

A REVIEW ON NUTRITIONAL VALUE AND THERAPEUTIC PROPERTIES OF TILA (SESAMUM INDICUM)

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ABSTRACT

Tila (*Sesamum indicum* L.) consists of dried seeds of *Sesamum indicum* Linn. (Fam, Pedaliaceae), a rich source of edible oil. It is belonging to the family Pedaliaceaeis cultivated throughout the plains of India. Most of the oils used in Ayurvedic medicines has sesame oil as a base. Sesame was a major oilseed in the ancient world because of its ease of abstraction, its great stability, and its drought resistance. Sesame seeds have an excellent nutritional value. The seeds are especially high in copper, manganese, calcium, and magnesium. *Tila* is having *Guru*, *Snigdha guna*, *madhu rasa*, *ushna veerya* and having *Madhur Vipak*. The Bhavaprakasha Nighantu describes three types of *Tila* seeds, viz., black, white and red. Black and white among white variety sesame seeds contain more quantity of lignin compounds. The black sesame seeds are rich in B vitamins and iron. It is also rich in calcium and zinc. These minerals help to support healthy bones, muscles, blood, and nervous system.

Keywords: *Tila*, *Rasa*, *Veerya*, *Sesamum indicum*, Sesame.

INTRODUCTION

Tila (Sesame) is a one of the ingredients as a food and Spices in Indian food which is used in every household for cooking, religious and medicinal purposes. *Tila* (*Sesamum indicum* L.) consists of dried seeds of *Sesamum indicum* Linn. (Fam, Pedaliaceae), belonging to the family Pedaliaceaeis an erect glandular

pubescent, annual herb branching from the base, it is a herb extensively cultivated throughout the plains of India upto 1200 m for its seeds. Its seed is a rich source of edible oil.¹ The Bhavaprakasha Nighantu describes only three types of *Tila* seeds, viz., black, white and red. There are two variety of sesamum

existing in India. Black and white among white variety sesame seeds contain more quantity of lignin compounds than the black and brown varieties, in which sesamin and sesamol are the two major lignans.² Both of them having nearly similar chemical composition. White sesame seeds are considered to be better for edible purpose and the black sesame seeds are preferable for use of medical conditions. Sesame oil is the one of the best drugs used for *vatashamana*. Most of the oils used in Ayurvedic medicines has sesame oil as a base. Sesame was a major oilseed in the ancient world because of its ease of abstraction, its great stability, and its drought resistance.³

Objectives:

1. To review of *Tila* (*Sesamum indicum* L.) properties with reference to Ayurveda.
2. To review therapeutics properties and medicinal uses of *Tila*.

Methodology:

Source of Data: Conceptual review of *Tila* (*Sesamum indicum* L.) has been done from Various *Nighantus* and Ayurvedic Pharmacopeia of India (API) and other classical Ayurveda books, similarly, review also done from published paper in national and international journals.

Tila (*Sesamum indicum* L.):

The Bhavaprakasha Nighantu describes three types of *Tila* seeds, viz., black, white and red.⁴

SYNONYMS:⁵

Sanskrit	: <i>Tila</i>
Assamese	: Simmasim
Bengali	: <i>Tilagachh</i>
English	: Sesame, Gingelly-oil Seeds
Gujrati	: <i>Tall</i>
Hindi	: <i>Tila, Teel, Tili</i>
Kannada	: <i>Accheellu, Ellu</i>
Malayalam	: <i>Ellu</i>
Marathi	: <i>Tila</i>
Oriya	: <i>Til</i>
Punjabi	: <i>Til</i>
Tamil	: <i>Ellu</i>
Telugu	: <i>Nuvvulu</i>
Urdu	: <i>Kunjad</i>

Chemical constituents: Chemical constituents in *Tila* (sesame seeds) is – around 55% oils, sesamin, sesamol, sesamol (3,4- methylenedioxy-phenol), Fatty oils are mainly composed of 48% of oleic acid,

37% linoleic acid, palmate acid, stearic acid, arachidonic acid. *Krishna Tila* (black sesame) also contains vitamin E, B-complex vitamins (especially niacin), phytosterols, proteins, sucrose, saccharides, sesamose, and trace amount of phosphorus, potassium and cytochrome C. *Tila* (black sesame seeds) is very good source of calcium, which has been proved through various studies across the globe.

Sesame Seeds Nutritional Profile: Sesame seeds have an excellent nutritional value. The seeds are especially high in copper, manganese, calcium, and magnesium. Here are some notable vitamins, minerals, and other nutrients from approximately 28-30 gm of Sesame. Sesame protein is rich in sulphuraminoacids, particularly methionine (2.6-3.5g /16g/N) and tryptophan. It has abundant oleic and linoleic acids.⁶

Manganese – 0.7 mg.

Copper – 0.7 mg.

Calcium – 277 mg.

Iron – 4.1 mg

Magnesium – 99.7 mg.

Properties & action:⁷

Guna - *Guru, Snigdha*

Rasa - *Madhur*

Anu Rasa- *Kashay, Tikta*

Veerya - *Ushna*

Vipaka - *Madhur*

Action of *Til* tail:

Til taila is *Agneya, Ushna, Tikshna, Madhur rasa, madhur vipaki, Bruhan, Prinana, Vyavayi, Sushma, vishad, vikasi, Twak-prasarak, medhya vardhak, Mardavkar, Mansavardhak, Staryakar, Vranahitkar.*

Roots and leaves are emollient, and their decoction forms a good hair wash to promote hair growth and blacken them. Externally it is used for dryness of skin. Oil is widely used as ingredient of pharmaceutical industry. The oil is also used in formulation of hair oils.

Important Formulations- *Narasimha Churna, Jatiphaladya Churna, Samangadi Churna, Haridradi Lepa, Vrushya, Pupalika Yoga, Nagaradi Yoga, Tiladi Upanaha, Tiladi Yoga, Priyaladi Yoga, Mustadi Upanaha, Sunthyadi Churna, Pathyadi Gutika, Hingvadi Yoga, Paniya Kshara, Bhallatakadi Modaka.*

Therapeutic Uses : *Ashmari, Akshiroga, Atisara, Amashula, Galaganda, Gulma, Hikka, Krumi, Kshaya, Kasa, Kushtha, Pinasa, Pradara,*

Pratishyaya, Shankhaka, Shakuni Graha, Pravahika, Raktatisara, Svasha, Trusha, Visarpa, , Nadi Vrana, Svitra, Granthi, Upadamsha, Vidaraka, Alasa, Khalitya, Palitya, Kumara, Pitumeeshagraha, Mutraghata, Dantaroga, Dantaharàa, Vatika Mukharoga, Atidgdha, PleeHaroga, Mushika Dansha, Udvarta, Yonishula, Udara, Vatarakta.

DOSE - Powder 5-10 Gm/Day.

DISCUSSION

Sesame is used in villages for auspicious occasions, rituals, and marriage ceremonies due to its religious and mythological importance. According to Ayurveda *Tila taila* (sesame oil) is the best *vataharadraya*, black sesame is mostly preferred for purpose of Ayurvedic medicine. It is utilized in the treatment of *arshas* (piles), *vranaropana* (wound healing), bhagna (fracture), *atisara* (diarrhoea), *dantaroga* (dental diseases), *vatahonita* (gout), *palitya* (premature greying of hair), for *keshasamvardhana* (growth of hair) and *dantadaurbalya* (dental disorders) etc. *Tila* can be easily administered as food in form of *tila laddu* or sweets made up of *Tila* and *jaggery* it also acts as hematinic and *balya*. It is good for increasingly intelligence and hairs, hard to digest improves color cold to touch mitigates vata, produces less quantity of urine increases, intelligence, digestion, *kapha* and *pitta* also increases milk and is helpful in wound healing of all the oils, *til* oil is the best one for strength and Uriction. Oils are generally similar in properties to their source among them the chief is that of *Tila*, it is useful in procedure for *Panchakarma* viz. *Snehan*, *basti* etc.⁸ A detailed description described in Samhitas like Charaka Samhita, Sushruta samhita, Bhavaprakasha about use of Sesame. Acharya Sushruta, states that the paste of sesame and *Mudga* (green gram) and also the soup of *Mudga* (green gram) is a wholesome diet.⁹ A combination of *Tila* (Sesame), *Masha* (Black gram), *Ashwagandha* (*Withania somnifera*) mixed with goat's ghee and honey promotes strength, when consumed in the morning.¹⁰

CONCLUSION

Tila (*Sesamum indicum* L.) seed is a rich source of edible oil, similarly it is nutritionally rich oil seed. Its therapeutic properties are useful in treating many

ailments, *Tila tail* is used for many types of treatment during Panchakarma procedure of Ayurveda as in *Snehan* and *Basti*. *Tila* is also useful in many cultural and ritual customs in Indian. Its Agriculture production might increase if it needs to be explored for better utilization, if it is properly cultivating then it's good quality would be available for therapeutic purpose.

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