

SHORT REVIEW OF AYURVEDA DRUG MAMAJJAKA (*ENICOSTEMA LITTORALE*)**^{1*}Rajendra Singh, ²Raut Disha Anil and ³Meena Jaikishan**

^{1,2}Final Year PG Scholar, Dept. of Ayurved Samhita and Siddhanta, National Institute of Ayurveda, (Deemed to be university), Amer Road, Jaipur.

³Assistant Professor, Dept. of Ayurved Samhita and Siddhanta, Shri Shirdi Sai Baba Ayurved College and Hospital, Jaipur, Rajasthan, India.

Article Received on
07 May 2023,

Revised on 28 May 2023,
Accepted on 18 June 2023

DOI: 10.20959/wjpr202311-28743

Corresponding Author*Dr. Rajendra Singh**

Final Year PG Scholar,
Dept. of Ayurved Samhita
and Siddhanta, National
Institute of Ayurveda,
(Deemed to be university),
Amer Road, Jaipur.

ABSTRACT

Medicinal plants make the base of the traditional medicine which are used by the world's 60% population. Therapeutic potential with high safety profile. *Mamajjaka* (*Enicostemma littorale blume*) is a relatively uncommon ayurvedic medicine used for the treatment of Diabetes mellitus, obesity malaria, skin diseases, leprosy, diabetes by traditional medical professionals. The current review focuses on the *Mamajjaka* drug used mainly in the treatment of Diabetes mellitus. This drug holds capacity to act on *tridosha* mainly *Kaphapitta*. *Dushya* is *meda*, *mamsa*, *rasa*, *rakta* and *shukra*. *Medovaha*, *Mamsavaha*, *Mutravaha*, *Raktavaha*, *Rasavaha Srotasa* are involved. *Jatharagni* and *dhatwagni* *dipana* and *amapachana*. *Mamajjaka* is considered as one of the best drug for curing disease diabetes. It possesses the digestive,

carminative, stomachic, laxative, anthelmintic, anti-inflammatory, liver tonic, astringent, depurative, revulsive and antiperiodic properties.

KEYWORDS: *Mamajjaka*, Diabetes mellitus, Ayurveda, Traditional medicine.

INTRODUCTION

Medicinal plants make the base of the traditional medicine which are used by the world's 60% population. Therapeutic potential with high safety profile.^[1] Ayurveda distinctly described various potent medicinal herbs and formulations possessing the cure. *Mamajjaka* (*Enicostemma littorale blume*) is a relatively uncommon ayurvedic medicine used for the treatment of Diabetes mellitus, obesity malaria, skin diseases, leprosy, diabetes by traditional

medical professionals.^[2] The available description of *Mamajjaka* in Ayurveda is not enough to show the multidimensional therapeutic potential of this plant. A well-known traditional herb named *Mamajjaka*, available in Gujarat and Madhya Pradesh.^[3] The current review focuses on the *Mamajjaka* drug used mainly in the treatment of Diabetes mellitus.

Mamajjaka



Latin Name: *Enicostemma littorale* Blume

Family: Gentiniaceae

Part used: Whole plant

Rasa Panchaka

Rasa: Tikta

Guna: Laghu, ruksha

Virya: Ushna

Vipaka: Katu

Doshaghnata: Kaphapittashamaka

***Rogaghnata* (Therapeutic indication)**

Amadosha, Vibandha, Yakritadaurbalya, Krimi, Raktavikara, Shotha, Premaha, Madhumeha, Tvagvikara, Vishamajvara, Medoroga, Visha, Atisara.

Chemical constituents *Mamajjaka Churna*

Swertiamarin, gentiocrucine, enicoflavine, apigenin, genkwanin, isovitexin, swertisin saponarin, 5-O-glucosylswertisin, 5-O-glucosylisoswertisin, gentiocrucine, swertiamarin tetraacetate, 3-acyl-3, 4-dehydrogentiopicroside, ophelic acid, nhexacosanol, heptacosane, nonacosane, myristic acid, stearic acid, oelic acid, gentianine, betulin, alkaloids (plant).^[4]

Taxonomical classification

Kingdom: *Plantae*

Subkingdom: *Tracheobionta*

Super division: *Spermatophyta*

Division: *Magnoliophyta*

Class: *Magnoliopsida*

Subclass: *Asteridae*

Order: *Gentianales*

Family: *Gentianaceae*

Genus: *Enicostema*

Other Species

Enicostema verticillatum (L.) Engl. ex Gilg

Enicostema axillare (Lam.) A. Raynal ssp. *littorale* auct. non (Blume)

Enicostema littorale auct. non Blume

Synonyms of Mamajjaka

Nagajivha, *Mamajjaka*, *Nahi*, *Tikshnapatra*, *Vitikshnika*, *Krimihrit*, *Ksharakarma*.^[5]

References of the drug Mamajjaka

Shodhala nighantu mentioned *Lakshmanadi varga*, *Shaligram nighnatu* and *Priya Nighantu* in *Shatapushpadi varga* in *Nighantu kala*.

Vernacular name^[6]

Hindi: *Chota Chirayata*, *Katvinayi*, *Chota kirayata*.

Gujrati: *Mamijava*, *Madvinabi*, *Mamejavi*, *Mamejava*, *Mimijvi*.

Bengali: *Nagajivha*.

Mallyalam: *Vellaruku*, *Vallari*, *Vellaragu*.

Marathi: *Kadavinayi*, *Mamajava*, *Taravadi*

Tamil: *Vallari*, *Vellarugu*.

Telugu: *Chevvu-kurti*, *Nelaguli*, *Nelagulimidi*.

Distribution^[7]

Generally found in open areas throughout India, with the exception of a few states such as West Bengal, up to an altitude of 500 metre, and also in coastal areas. Sri Lanka, Malaya, Tropical Africa, and the West Indies are among the countries where it is available.

Flowering and Fruiting: July-November

Collection: October-November

Part used: Whole plant

Actions & uses^[8]

The plant is bitter, acrid, thermogenic, digestive, carminative, stomachic, laxative, anthelmintic, anti-inflammatory, liver tonic, astringent, depurative, revulsive, antiperiodic and is useful in dyspepsia, flatulence, colic, helminthiasis, abdominal ulcers, hernia, constipation, dropsy, swellings, liver disorders, glycosuria, leprosy, skin diseases, pruritus, intermittent fevers and malaise.

Pharmacological activity^[9]

Antimalarial, anti-inflammatory, anti-diabetic, cardiac depressant, and schizontocidal properties.

Pharmacological properties of *E. littorale*^[10]

Antimicrobial activity, Anthelmintic activity, Antinociceptive effect, Antioxidant activity, anti-inflammatory activity, Hepatoprotective activity, Antihyperlipidemic activity, Hypoglycemic activity, Anti-hyperinsulinemic activity, Diabetic neuropathy activity.

Nutritional information^[11]

According to a nutritional analysis of *E. littorale* by the National Institute of Nutrition, Indian Council of Medical Research, 100gm fresh *E. littorale* greens contain 140 Kcal energy, 7gm protein, 0.7gm fat, 26.5gm carbohydrates, 4.2gm fibre, 8.4gm minerals, 49.9mg iron, 1,641mg calcium, 81mg phosphorous, and 53.2gm moisture (Dalit Database 2006). Based on this analysis, 100gm of fresh *E. littorale* daily would be highly nutritious and recommended.

DISCUSSION

Mamajjaka is well known Single drug of *Diabetes mellitus* and commonly used in all Ayurveda dispensary for diabetes mellitus. Due to its *Dipana-Pachana-karma* properties it works on *Dhatwgnimandya* and *Amapachana*. Though both fasting and post-prandial sugar are present in blood, there mechanism of production is quite different. As fasting blood sugar is increased due to inadequate suppression of gluconeogenesis i.e., insulin deficiency and post-prandial blood glucose is increased due to reduced peripheral utilization of glucose i.e., insulin resistance. In addition to its *tikta rasa* properties which acts on *Sama-pitta* and *vidagdha-ajirna* which may lead to increase post prandial blood sugar. It acts on *Meda* and *Mamasa* by *Lekhana-karma*. Its *Kapha-pittashamaka* properties decrease most of the symptoms of *Madhumeha*. As per the *Acharya Vagbhata*, *Tikta Rasa* is acts against the *Kleda*, *Meda*, *Vasa*, *Majja*, *Mutra* in order to clarify their excess. (May be due to *lekhana* property). Also, the *Guna and Vipaka* acts against the all *samprapti ghataka* that are responsible for *sthula Madhumeha* (That are excess *Meda*, *Sveda*, *Vasa*, *Lasika*, *Majja*, *Mamsa* and all the body component contains liquids). Therefore, this drug holds capacity to act on *tridosha* mainly *Kaphapitta*. *Dushya* is *meda*, *mamsa*, *rasa*, *rakta* and *shukra*. *Medovaha*, *Mamsavaha*, *Mutravaha*, *Raktavaha*, *Rasavaha Srotasa* are involved. *Jatharagni* and *dhatwagni dipana* and *amapachana*.

CONCLUSION

Mamajjaka is considered as one of the best drug for curing disease diabetes. It possesses the digestive, carminative, stomachic, laxative, anthelmintic, anti-inflammatory, liver tonic, astringent, depurative, revulsive and antiperiodic properties.

REFERENCES

1. Modak M, Dixit P, Londhe J, Ghaskadbi S, Devasagayam TP. Indian herbs and herbal drugs used for the treatment of diabetes. J Clin Biochem Nutr, May, 2007; 40(3): 163-73.
2. Saranya R, Thirumalai T, Hemalatha M, Balaji R, David E. Pharmacognosy of *Enicostemma littorale*: a review. Asian Pac J Trop Biomed, Jan, 2013; 3(1): 79-84.
3. Tanna SP, Patgiri B, Shukla VJ, Prajapati PK. Pharmaceutical standardization of *Mamajjaka* (*Enicostemma littorale* Auct. non Bl) Ghana. Ayu., Apr, 2012; 33(2): 294-8.
4. Database on medicinal plants used in Ayurveda, K.V. Billore et.al., vol.7, New Delhi, CCRAS, 2005; 312.
5. *Shodahala Nighantu*, edited by P V Sharma., M.S. Uni. Baroda, 1978; 74.

6. Database on medicinal plants used in āyurveda, K.V. Billore et.al., vol.7, New Delhi, CCRAS, 2005; 311.
7. Database on medicinal plants used in āyurveda, K.V. Billore et.al., vol.7, New Delhi, CCRAS, 2005; 311.
8. Database on medicinal plants used in āyurveda, K.V. Billore et.al., vol.7, New Delhi, CCRAS, 2005; 311.
9. Database on medicinal plants used in āyurveda, K.V. Billore et.al., vol.7, New Delhi, CCRAS., 2005; 312.
10. Dr. Nidhi Mishra, & others, An ayurvedic herb: *Enicostemma littorale blume*-A review article. Journal of Medicinal Plants Studies, 2017; 5(1): 78-82.
11. Dr. Nidhi Mishra, & others, An ayurvedic herb: *Enicostemma littorale blume*-A review article. Journal of Medicinal Plants Studies, 2017; 5(1): 78-82.