

REVIEW ON MORINGA PTERYGOSPERMA GAERT W. S. R. TO ITS ANULOMAN
EFFECT AND THERAPEUTIC INDICATIONSDr. Shiv Kumar Mishra*¹ and Dr. Sumita D. Ram²¹Asst. Prof., Department of Dravyaguna Vigyan, Govt. (Auto) Dhanwantari Ayurvedic College, & Hospital, Ujjain (M.P.) India.²Reader & HOD, Department of Dravyaguna Vigyan, Govt. (Auto) Dhanwantari Ayurvedic College & Hospital, Ujjain (M.P.) India.***Corresponding Author: Dr. Shiv Kumar Mishra**

Asst. Prof., Department of Dravyaguna Vigyan, Govt. (Auto) Dhanwantari Ayurvedic College, & Hospital, Ujjain (M.P.) India.

Article Received on 25/07/2021

Article Revised on 15/08/2021

Article Accepted on 05/09/2021

ABSTRACT

The natural sources of healing and health management provided cure for various types of health ailments & in this regards plant based drug offers health benefits in many pathological conditions. The traditional as well as modern medical science described therapeutic potential of many plants and plant based medicine. Moringa pterygosperma Gaertn is one such plant which possesses enormous health benefits and used in many countries for its medicinal, nutritional and economic values. Moringa pterygosperma helps greatly in malnutrition especially in growing children and provides relief in constipation and gas trouble, as per Ayurveda this property of plant can be considered as Anuloman effect. The plant possesses nutritive and digestive constituents therefore relieve Apan vayu vikriti and impart Anuloman effect, the laxative action of plant constituent offers therapeutic benefits in constipation and indigestion.

KEYWORD: Moringa pterygosperma, Saijhan, Anuloman, Laxative.

INTRODUCTION

Moringa pterygosperma tree is native to India, common household plants in south India, used as food ingredient and also used for medicinal purpose. It is commonly known as horse radish tree, saijhan, sajna and sajiwan, etc. belongs from family *Moringaceae*. This is tall tree, produces long green pods, possesses delicate foliage, white-yellow flowers and generally grows on dry sandy soil. It's pods used in food and this plant offers huge medicinal value due to the presence of 4-alpha-L-rhamnopyranosyloxy benzyl glucosinolate.^[1-5]

Scientific Classification

Kingdom:	Plantae
Division:	Magnoliophyta
Family:	Moringaceae
Genus:	Moringa
Species:	Pterygosperma

As per ayurveda this plant gives therapeutic benefits in *Krimi rogas*, leaves possesses *Sukrala*, *Chakusya* and *Vishaghna*, etc. properties. This plant gives anti inflammatory response, acts as cardiac and circulatory stimulant, offer antipyretic effect and can be used as an anthelmintic. The digestive, carminative and laxative properties makes it useful drug for treating ailments related to the digestive or metabolic system. The major

indications of plant are *Krimi*, *Galagama*, *Sirahsala*, *Kandu*, *Pimaroga*, *Sotha*, *Medo rogai* and *Gulma*, etc. As per modern science this natural plant can be used for rheumatic arthritis, asthma, liver ailments and as a nutritional supplement, etc.^[3-7]

The medicinal value of this plant can be attributed to the following properties:

Rasa:	Katu & Tikta
Guna:	Laghu, Ruksha & Tiksna
Virya:	Usna
Vipaka:	Katu

The *Katu & Tikta Rasa* contributed towards *Dipana Karma* of plant, *Usna Virya* provides *Kapha-hara* effect while *Laghu, Ruksha & Tiksna Guna* gives *Vata-hara* effect and *Usna Virya* also provides *Sukrala* effects. The other medicinal properties of plant are *Hridya* and *Chakusya*.

Specific Indication of *Moringa pterygosperma* Gaert

I. Digestive system

The *Tikshna* property improves appetite, acts as digestive, induces motility, *Madhu shigru* imparts purgative effect thus clear digestive system.

2. Circulatory system

The *Ushna guna* acts as a stimulant thus boost functioning of heart and maintain circulation of body fluids.

3. Respiratory system

The *Kaphaghna* effect is considered useful for *Kaphaja kasa* and powder is useful for *Shodhana nasya*.

4. Urinary system

The *Ushna* & *Tikshna* properties stimulate kidneys and enhance urinary functioning therefore offers health benefits in dysuria, renal calculi and maintain blood pressure.

5. Reproductive system

Stimulates menstruation due to *Ushna* property and considered useful for dysmenorrhoea and menstrual problem.

6. Medoroga

Moringa pterygosperma Gaert helps in *Medoroga*, maintain nutritional supply therefore balances effects of malnutrition.

7. Skin ailments

Tikshna and *Ushna* property induces process of sweating, thus used in skin diseases and helps in wound healing.

Specific indications of *Moringa pterygosperma* Gaert as per Ayurveda

- ✚ **Pratisyaya:** Root of *Sigru* is useful in *Pratisyaya*.
- ✚ **Krimi:** Decoction of *Sigru* used in *Krimi Roga*.
- ✚ **Netraroga:** Juice of *Sigru* leaves helps to clean eyes.
- ✚ **Dadru Kustha:** *Sigru* paste helps in *Dadru Kustha*.

Chemical constituents

It contains protein, fat, carbohydrates, vegetable fibres, calcium, phosphorus, copper, iodine, carotene, ascorbic acid, lucine, alkaloids, pterygospermin (active antibiotic principle), alkaloids; moringine, essential oil, phytosterol, resins, glycosides and thiocarbamates, etc.

These constituents provide relief in general & nervous debility relieves common cold, bronchitis, anaemia, provides nourishment to pregnant women, cure dizziness, migraine, relieves piles and mitigates swelling and pain [7-9].

Anuloman Effect of *Moringa pterygosperma* Gaert:

This plant possess digestive and nutritive properties therefore offers *Anulomana* effect and acts as purging, stimulates evacuation of the bowels and complete process of digestion. The constituents of plant accelerate digestion by facilitating evacuation of fecal matter and reliving gases from stomach.

As per Ayurveda *Anulomana* drug break bonds between *Mala* and intestinal mucosa and complete

digestion process thus cause excretion of flatus and fecal matter. The increase in intestinal motility also facilitates metabolic activities. As per ayurveda the *Anulomana* effect of drug mainly associated with pacification of vitiated *Vatadosha*.

The *Anulomana* effect of plant offers benefits in following pathological conditions:

1. This effect of plant relieves *Anaha* (Flatulence) due to their *Deepana Pachana* effects. These effects can be attributed to the *Katu, Tikta, Laghu, Tikshna* and *Usna* properties of formulation. *Anulomana* effect of plant treat *Mandagni* and regulate *Anulomana gati* of *Vayu*
2. *Deepana, Pachana* and *Vatanulomana* effect helps in symptoms of *Chardana*.
3. *Katu, Tikta, Laghu, Tikshna* and *Ushna Virya* reduce production of *Ama* and relieve symptoms of *Malamutavayu Vibaddham*.
4. Relieves *Vimarga-gamana* type of *Dusti* in *Gulma Roga*.
5. Cure *Vistambha* (stasis of food) due to the *Vatanulomana* action *Prakupita vayu* get improved.

The plant helps to normalizes *Vata dosha* and causes *Anulomana* effect, this effect clears obstruction of pathway of *Vayu*, metabolizes and controls movement of *Vata dosha*. This effect alter consistency of fecal matter and facilitate process of defecation and excretion therefore also responsible for *Virechana* (purgative) effect which detoxify body and removes accumulated *Mala* from body. The *Sramsana, Bhedana & Rechana* are other effects associated with *Anulomana* drug.^[7-11] The properties of plant responsible for *Anulomana* action are depicted in **Figure 1**.

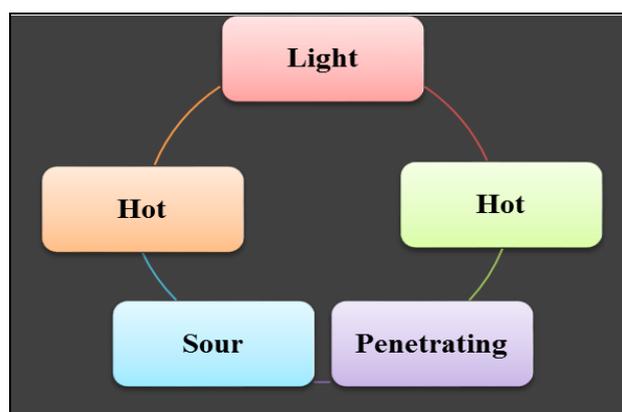


Figure 1: Properties of drug responsible for *Anulomana* action.

These properties facilitate digestion and removal of the blocks and evacuation of contents. These properties of constituents present in *Moringa pterygosperma* Gaert provides several health benefits in digestive ailments.

CONCLUSION

The plant *Moringa pterygosperma* Gaert is very important natural source of medicine as well as food stuffs, this plant is well known for its dietary and medicinal values. *Moringa pterygosperma* Gaert possess many health benefits including *Kushthaghna*, *Kandughna*, *Pleehaghna*, *Medoroghna*, *Vidradhihara*, *Ashmarighna*, *Shothaghna*, *Purish (Sara)*, *Agnivivardhana*, *Aamhara* and *Mutravaha* effects. The plant *Moringa pterygosperma* Gaert can stimulate intestinal motility therefore helps in the treatment of *Malavibandha*. The *Katu*, *Tikta*, *Ushan*, *Laghu* and *Ruksha* properties alleviate *Vata* and aggravate *Pitta* thus metabolizes and eliminate *Mala* from the body, releases *Vayu* and control movement of *Vayu* therefore facilitates evacuation of *Vayu* and fecal matter and imparts *Anulomana* action.

REFERENCES

1. Caceres J. *Ethnopharmacol.* 1992; 36: 233; *Chem Abstr*, 1993; 119: 529.
2. Tamizhamani TT, Panusankar S, Nandey J, Suresh B Investigation of herbal drugs. *Ind. J. Pharma*, 2003; 37(4): 208-210.
3. Radovich T, Farm and forestry production and marketing profile for *Moringa oleifera* In: specialty Crops for pacific Island Agroforestry. Elevitch. PAR, Holualoa, 2009; 34-36.
4. Anwar F, Ashraf M and Bhangar MI. Interprovenance variation in the composition of *Moringa oleifera* oilseeds from Pakistan. *J Am Oil Chem Soc.*, 2005; 82: 45-51.
5. Bhavmishra, Bhavprakashnighantu, edited by chunekar KC and Pandey CS. 6th Edition, chauhambha Bharat Academy Varanasi, 2000.
6. Agniveshacharaksamhita elaborated by charaka and drudhabala with ayurvedicdipika commentary by chakrapanidatta, edited by vaidyayadhavaji trikamaji acharya, chawkambha vidyabhawana, Varanasi, reprinted, 2000.
7. *Susrutasamhita*, with *nibandhasamgraha* commentary of shridalhanacharya and the *nyayachandrikapanjika* of shrigayadasacharya.
8. <http://www.tramil.net/en/plant/moringa-ptyergosperma>, accessed on, 15/08/21.
9. Md. Usman, A Review on Drumstick Tree (*Moringa pterygosperma* Gaertn): Multiuse Tree with Higher Economical Values. *International Journal of Current Pharmaceutical Review and Research*, 2012; 3: 15-22.
10. Morton, JF. The horseradish tree, *Moringa pterygosperma* (Moringaceae) — a boon to arid lands? *Economic Botany*, 1991; 45(3): 318-33.
11. Prajapati ND, Kumar T, Purohit SS, Sharma AK, A Hand book of Medicinal Plants: A Complete Source book, Vol. I, Agrobios India, Jodhpur, 2003; 350A-351.