



(REVIEW ARTICLE)



Single drug review: Yashtimadhu

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Abstract

There is a need to renovate Ayurveda into a dynamic, scientifically validated and evidence based which takes its heritage from rich knowledge base of oral practice and scriptures. A vast majority of prescription drugs used in the world contain compounds that are directly or indirectly, via semi-synthesis, derived from plants. The World Health Organization estimates that 80 % of the world's population relies on traditional healing modalities and herbs. There are many sources of such kind of healing modalities in Ayurveda. Numbers of single drug remedies are documented in many Ayurvedic texts. These are traditionally used by experienced and successful Ayurvedic physicians. In this study single herbal drug namely Yashtimadu, based on easily available medicinal plants are scientifically studied out. Botanical sources of the respective medicinal plant along with their indications and mode of uses are tabulated. Available scientific data regarding the particular therapeutic uses are analysed. The study also suggests that scientific screening of the medicinal plants should be done in order to justify the textual references.

Keywords: Ayurveda; Yashtimadhu; Single drug remedy; Traditional healing modalities; Herbs; Medicinal plants

1. Introduction

YASHTIMADHU-

1. यष्टि हिमा गुरुः स्वाद्धी चक्षुष्यां बलवर्णकृत ।

सुस्निग्धा शुकला केश्या स्वर्या पित्तानिलास्रजित

व्रण-शोथ-विष-छर्दितृष्णा-ग्लानि क्षयापदाः ।^[1]

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2. मधुकं चक्षुष्य वृष्य केश्य कण्ठय वर्ण्य बल्य विरजनिय रोपणियानाम् ।^[2]

C.Su. St. 25/39

3. मधुकं रक्तपित्तघ्नं व्रणशोथनरोपणम् ।

गुरुस्वादु हिमं वृष्यं चक्षुष्यं स्वरवर्णकृत ।^[3]

A.S.Su. St. 12/79

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4. मांसधातुर्दार्बल्यात् नेत्रे तिमीरादिरोगाः द्वितीय पटलाश्रिताः जायन्ते ।

तेषु नेत्रगतमांसपोषकम द्रव्यं उपयुक्तं भवन्ति ।

मधुकं नेत्राश्रितमांस पोषयति ।।^[4]

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1.1. Gana-

Jeevanneeya. Sandhaneeya. varnya. kanthya. kandughna. snehopaga. vamanopaga. Asthapanopaga. Chardinigrahi. Mutraveerajneeya. Shonitasthapaneeeya. Balya. Medhya. Haridrari. Brahatyadi. Kakolyadi. Sarivadi. Anjanadi. Ambasthadi. Nagrodhadi. Utpaladi.

- Kula- Shimbikula
- Family- Leguminoceae
- Name-
- Latin- Glycyrrhiza Glabra
- English- Sweet Wood Liquorice
- Sanskrit- Madhuyashti, Madhuka, Klitaka

1.2. Swarup:--

A tall perennial plant of 50 cm to 1 m. height or more erect. leaflet 4-7 pairs. oblong to elliptical. lanceolat. Acute or obtuse, shorter than the leaves, or a little longer flower 1 cm long pods ablong to linear 1-3cm long Perled Liquorice occurs in cylindrical pale-yellow pieces with a fibrous surface 1-2cm diameter.

Habitat- Subhimalayan tracks. Shrinagar. Jammu. Andaman Islands. Arabian Country.

Guna -

Rasa - Madhur. Tikta

Virya- Sheeta

Veepaka- Madhura

Prabhava- Rasayan, shukravardhaka, kshayanashaka.

Guna- Guru, Snigdha

Karma Prayoga

Pittaghana- Because of Madhur Rasa

Vataghana- Because of Guru, Snighdha, madhur guna and Slight kaphavardhaka

"It has Special action on Netra and kantha"

Dhatu - Being Rasayana it gives strength to all Dhatus especially Rasadhatu. Mansadhatu, Shukradhatu. Oja and Majja.

Mala - It is Mutravirajaneeya and Purish saraka.

1.3. Rogagnata

1 Raktaj Roga	5 Chardi
2 Shotha	6 Trushana
3 Vrana	7 Glani
4 Vishaghana	8 kshaya

1.4. External use

Shothahara	Abhynga
Vedanasthapaka	Aschyotana
Dahashamak	Pariseka
Seka	Lepa.

1.5. Action on Srotasa

- Majjavaha srotasa :- Being Balya it is used in various vatavyadhis. It is also used as medhya Rasayana.
- Mahasrotasa :- Anti - emetic because of madhur and snigdha guna. Emetic if it consumed in large quantity and also mild laxative and antacid.
- Raktavaha srotasa:- Shonita sthapaka. Rakta-shodhaka, Rakta- vardhaka and it is Raktogami.
- Pranavaha srotasa:- Being snigdha and madhur it separates vitiated kapha from its various places and there by relieves the patient from swarbheda. Kasa. Jeerna-jwara and urakshata.
- Mutravaha srotasa:- Being sthambhak it is used in Puyameha. Pittaja prameha.
- Prajana sansthana :- Being sthambhak it is used in spermaturia. It also has vrushya property.

Skin - Improves the fairness of skin.

Jwara - It is specifically used in jeerna jwara.

Eye - In various eye diseases especially in 'Abhishyanda'.

Action and use:- It is given in inflammatory. affections.

1.5.1. Macroscopic Characters

Colour - Unpeeled - yellowish brown or dark brown externally and yellowish internally while the peeled liquorice is pale yellow in colour.

Odour - Faint and characteristic.

Taste - Sweet

Size - 20 to 50 cm and 2 cm in diameter.

Shape - Cylindrical pieces which are straight may be peeled or unpeeled. Peeled liquorice is angular.

Fracture - It is fibrous in the bark and splintery in wood.

Extra feature - Unpeeled pieces shows the presence of small buds encircling scaly leaves and longitudinally the drug is wrinkled, while the peeled drug is fibrous without wrinkles.

1.5.2. Microscopic Character:

The important histological diagnostic characters of liquorice are given below:

- Unpeeled drugs shows the presence of polyhedral tubular brownish cork cells.
- Fibres are thick, lignified or partially lignified in the groups of 10- 15 in phloem and Xylem. Vessels are large and closely arranged with bordered pits. Starch and calcium Oxalate crystals are present in parenchyma. In case of stolons, the pith is present and is parenchymatous. The root is characterized by the presence of tetrach xylem and absence of pith.

1.5.3. Chemical Constituents:

The constituent of liquorice is a triterpenoid saponin known as glycyrrhizin which is a potassium and calcium salt of glycyrrhizinic acid. Glycyrrhizinic acid is a glycoside and on hydrolysis yields glycyrrhetic acid, which has a triterpenoid structure. The different varieties are found to contain varying amount of Glycyrrhizin (from 6 -14%) Spanish liquorice contains 5 to 10% Russian variety contains about 10%.

Other constituents of liquorice are-

- Glucose - 4%
- Sucrose - 2.5 - 6.5%
- Bitter principle
- Glycyramarin resins.
- Asparagin - 2 to 4%
- Fat

Another important chemical aspects of liquorice is the presence of flavonoids which cause antigastric effect and are useful in peptic ulcer treatment. The flavonoids, yellow in colour, are liquiritin and isoliquiritin. The Indian liquorice roots have shown the presence of 2 methylisoflavones and a coumarin viz - liquo coumarin.

Carbonoxolone is an oleandane derivative prepared from glycyrrhiza and possesses significant minerocorticoid activity. It is also used as an anti- ulcer drug. It changes the composition of mucous and increases mucosal barrier for the diffusion of acid. It is postulated that carbenoxolone inhibits the enzymes which inactivate prostaglandin's and suppresses the activation of pepsinogen. This drug has marked anti-inflammatory effects. It is employed in treatment of gastric and duodenal ulcers. It is also used along with antacids for treatment of gastric reflux and reflux oesophagitis. It has also application in the form of gel for mouthwash in treatment of oral ulcers.

Standards:

- Ash Value:-
- Acid insoluble ash:-

Peeled drug - Not more than 6% Unpeeled drug - Not more than 10% Peeled drug - Not more than 1% Unpeeled drug - Not more than 10%

Chemical Test:- On addition of 80% sulphuric acid, the thick section of drug or powder shows deep yellow colour.

1.5.4. Uses :

Traditionally liquorice has been used as an expectorant and demulcent. It is used in cough mixtures and as flavouring agent in formulations with nauseous drug like ammonium chloride, alkali iodides, quinine, cascara etc.

Due to flavonoid content with antigastric effects, it is used in peptic ulcer in the form of deglycyrrhized liquorice (DGL). This form has a reduced minerocorticoid activity and therefore used in treatment of peptic ulcer for healing purposes.

The drug is also used as antispasmodic. This is due to flavonoid glycoside viz isoliquirin, the aglycone part of this glycoside has anti- spasmodic effects.

Because of minerocorticoid activity (due to glycyrrhetic acid), it is employed in the place of corticosteroids for the treatment of rheumatoid arthritis inflammations and Addison's disease. But the heavy doses may cause sodium retention, consequently leading to hypertension, water retention, and severe electrolyte imbalance.

Liquorice is used most commonly as a flavouring agent for chewing tobacco and snuff tobacco. Ammoniated glycyrrhiza is used as a flavouring agent in beverages, confectionary & pharmaceuticals.

Residual matter remaining in the preparation of liquorice liquid extract is reported to have been used as a foam stabilizer in foam type of fire extinguisher. Liquorice is an ingredient of liquorice compound powder which is claimed to have a potentiating action of senna.

1.6. Other Preparations:

- Liquorice powder :- It is a powder of peeled drug.
- Liquorice compounds powder:- It contains senna leaf, liquorice, fennel, sublimed sulphur and sucrose and is used as laxative.
- Liquorice liquid extract
- Glycyrrhiza fluid extract:- It contains liquorice ammonia and alcohol.
- Liquorice lozenges:- It contains liquorice extract and anise oil along with a base.
- Ammoniated Glycyrrhizin:- It is the ammonium salt of glycyrrhizin and used as sweetening agent.

Following Scientifically proved qualities support the efficacy of Yashtimadhu-

- Anti-infective (Anti - inflammatory)
- Cortico steroid like property.
- Neurotic
- Strength promoting.
- Antacid
- Anti-allergic
- Analgesic
- Intellect promoting
- Interferon activating capacity
- Secretions inhibiting capacity
- General tonic
- Haemostatic property
- Easily penetrating capacity
- Samskara guna
- tridosha hara etc.

2. Conclusion

Single and cost-effective single drug remedies are the new way forward towards advancement in Medical Science. It is easily available and applicable for various health conditions and are often very effective if proper standard quality products are used. Similarly, detailed knowledge of the herbs facilitates in formulating effective and potent drug combinations. Drugs which are already proved and studied should be further tested as a single drug therapy. Traditional practitioner should concentrate more seriously on such kind of therapy as it can be a solution for saving numerous endangered medicinal plants at present state of affairs.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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Author's short Biography



Dr. Aakansha Pradip Gorakh is currently a Third Year PG student at Shalakyatantra Department of Vidarbha Ayurveda Mahavidyalaya, Amravati, Maharashtra, India. Study of Ophthalmology fascinates her, and her aim is to incorporate various easily available drugs in not only curing various eye related diseases but also in maintaining good eye health and prevention of “screen-time” related refractive errors in patients especially the young generation. At grass root level, availability of various and drugs is difficult as well as the affordability rate is low, hence she aims at providing easily available and effective treatment options to those patients.