MEDICINAL VALUE OF INULA RACEMOSA HOOK. F. (PUSHKARMOOLA)

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ABSTRACT

Inula racemosa hook.f. is herb (plant) is used in traditional medicine in India for a long time, it is used in drugs by pharma industries for its antispasmodic, anti asthmatic and cardiac tonic properties. This is a member of Asteraceae family. It is commonly known as Puskaramula in Sanskrit and Pokharmula hindi. It is a tall, stout herb found in western Himalayas between 5000 to 14000 ft altitude. The great ayurved physician Charaka has indicated it “PUSKARMULAM HIKKA KASA SWAS PARSWASULA HARANAM” \(^1\) means this is the best drug of Hikka (Hiccups), Swas (Asthma), Parswa sula (both side chest pain). But now these days Iris Germanica, Inula royeliana, Hedichyum spicatum are using instead of Inula racemosa by the pharma industries and ayurveda physicians during their clinical practice.

Keywords: Inula racemosa, Pokharmula, Hikka, Parswasula, Iris germanica, Inula royelina, Hedichyum spicatum.

INTRODUCTION

The Indian system of traditional medicine is a part of a time honored and time tested culture that still intrigues people today. The traditional system of medicine means of Ayurveda, is a medical science practiced for a long time for living disease free life. It depends on medicinal plants for the management of various disease. Among these herbs Inula racemosa is a powerful herb for ayurveda medical science and as well as pharma industry also. The controversy about the identification of Puskarmula is as old as ayurveda science. It is not found in vedic literature. First it mentioned as a variety of kustha in holy granth AGNI PURAN, Acharya Charak introduced it as hikka ,swas , parswa shula hara\(^1,2\). The controversy started about this drug with the concept of substitutes that was introduced by Bhavmisra and Yog ratnakar.\(^3\) It is described by both that either kustha or erand mula may be used as the substitute of puskarmula. Iris germanica, Inula royeliana, Hedichyum spicatum adulteration are used instead of Puskarmula. Puskarmula is used for Swas and Hikka mainly in classical texts. Later on its role also identified in Hrid rog (angina) and Vataj Hrid rog (HHD).\(^3\) Roots are bitter ,acrid, thermogenic, cardiotoxic, expectorant, alexipharmic, anodyne, anti inflammatory, digestive, carminative, aphrodisiac, febrifuge and tonic \(^1\). One more interesting note that through HPLC finger printing Inula racemosa and Saussuria lappa C.B. Clarke both are having similar compounds\(^4\).

During review of literature it’s noticed that Puskarmula is not used for skin diseases whereas Saussurea lappa is externally used for various skin diseases.

SCIENTIFIC CLASSIFICATION-

- Kingdom – Plantae
- Phylum - Magnoliophyta
- Class - Magnoliopsida
- Order - Asterales
- Family - Asterace
- Tribe – Inulae
- Genus – Inula
- Species – Inula racemosa

VERNACULAR NAMES\(^4\)-

- English – Indian elecampane, sunspear
- Hindi - Pokharmul
- Sanskrit – Puskara mula, kasminra ,padma,sugandhikam
- Telugu – Pushkara mulamu
- Gujarati – Pokharmul
- Kannada – Puskarmul
- Cashmini – Poshkar
- Malayalam- Puskarkamulam
- Marathi – Puskarmul
- Tamil - Puskarmulam

SYNONYMS –

Kasmira , Padmapatra, Pouskara, Kustha, Bheda , Ciram , Jiham, Tirtha, Dhira, Padma, Puskarahava, Brahmatirtha, Mulam, Vatahva, Phala Patraka, Viram ,Swasari,
Sugandhikam, Mula, Pushkarjata. These synonyms are found in various Ayurveda nighantus.

**CLASSIFICATION CATEGORIZATION –**
Charak – Swashasha, Hikanigrahana
Susruta – Phala Vagra
Vagbhatta – Hidhma Nigranaha (A.H.)
Swas Samakha (A.S.)

**BOTANICAL DESCRIPTION –**
Plant is a tall, stout herb stem is 0.3 to 1.5 m, high, rough, grooved and all vegetative parts are scabrid tomentose. Basal leaves- 20 - 45 x12.5 – 20 cm. lower leaves are narrowed to a winged leaf stalk. Upper leaves are lanceolate and stem clasping. The abaxial laminal face is densely tomentose. Radical leaves are broad 20-45 x12.5 -20 cm. broad and elliptic lan shaped with long stalked. The cauline leaves are smaller, oblong and semi aplexicaule. Stem leaves oblong, half stem clasping usually deeply lobed at the base. Flowers – in heads/racemes, very large 3.8 to 5 cm in diameter. Outer bracts broad, tips triangular, bent back, inner bracts linear, sharp pointed. These are shady yellow daisies produced in mid to late summer. These borne on apical spike like cluster. Fruits -the fruits are slender, hairless, achenes 4 mm long. pappus 8 mm long and reddish in colour. Root – root stock branched, fresh roots are irregularly fusiform. Roots have a dull brownish skin with yellowish colour inside. The possesses a sweet and some what camphoraceous odour and have a bitter taste.

**DISTRIBUTION –**
Inula racemosa is distributed at temperate and alpine western Himalaya at an altitude of 5000 to 14000 ft. from Kashmir to Kumaon, Afghanistan to Nepal. It also found wild among strong alpine scrub vegetation in cold Laddakh (Leh) region of Kashmir. It is a critically endangered species due to the fragile nature of its habitat and its exploitation due to commercial medicinal properties. The species is facing the onslaught of indiscriminate over exploitation, habitat destruction and competition.

**AYURVDIC PROPERTIES –**
Ras – Tikta, Katu
Guna – Laghu, Tikshna
Virya – Ushna
Vipaka – Katu
Karma – Kapha Vatahara, Hrdya, Dipana.

**INDICATIONS –**
This is indicated in Hikka (Hiccup), Kasa (Cough), Swas (Asthma), Parswusa (both side chest pain), Hrid rog (Cardiac disease anemia & HD), Aadhman (Gastritis) and Pandu (Anaemia).

**USEFUL PART – Root**

**DOAGE – Powder 1-3 gm.**

**IMPORTANT PREPARATIONS –**
1. Puskarmulasava
2. Puskaradi Churn
3. Puskaradi kalk
4. Puskarakasaya
5. Brhat Yograj guggulu
6. Haritakayadi churn
7. Kankayan gutika
8. Kumaryasav
9. Dasmularista
10. Lodhrasava
11. Maharanayan Taila

**PHYTOCHEMICAL STUDIES –**

**CHEMICAL CONSTITUTES –**
Inula racemosa has Alantolactone, isoalantolactone, inunolide (Geranarolide), dihydrosoalanto lactone, B-sitosterol, D-mannitol, dihydroximunolide, neo-alantolactone, in- unolise, sesquiterpene lactone (imulin), alantodien etc.

**ETHNOMEDICINAL USES –**
Inula racemosa root is used as an expectorant and resolvent indurations. It is described as rasayan (rejuvenator and immunomodulator) by Ayurveda acharyas and used for this purpose by Ayurveda physicians. According to Bhav Prakash it is tikta (bitter pungent) in taste. When it is administered mitigates vatakaphaj jwara, sotha, aruchi, swas and parswasooal.

**CHEMICAL CONSTITUTES –**
It is specific medicine for cough, dyspnea, asthma, pleuricy, tuberculosis and chest pain special pre cardial pain, the roots is given orally in rheumatic pains and liver problems. The liniment is externally used for relieving pain. The root of Inula racemosa is an important ingredient of several polyherbal formulations those are for cardiac disease and inflammatory conditions of spleen and liver. Besides this a compound of Inula racemosa root and Comiphora mukul called Pushkar Guggulu is a popular anti obesity, hypopolipidemic is indicated in cardiac ailments.

**THERAPEUTIC USES –**
1. HRID ROG – powder of Inula racemosa should be taken with honey for heart disease.
2. PARSWA SULA – pushkar mula churna is given with honey.
3. KASA-SWAS - Powder of Inula racemosa root should be taken with dash mool kasaya.
4. DIURETIC – Its powder should be taken with lake warm water.
5. Powder of Inula racemosa is used as a tooth powder for tooth ache and various disease of teeth.
6. Powder of Inula racemosa is used externally for abscess and boils.

**CONCLUSION**
The plant Inula racemosa (Puskarmula) is found at temperate and alpine western Himalaya at 5000 to 14000 ft. Traditionally this plant is used science Agni puran to upto now days for the treatment of many disease. Now a days many experiments studies proves many medicinal values and use of Inula racemosa in number of diseases. It can be concluded that the drug Inula racemosa proved extensive medicinal value for the treatment of so many diseases.

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