

Review on *Tila Taila* along with Physico Chemical Analysis

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Abstract

In Ayurvedic literature, when we say taila, then it means only tila taila. Varied descriptions are available in the texts. Its importance is mentioned in many places owing to its uses in many different ways. The whole plant body can be made useful, like the leaves are used as good hair washing products, seeds as digestive, laxative, useful in haemorrhoids. Tila in the form of oil can be used in vasti karmas, as nasya and also as eatables. It also possess doshahara action. Taila, is mentioned in the classics as an alleviator of vata dosha. It is even said that there is no other medication better than taila which can cure the vatika disorders. In the present article, the review and physico chemical analysis of tila taila is done. Along with the reviews collected from various sources, the physico chemical analysis of tila taila will provide more accurate data for its use in the treatment purpose.

Keywords

Tila, Taila, Tila Taila



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INTRODUCTION

Since ancient times in India, *tila* has been given much importance among the medicinal herbs. *Tila taila* is considered as the best among all the vegetable oils. It has both external and internal uses. It is one of the best remedy for pacifying *vata dosha* and can be applied in the *vatavyadhis*. Its external massage is good for skin, hair and joints and also removes skin dryness. The oil contains vitamin E for which it can penetrate the skin easily. This oil can reduce cholesterol and hence can be used in cooking. Its internal use is for improving health, maintaining iron level, controlling heart disease and improving strength. *Acharya Charaka* has grouped it in the *Mahakasayas* under *swedopaga* and *purisha virajaniya*. *Maharshi Sushruta* has placed *tila taila* among the best herbal oils.

AIMS AND OBJECTIVES

Review and Physico Chemical Analysis of *tila taila*.

MATERIALS

This article is based on a review of Ayurvedic texts. Materials related to *Tila* and *Taila* are collected to the utmost. References were collected from *Charaka*

Samhita, *Sushruta Samhita*, *Astanga Hridaya* and books related to *Dravyaguna*.

The sample test was done in the Drug Testing Laboratory of Govt. Ayurvedic College & Hospital, Jalukbari-14

DISCUSSION

*Tila*¹

Botanical name- *Sesamum indicum*

Family - Pedaliaceae

Classical names- *tila*

Vernacular names-

Eng.-sesame, gingelly

Hindi- *til*, *gingli*

Beng.-*sanki til*, *khasla til*, *rakta til*, *bhadu til*, *kala til*

Tila is an erect, glandular-pubescent, annual herb upto 95cm tall, branching from the base. Leaves alternate or lower opposite and often deeply 3 lobbed, lobes lanceolate, serrate, puberulous beneath, upper leaves entire, lanceolate, much smaller, passing into bracts. Flowers ill smelling, white or pink with yellow marks, axillary, solitary, forming a false raceme at the end of branches. Fruits quadrangular, oblong, compressed capsules. Seeds many, obovoid, compressed, black or white.

Distribution: It is cultivated throughout India upto an altitude of 1200 m.

Parts used: Root, leaf, seed, oil

Actions and uses:

The leaves are demulcent and useful in dysentery, cholera infantum, urinary disorders, eye diseases and skin diseases.

The seeds are astringent, emollient, demulcent, aphrodisiac, laxative, galactogogue, digestive, hair restorer and tonic. They are useful in haemorrhoids, ulcers, burns, dysentery, diarrhoea, polyuria, amenorrhoea, baldness, dermatopathy, migraine, alopecia, venereal disease, eye disease and obesity. The oil is bitter, astringent, digestive, antihelminthic, constipating and emollient. It is good for eye disease, burning sensation of legs, gonorrhoea, otalgia, obesity and emaciation. Externally it is used for dryness of skin and leucoderma.

Ayurvedic properties²:

Rasa- madhura, katu, tikta, kashaya

Guna- guru, snigdha

Veerya- ushna

Vipaka- madhura

Doshagnata- vatashamaka, kaphapittashamaka

Rogagnata- vatashoola, amavata, suryavarta, indralupta, netra roga, atisara, grahani, arsha, raktarsha, pravahika,

vatarakta, hikka, swasa, prameha, pravahika.

Karma- snehana, vedanasthapana, sandheeya, vranashodhana, vranaropana, keshya, medhya, dantya, balya, mutrajanana, rasayana

Chemical composition:

Neutral lipids, glycolipids and phospholipids, arginine, cystine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, tyrosine, valine, ascorbic acid, biotin, choline, folic acid, inositol, niacin, nicotinic acid, pantothenic acid, pyridoxine, riboflavin, sesamol, thiamine, galactose, glucose, 2-acetyl 3-methylfuran, 2-acetylpyrrole, sesamol, octanol, phenol, palmitic, phytic and stearic acids, sitosterol.

Pharmacognosy:

The seeds are flattened, ovoid, pointed at one end, 3-4 mm long, 2mm broad and 1mm thick, whitish or black in colour, longitudinal ridges. The epidermis is characterized by a thin walled palisade, the anticlinal walls being more or less wavy, cells contain spherical mass of crystals of calcium oxalate. The remainder of the testa consists of collapsed cells with yellowish membrane on the inside. The endosperm and

cotyledons consist of cellulosic, polygonal parenchyma containing fixed oil and small aleurone grains. Starch is absent.

Pharmacological activities:

Cholesterolemic, antioxidant, hepatoprotective, nematocidal, antitumour, hypotensive, free radical scavenging activity.

Substitutes and adulterants:

Sesamum oil is used as substitute and adulterant to olive oil and almond oil.

Taila

There is no medication which excels oil in curing *vatika* diseases because of its *vyavayi*, *usna* (hot), *guru* (heavy) and *sneha* (unctuous) properties. When cooked or processed with other drugs, it becomes more powerful therapeutically³. *Taila* alleviates *vata*. It does not aggravate *kapha*, promotes bodily strength, beneficial for skin, it is hot, stabiliser and controls the morbidity of the female genital organs⁴. Oil from sesamum is sweet with accompanying astringent taste, subtle, hot in potency and *vyavayi*. It aggravates *pitta*, binds bowel and reduces the quantity of urine but does not aggravate *kapha*. It is the best among the alleviators of *vata*. It promotes strength, skin health, intelligence and power of digestion. In

combination with various drugs, *tila taila* is said to cure all diseases⁵. Due to the *snigdha*, *ushna* and *guru* nature of *taila*, if it is inconsistently taken for some time, it can alleviate *vata* very easily. Because *vata* is *ruksha*, *sheeta* and *laghu* in nature. So the *gunas* of *taila* can suppress the *gunas* of *vata*⁶.

Taila in the form of *Anuvasana Vasti*: The channels in the body get cleansed by *niruha*. Administration of *samsnehana* or unctuous type of medicated enema to such person promotes his complexion and strength. There is no therapy better than the administration of oil (*anuvasana vasti*) which is specifically useful for the patients afflicted with diseases caused by *vayu*⁷. The *taila* by its unctuousness, heaviness and heating property counteracts the unctuousness, lightness and cooling attributes of *vayu* respectively. Because of this, administration of oil (*anuvasana vasti*) instantaneously produces clarity of mind, and promotes energy, strength, complexion and *agni* (power of digestion and metabolism). Just as a tree irrigated with water at the root becomes beautiful with tender leaves, and during the course of time grows to produce flowers and fruits, similarly, a person becomes young and

beautiful by the administration of *Anuvasana* and *snehana vasti*.

RESULTS

The report of analysis of the sample of *tila taila* (500 ml) which was performed in the Drug Testing Laboratory in Govt. Ayurvedic College, Guwahati

Odour: characteristic

Colour: light golden brown transparent

Wt/ml: 0.862

Acid value: 17.87

Saponification value: 162

Iodine value: 113

Refractive index: 1.45

CONCLUSION

Tila taila is an important *vatahara dravya*. There are a number of references in the Ayurvedic classics which shows the effect of *tila taila* on *vata dosha*. The use of *tila* in the form of oil can be used as *vasti*. *Vasti*, which is said as the best *vatahara* procedure, *taila* when administered in the form of *vasti* can prove to be more effective. The physico chemical analysis helps to know the quality of the drug more precisely and hence its use for treatment purpose can be made easier.

Use of *tila taila* depending upon its constituents⁸-

Alkaloid	CNS stimulants, Pain relievers
Terpenoid	Antibacterial, reduce blood sugars
Flavonoids, phenols	Anti-oxidants, manage heart disease
Saponins	Ant-oxidants, anti-cancerous, Immune booster, lower bad cholesterol, stimulate antibody production
Tanin	Anti-bacterial, antiviral, astringent
Minerals : calcium, Zinc, iron	Relief in arthritis, gout, strengthens bones, nerves, good source of iron
Tocopherol	prevent cancer, heart disease
Sesamin, sesamol	Increase hepatic mitochondrial & peroxisomal fatty acid oxidation rate

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