to accelerate the healing of superficial post-surgical wounds; to inhibit hypertrophic formation of scar tissue in the treatment of second- and third-degree burns; and general use in wounds, ulcer, and scleroderma.

It has also been shown to be beneficial in accelerating wound healing where new healthy connective tissue was produced which had increased tensile strength, by having a stimulating effect on the epidermis and promoting keratinisation. The plant acts both in a prophylactic and curative way on keloids or hypertrophic scars.

A leaf extract was evaluated with considerable success in clinical patients with soiled wounds and chronic atony, resistant to treatment.

The benefits have been shown to act on chronic lesions such as cutaneous ulcers (e.g. leprosy, syphilitic and indolent ulcers), surgical wounds, fistulas, and gynaecological wounds. It has also been used with success to improve the blood circulation in the lower limbs, where the stimulation of collagen synthesis in the vein wall resulted in an increase in vein tonicity and a reduction in the capacity of

the vein to distend - as in varicose veins and phlebitis. Other cases of veinous fragility, such as haemorrhoids may also respond well to treatment with the plant.

Several studies describe the use of hydrocotyle to treat wounds and various skin disorders have been documented.

Lupus erythematosus was helped by extracts of gotu kola, as was psoriasis

Components of gotu kola, asiaticoside and madecassoside are documented to be anti-inflammatory. The plant may be considered analgesic.

COSMETIC USES

Centella asiatic is particularly good for skin care formulations, and offers protective care, astringent tannins and soothing essential oils make it an excellent ingredient for toning and stimulating the skin, e.g. a topical treatment significantly prevented stretch marks appearing in expectant mothers.

The flavonoids may also be used to effect in hair care products, where stimulation of the peripheral circulation of the scalp will promote healthy scalp condition and prevent hair loss. It is also reported to aid capillary growth in psychomatic alopecia in the case that the piliferous papillae are not atrophied. Certain of the constituents be responsible for accelerated growth of hair and nails. Gotu Kola leaves have been used to correct *Pseudofolliculitis barbae* or razor bumps from occurring.

Toothpastes and mouth washes for atonic gums, may be another area worthy of research.

CONCLUSIONS

One single plant has been chosen from the many thousands that grow in the Asian and Pacific basin, and we have seen how starting from the confidence of ethnobotanical use, that the plant has been clinically studied and proven to be a truly effective topical treatment for the skin.

There are many tens of thousands of plants, known to the local peoples, highly regarded in folk lore for their medicinal value, virtually unknown in the West. The future can only be one of excited anticipation, as we discover that many of the 'old ways' are in fact the 'best ways' to solve many of our uncured diseases.

1585 Words