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SYNONYMS AND THERAPEUTIC REVIEW OF MULETHI (*GLYCYRRHIZA GLABRA* LINN) COMMONLY KNOWN AS LICORICE : FROM KOSHA AND NIGHANTUS

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Abstract

The Nighantus, Ayurvedic form of Materia Medica could help significantly in this direction. Numerous Nighantus have been written from the very beginning of Ayurvedic period to solve the hidden meanings of cryptic names of medicinal plants. It is believed that at the end of each samhita a Nighantu was there. Indisputably the third millennium is witnessing the worldwide changes in healthcare. Ayurvedic system of healthcare has gained good popularity. Ayurveda is a profound and comprehensive system of health care that originated in India. This system endeavors to rationalize the all phenomena governing empirical experiences with natural products in medicine. Ayurvedic medicare system has attained popularity at global level to replace the synthetic chemicals as they have shown less adverse reactions. Plants have been one of the important sources of medicines since the beginning of human cultivation. There is a growing demand for plant based medicines, health products, pharmaceuticals, food supplements, cosmetics etc. Mulethi used as mild laxative, anti-arthritis, anti-inflammatory, anti-biotic, anti-viral, anti-ulcer, memory stimulant (being MAO inhibitor), anti-tussive, aphrodisiac, anti-mycotic, estrogenic, anti-oxidant, anti-caries agent, anti-neoplastic, anti-cholinergic, anti-diuretic, hypolipidemic agent. In this work a Nighantu of Sushruta named Sausruta Nighantu and another by Vagbhata the Astanga Nighantu are discussed. The present work aims to discuss Mulethi in various Nighantus as manuscripts or just as evidence - in a chronological order.

Keywords : Mulethi, Ayurveda, Nighantu, Glycyrrhiza glabra Linn.

Introduction

The term Nighantu is based on the term Nigama. The etymology of Nigama is, which brings out the extremely concealed or secret meaning of words in systemic way. This tradition was also adopted by the Ayurvedic scholars to clarify the technical words specially in the field of Dravyaguna. Earlier Nighantus were limited to explain the synonyms only. After some time the description of properties, action and indications are also included in the Nighantu along with synonyms. The Nighantu literature is one of the important aspects in the study of Ayurveda and specially in the subject of Dravyaguna Vijnana. The Nighantu literature is also as ancient as Ayurveda. Much importance has not been given to the study of

Nighantu. The ancient Nighantus were actually like Kosa, containing the synonyms of Dravya. Later on, the drugs were given the description of properties, actions and their uses. In true sense the Nighantu means collection of words, synonyms and the names of the medicinal substances. Ramavatar Sharma in his introduction to Kalpadru Kosa of Kesava uses the term Nighantu for the glossaries connected with Ayurveda. To understand precisely what is aimed at these glossaries are called as 'Ayurveda Nighantu'. The Nighantu may be defined as a glossary containing synonymous groups, the names of the drugs, plants, animals, minerals or anything that is administered either as food or medicine to the human body. Natural products are an important source of new structures leading

to drugs in all major disease areas. They represent a pool of privileged structures that are optimized by evolution to interact with proteins and other molecules¹. The starting materials for about one-half of the medicines we use today come from natural sources. The future of higher plants as sources of medicinal agents for use in investigation, prevention, and treatment of diseases is also very promising² Natural products have provided us some of the important life saving drugs used in the armamentarium of modern medicine. However, among the estimated 250,000-400,000 plant species, only 6% have been studied

for biological activity, and 15% have been investigated Phytochemically. This shows a need for planned activity guided phyto-pharmacological evaluation of herbal drugs. This article intends to provide an overview of the chemical constituents present in various parts of

Glycyrrhiza glabra and their pharmacological actions. *Glycyrrhiza glabra*, also known as licorice and sweet wood, is native to the Mediterranean and certain areas of Asia. Historically, the dried rhizome and root of this plant were employed medicinally by the Egyptian, Chinese, Greek, Indian, and Roman civilizations as an expectorant and carminative. Licorice or Liquorice (*Glycyrrhiza glabra*), is a perennial herb which possesses sweet taste³Liquorice has extensive pharmacological effects for human being. The most Common medical use

liquorice is for treating upper respiratory ailments including coughs, hoarseness, sore throat and bronchitis^{4,5}

The licorice shrub is a member of the pea family and grows in subtropical climates in rich soil to a height of four or five feet. It has oval leaflets, white

to purplish flower clusters, and flat pods. Below ground, the licorice plant has an extensive root system with a main taproot and numerous runners. The main taproot, which is harvested for medicinal use, is soft, fibrous, and has a bright yellow interior⁶. *Glycyrrhiza* is derived from the ancient Greek term *glykos*, meaning sweet, and *rhiza*, meaning root. Licorice extracts have been used for more than 60

years in Japan to treat chronic hepatitis, and also have therapeutic benefit against other viruses, including human immunodeficiency virus (HIV), cytomegalovirus (CMV), and Herpes simplex. Deglycyrrhinated licorice (DGL) preparations are useful in treating various types of ulcers, while

topical licorice preparations have been used to

sooth and heal skin eruptions, such as psoriasis and herpetic lesions. Mulethi is explained in almost all the

important Nighantus except Hridayadipaka Nighantu and Pushpa-ayurveda with a variety of synonyms and Guna-karmas.

Amarkosha (5th cent. A.D.)

This book is the compilation done by Amar Singh. In this book total subject was divided into 3 parts. First and second parts include 10 chapters each and third part comprises of 5 chapters. The total subject was narrated with synonyms. Madhuyashti has been mentioned in the Vanausadhi Varga and its synonyms are Madhuk, Klitaka, Yashtimadhuk, Madhuyashtika is used in masculine gender⁷.

Sausruta nighantu: (6th Cent. A.D.)

Based on Susruta samhita. In this Nighantu Madhuyashti has been described in Haridradi gana. Following synonyms are mentioned here i.e. Madhuka, Yashtimadhuka, Yashtik, Madhuyashtika, Kashthamadhuka, Vallimadhuka⁸.

Ashtanga nighantu: (8th Cent. A.D.)

In this Nighantu, Acharya Vahata has described maximum group of drugs on the basis of classification of Ashtanga Sangraha and Astanga Hridaya. In addition, some drugs are also mentioned in Viprakirna varga. In this Nighantu Madhuyashti has been described in Sarivadi gana. Following synonyms are mentioned here i.e. Yashti, Madhuka, Klitaka, Parushako, Mriduphala, Dhanvanachchhad⁹.

Dhanvantari nighantu: (10th - 13th Cent. A.D.)

In the beginning of Nighantu, author pays homage to lord Dhanawantari and again he mentions its name as Dravyavali. At the end of Dravyavali author desires to describe the drugs of Dravyavali with their synonyms and after that he has described their properties and actions along with synonyms. In this Nighantu Madhuyashti has been described in 'Guduchyadi Varga'. Following synonyms are mentioned here i.e., Yashti, Yashtimadhu, Madhusrava, Yashtik, Madhuka, Madhuyashtika.. Madhuyashti has Madhura, Shita virya and Pittahara, Shukravardhaka, Shoshaghana and Vishaghana properties¹⁰.

Sodhala nighantu: (12th Cent. A.D.)

This Nighantu was composed by Sodhala in two parts named as Namasangraha dealing with synonyms and Gunasangraha dealing with properties and actions. In 'Guduchyadi varga' of Sodhala nighantu synonyms of Madhuyashti ' ' i.e Madhuk, Yashtika Yashtimadhuka are mentioned and useful in the treatment of Raktapitta. It is Grahi, Vrisya, Chakshushya, Svarya and Vanya. It is Madhura in rasa and Shita Virya¹¹.

Hridayadipaka nighantu: (13th Cent. A.D.)

The author of this work is Bopadeva son of Keshava. The subject matter of this work is well divided into eight Vargas. It follows metric style of Paryaya ratnamala of Madhava. In this Nighantu Shirish has been mentioned in Kapha-vataghna varga, with its synonym 'Dandhadika'¹².

Abhidhanaratnamala (Sadrasa Nighantu) (13th Cent. A.D.)

In Abhidhanratnamala synonyms of Madhuyashti are described in Madhura dravya skandha. Following synonyms are mentioned here Yashtimaduka, Yashtavaha, Madhukam, Klitaka¹³.

Madhava-dravyaguna: (13th Cent. A.D.)

In Madhava dravyaguna Madhuyashti is described in Vividh-ushadi varga. Here Madhuyashti is used in the treatment of Raktapitta, Vranashodhan, Krimi and Kushthaghna¹⁴.

Madanpala nighantu: (14th Cent. A.D.)

Madhuyashti has been mentioned in "abhayadi varga". Madanapala has included following synonyms of Madhuyashti: Madhulika, madhuka, klitaka, yashtimadhu, yashtimadhuka, jalaja and madhu. Regarding its properties it has been said as Shital Dravya. It is indicated in Varnya, Pipasa, Vamana and Pittanashaka¹⁵.

Kaiyadev nighantu: (Pathyapathya Vibodhaka) (15th Cent. A.D.)

In this Nighantu 'Madhuyashti' is described in "Aushadhi Varga" with following synonyms i.e. Klitak, Madhuka, Madhuyashti, Madhusrava, Madhu. Another type of Madhuyashti is found in Jaliya pradesh named Madhuparni and Madhulika. Regarding its properties it has been said as Madhura, Sukravardhaka, Chakshushya, Balya, Tridosha, Varnya, Sotha, Kshaya Shamanarth.¹⁶

Bhavaprakasa nighantu:(16th Cent. A.D.)

This book is written by Bhavamishra who is an important landmark in the history of Indian Medicine. He stands at the junction of the medieval and modern periods which is the turning point for its future course and also because of the fact that he revived, the style of Samhitas and contributed a good deal to various aspects of Ayurveda by adding new ideas and drugs. Mulethi has been mentioned in 'Haritakyadi varga' and following synonyms are found in this Nighantu- Klitak, Yashtimadhu, Yashtimadhuka¹⁷.

Gunaratnamala: (16th Cent. A.D.)

In Gunaratnamala of Bhavamishra 'Madhuyashti' is described in "Haritkyadi Varga" its Guna karma along with characteristic features of Madhuyashti are described as him, Guru, Madhura Sukravardhaka, Chakshushya, Balya, Keshya, Svarya, Pitta shamaka.¹⁸

Rajanighantu: (Nighantu Raja, Abhidhana chudamani) (17th Cent. A.D.)

This book is written by Narhari Pandit, who has given first place to Dravyaguna in Astanga Ayurveda. This book is particularly based on the Dhanwantari nighantu. The subject matter has been divided into 23

chapters. Madhuyashti is included in “Pipalyadi varga”. Synonyms of Madhuyashti mentioned in Raja nighantu Yashtimadhu, Madhuvalli, Madhusrava, Madhuka, Madhuka, Yashti, Yashtayaha.¹⁹.

Adhunika kala

‘Madhuyashti’ is explained in text books of modern periods such as Dravya guna vigyan by Dr P.V Sharma, Priya nighantu, Saligrama nighantu, Ayurvedic materia medica, Wealth of India and other books written by recent Acharyas, which provide information about its habit, habitat, morphology, chemical composition etc

Nighantu Adarsa: (20th Cent. A.D.)

This book was published in Gujarat, its author, is Vaidya Bapalalji who is the authoritative person of 20th century for identification of Ayurvedic plants. In this Nighantu ‘Madhuyashti’ is described in “palashadi Varga” with following synonyms madhuka, yashtimadhu and klitaka its Guna karma along with characteristic features of Madhuyashti are described as him, Guru Madhura, Chakshushya, Balya, Keshya, Svarya, Shosha, Kshaya Tridosha Shamaka²⁰.

Priya Nighantu: (20th Cent. A.D.)

In priya nighantu of Acharya Priyavrata Sharma ‘Madhuyashti’ is described in “Shatpushpadi Varga” with following synonyms . It is used in Kasa, Svasa, Sirasula, Netraroga, Udararoga and Vrananashaka. It is two type Sthalaj and Jalaj.²¹.

Puspayurveda: (20th Cent. A.D.)

In Pushpa-Ayurveda there is no reference was found regarding Mulethi.

Discussion

The licorice shrub is a member of the pea family and grows in subtropical climates in rich soil to a height of four or five feet. It has oval leaflets, white to purplish flower clusters, and flat pods. Below ground, the licorice plant has an extensive root system with a main taproot and numerous runners. The main taproot, which is harvested for medicinal use, is soft, fibrous, and has a bright yellow interior. Glycyrrhiza is derived from the ancient Greek term glykos, meaning sweet, and rhiza, meaning root²². The plant is a tall perennial herb, upto 2 m high found cultivated in Europe, Persia, Afghanistan and to little extent in some parts of India²³. In India the plant is cultivated in Punjab and sub Himalayan tract²⁴. Antimycobacterial activity of Glycyrrhiza glabra was found at 500 µg/mL concentration. Bioactivity guided phytochemical analysis identified glabridin as potentially active against both *Mycobacterium tuberculosis* H37Ra and H37Rv strains at 29.16 µg/mL concentration²⁵. In rural India, 70 percent of the population is dependent on the traditional system of medicine, it is essential to intensify the study of medicinal plants. History of drug can be studied under Vaidic kala, Upanishad kala, Purana kala, Samhita kala, Nighantu kala and Adhunika kala. A. lebeck is a popular tree, which is used by traditional practitioner to cure various ailments. Present study revealed that by the help of literature i.e., Kosha and Nighantus we will reach to medicine very easily and take the benefit by the traditional medicines. The Nighantus generally were coined using a therapeutic text. Authors used the

prevailing and popular texts of their time and region as basis to write Nighantus. This explains the emergence of more than one Nighantu during one period. Further, two different Nighantus are seen having groups with same name but have kept different substances under them. This has happened due to the different rationale used in grouping of the substances. This offers a tremendous scope for research in order to explore the therapeutic application of a substance in different regions and era, in the same manner Mulethi was also a popular drug at that time. It has tremendous effect on different diseases viz. Kamala (Jaundice) etc. Sukral (Inhance Sperm count) , Chaksu-vikar (Eye disorder), balya strength promoter), , Varnya (Discolouration) Sotha (Odema), Kshya (Malnutrition) .

Conclusion

Glycyrrhiza glabra is a plant with a rich Ethnobotanical history. The present review on Mulethi of different Nighantus can be useful to know about the different formulations of Mulethi in which different parts of this plant is used. By this way we can use Mulethi in the treatment of different diseases. Most of the Nighantus have mentioned Mulethi has good Shukravardhaka, Shoshaghana, Vishaghana, Vrisya, Chakshushya properties. In this regard, further studies need to be carried out to explore Mulethi for its potential in preventing and treating diseases.

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