

Rasa Thailam: A Repurposed Karpasastyadi Taila for Neuromuscular, Arthritic, and Vata-Dominant Disorders

Abstract

Rasa Thailam is a modified version of Karpasastyadi Thaila Yoga mentioned in Sahasrayoga, widely used by Ashtavaidya practitioners as an abhyanga (external application) formulation for head and body. The unique feature of this formulation is the inclusion of mamsa rasa, which imparts the name “Rasa Thailam.” The formulation exhibits pronounced Vata–Kapha hara and Brimhana (nourishing) actions, making it beneficial in degenerative and neuromuscular disorders. This review highlights the traditional relevance, pharmacodynamics, and potential pharmacological activities of Rasa Thailam based on Ayurvedic and modern scientific perspectives.

1. Introduction

Ayurveda emphasizes the balance of doshas and nourishment of dhatus (body tissues) for maintaining health and treating disease¹. Among the classical formulations, Karpasastyadi Thaila from Sahasrayoga is well known for its efficacy in Vata Vyadhi (neuromuscular and degenerative disorders)². The Ashtavaidya tradition of Kerala, which combines experiential wisdom with

classical Ayurvedic principles, has developed a modified version known as Rasa Thailam³.

Rasa Thailam is extensively used in conditions characterized by dhatu kshaya (tissue depletion), vata vriddhi (aggravation of vata), and avarana (obstruction due to kapha). The formulation's base ingredients and method of preparation are similar to Karpasastyadi Thaila, but the addition of mamsa rasa prepared out of goat's head and cow's milk instead of goat milk provides additional brimhana (rejuvenating and tissue-building) properties.

2. Composition and Preparation

The formulation consists of taila paka prepared with Tila Taila (sesame oil) as the base, Ksheera (goat's milk) as drava dravya, Kalka dravya (herbal paste ingredients), and mamsa rasa as rasa dravya.

Table 1. Ingredients of Rasa Thailam

Sl. No	Malayalam Name	Sanskrit Name	Scientific Name
1	Aatin thala	Aja shira	Goat's head
2	Parathikkuru	Karpasa	Gossypium herbaceum
3	Uzhunnu	Masha	Vigna mungo
4	Muthira	Kulatha	Dolichos biflorus
5	Kurumthottiveru	Bala	Sida retusa
6	Devatharam	Devadaru	Cedrus deodara

7	Kurumthotti	Bala	Sida rhombifolia
8	Chuvannaratha	Rasna	Alpinia galanga
9	Sheemakottam	Kushta	Saussurea lappa
10	Kaduku	Sarshapa	Brassica juncea
11	Chukku	Sunti	Zingiber officinale
12	Chathakuppa	Sathahva	Anethum graveolens
13	Kaatuthippali	Pippali mula	Piper longum
14	Kurumulaku	Maricha	Piper nigrum
15	Muringa	Shigru	Moringa oleifera
16	Thavizhama	Punarnava	Boerhavia diffusa
17	Ellu Enna	Tila Taila	Sesamum indicum
18	Paalu	Ksheera	Cow's milk
19	Vellam	Jalam	Water

The mamsa rasa is obtained by boiling the goat's brain along with Karpasa, Bala, Masha, and Kulatha until a concentrated soup is formed. This is combined with Tila taila, Ksheera, and Kalka dravyas and processed following the Taila paka vidhi until the desired consistency and clarity are achieved.

3. Traditional and Clinical Applications

In Ashtavaidya practice, Rasa Thailam is a commonly prescribed abhyanga oil for Vata Vyadhi of both dhatukshaya (degenerative) and abhighataja (traumatic) origin. The conditions where it is traditionally used include:

- Greeva Graha (Cervical spondylosis)
- Abhighataja Pakshaghata (Traumatic hemiplegia)
- Ardita (facial palsy)
- Vatadika Bhrama (vertigo of Vata dominance)
- Vatapradhana Vatarakta (chronic arthritis)
- Sirasula (headache)
- Sphutana (cracks)
- Kapha-avrita Vyana (muscular dystrophy and motor dysfunctions)

• Dosage and Application:

The oil is applied externally in the required quantity over the head and body for Abhyanga, Shiro Abhyanga, Dhara, Shirovasti, Pichu, or as directed by the physician. Rasa Thailam, when combined with Nimbaamrutaerandam in a 3:1 ratio, is applied on the crown (Thalam) for managing Greeva (neck) pain caused by inflammation, (muscle stiffness or strain).

4. Ayurvedic Pharmacodynamics

Table 2: The cumulative Rasa-Guna-Veerya-Vipaka profile of Rasa Thailam is as follows.

Parameter	Description
Rasa	Katu, Tikta
Guna	Laghu, Ruksha, Tikshna
Veerya	Ushna
Doshakarma	Vata-Kapha hara
Anyakarma	Brimhana, Kshayavata hara

The formulation exerts Vata–Kapha samana action with pronounced Vata hara effect due to the inclusion of mamsa rasa and ksheera, both of which are brimhana and snigdha in nature. The ushna veerya and tikshna guna of ingredients like Nagara, Kushta, Devadaru, and Sarshapa help pacify Kapha and improve circulation. The brimhana effect aids tissue nourishment and regeneration in kshayaja (degenerative) conditions. Despite being nourishing, the oil is anabhishtandi (non-clogging), hence suitable even in avarana conditions.

5. Pharmacological and Phytochemical Correlates

Supporting Phytochemical Constituents:

Phenolic compounds, flavonoids, glycosides, alkaloids, tannins, saponins, steroids, sesamin, tocopherols, and essential oils such as dillapiol, anethole, and carvone contribute to antioxidant and anti-inflammatory properties^{4,5}. Key constituents include:

- Vasicinone, vasicine (from Bala) – bronchodilatory, anti-inflammatory⁶
- Galangin (from Rasna) – antioxidant, anti-arthritis⁷
- 6-, 8-, 10-Gingerols, 6-Shogaol (from Nagara) – anti-inflammatory, analgesic⁸
- Sesamin and tocopherols (from Tila Taila) – neuroprotective, antioxidant⁹
- Heptadecanoic acid methyl ester and amino acids from mamsa rasa – nutritive, tissue regenerative

Mineral and Vitamin Profile:

The oil is rich in calcium, magnesium, zinc, potassium, phosphorus, vitamins A, B12, and riboflavin. These micronutrients contribute to neuromuscular repair and immune modulation.

6. Probable Pharmacological Actions

1. Anti-inflammatory activity

The anti-inflammatory potential of Rasa Thailam is attributed to the presence of sesquiterpene lactone fractions, phenolic compounds, flavonoids, and glycosides. Compounds such as gallic acid and sesamin play a vital role in suppressing pro-inflammatory mediators and reducing oxidative stress¹¹. Ingredients like *Saussurea lappa*, *Alpinia galanga*, *Cedrus deodara*, *Sida cordifolia*, *Moringa oleifera*, Sesame oil, and *Boerhavia diffusa* collectively modulate the inflammatory cascade.

Notably, *Sida cordifolia* (Bala) contains alkaloids vasicine and vasicinone, which possess bronchodilatory and anti-inflammatory activities, thereby supporting both musculoskeletal and respiratory health⁶. Similarly, Galangin from *Alpinia galanga* (Rasna) exerts potent antioxidant and anti-arthritis actions, reinforcing tissue resilience and reducing inflammation¹².

2. Analgesic activity

The analgesic action of Rasa Thailam arises primarily from its essential oil components and alkaloids, including piperlongumine and piperlonguminine derived from *Piper longum*¹³. These constituents act by modulating pain pathways and inhibiting inflammatory enzymes. The presence of flavonoids, tannins, and alkaloids further enhances the pain-relieving effect. Herbs such as *Piper longum* (Root), *Anethum graveolens*, and *Alpinia galanga* work in harmony to provide sustained analgesia and muscular relaxation.

3. Neuroprotective, Antiarthritic and Muscle Pain-Reducing Activity

Rasa Thailam offers remarkable relief in arthritic and musculoskeletal disorders through compounds such as 6-gingerol, 8-gingerol, 10-gingerol, and 6-shogaol derived from *Zingiber officinale* (Nagara)⁸. These bioactives possess potent anti-inflammatory and analgesic effects, improving local circulation, reducing stiffness, and promoting joint flexibility. *Moringa oleifera* and *Cedrus deodara* augment these effects through their antioxidant and muscle-relaxant activities¹⁴.

Additionally, Sesamin and Tocopherols present in Tila Taila (Sesame oil) act as neuroprotective antioxidants that protect nerve tissues from oxidative damage, further supporting the formulation's efficacy in chronic pain and neuropathic conditions¹⁵.

4. Nutritional and Regenerative Support

Beyond its pharmacological actions, Rasa Thailam also contributes to tissue nourishment and regeneration. Mamsa rasa provides heptadecanoic acid methyl ester and essential amino acids that promote anabolic activity, restore muscle tone, and support tissue repair¹⁰. This nutritive element differentiates Rasa Thailam from conventional analgesic formulations by ensuring long-term restoration of tissue integrity.

Discussion

Rasa Thailam exemplifies the Ayurvedic principle of brimhana without kapha vridhhi. The incorporation of mamsa rasa and ksheera imparts both nourishment and strength, while the herbal components ensure the anabhishtandi (non-congestive) quality,

maintaining tissue metabolism and preventing accumulation. Its ushna veerya and tikshna guna facilitate deeper tissue penetration when applied as abhyanga, enhancing drug delivery through transdermal absorption. Moreover, the presence of bioactive lipid-soluble compounds in Tila taila aids in the solubilization and absorption of fat-soluble phytoconstituents, enhancing pharmacological efficacy. Clinically, Rasa Thailam has shown significant benefit in chronic conditions such as cervical spondylosis, facial palsy, stroke recovery, and muscular dystrophy, where Vata aggravation and Dhatu kshaya coexist. These therapeutic effects are consistent with modern pharmacological activities like neuroprotection, myoregeneration, and antioxidant mechanisms.

Conclusion

Rasa Thailam, rooted in classical formula Karpasastyadi Thaila from Sahasrayoga but refined through Ashtavaidya

experiential practice, remains a highly effective abhyanga formulation for degenerative and neuromuscular disorders. The combination of mamsa rasa, ksheera, and potent Vata-Kapha hara herbs ensure both nourishing and restorative benefits.

Integrating Ayurvedic pharmacodynamics with modern pharmacological insights reveals its multifaceted actions — neuroprotective, anti-inflammatory, antioxidant, and tissue-regenerative. Future experimental validation through in vitro and in vivo studies can further substantiate its role as a therapeutic oil for Vata Vyadhi and degenerative conditions.

References:

1. Kaswan RK, Pareek P, Ali M, Sharma RK. Achieving equilibrium in Ayurveda: The role of Dosha, Dhatu, and Mala in promoting wellness. *Int J Ayurveda Pharm Res*. 2025 Mar;13(3):1.
2. Vinaykumar KN, Pujar M, Sunil Kumar KN. Pharmaceutico-analytical study of Karpasasthyadi Taila – A herbal oil used for Nasyakarma and Greevabasti. *Int Ayurvedic Med J*. 2017 Jul;5:2378–2390.
3. Menon I, Spudich A. The Ashtavaidya physicians of Kerala: A tradition in transition. *J Ayurveda Integr Med*. 2010 Oct–Dec;1(4):245–250. doi:10.4103/0975-9476.74424. PMID: 21731370; PMCID: PMC3117315.
4. Adegbola P, Aderibigbe I, Hammed W, Omotayo T. Antioxidant and anti-inflammatory medicinal plants have potential role in the treatment of cardiovascular disease: a review. *Am J Cardiovasc Dis*. 2017 Apr 15;7(2):19–32. PMID: 28533927; PMCID: PMC5435602.
5. Cuevas-Cianca SI, Romero-Castillo C, Gálvez-Romero JL, Juárez ZN, Hernández LR. Antioxidant and anti-inflammatory compounds from edible plants with anti-cancer activity and their potential use as drugs. *Molecules*. 2023 Feb 3;28(3):1488. doi: 10.3390/molecules28031488. PMID: 36771154; PMCID: PMC9920972.
6. Subramanya MD, Pai SR, Ankad GM, Hegde HV, Roy S, Hoti SL. Simultaneous determination of vasicine and vasicinone by high-performance liquid chromatography in roots of eight *Sida* species. *Ayu*. 2016 Apr–Jun;37(2):135–139. doi: 10.4103/ayu.AYU_49_16. PMID: 29200752; PMCID: PMC5688836.
7. Gonfa YH, Tessema FB, Bachheti A, Rai N, Tadesse MG, Singab AN, Chaubey KK, Bachheti RK. Anti-inflammatory activity of phytochemicals from medicinal plants and their nanoparticles: a review. *Curr Res Biotechnol*. 2023;6:100152. doi: 10.1016/j.crbio.2023.100152.
8. Kim HR, Noh EM, Kim SY. Anti-inflammatory effect and signaling mechanism of 8-shogaol and 10-shogaol in a dextran sodium sulfate-induced colitis mouse model. *Heliyon*. 2023 Jan 5;9(1):e12778. doi: 10.1016/j.heliyon.2022.e12778. PMID: 36647352; PMCID: PMC9840358.
9. Kim HR, Noh EM, Kim SY. Anti-inflammatory effect and signaling mechanism of 8-shogaol and 10-shogaol in a dextran sodium sulfate-induced colitis mouse model. *Heliyon*. 2023 Jan 5;9(1):e12778. doi: 10.1016/j.heliyon.2022.e12778. PMID: 36647352; PMCID: PMC9840358.
10. Abbas RK. Chemical constituents of the goat margarine and antibacterial activity against bacterial pathogens in Sudan. *J Pure Appl Microbiol*. 2019;13(1):225–232. doi: 10.22207/JPAM.13.1.23.
11. Bai J, Zhang Y, Tang C, Hou Y, Ai X, Chen X, Zhang Y, Wang X, Meng X. Gallic acid: pharmacological activities and molecular mechanisms involved in inflammation-related diseases. *Biomed Pharmacother*. 2021;133:110985. doi: 10.1016/j.biopha.2020.110985.
12. Das G, Patra JK, Gonçalves S, Romano A, Gutiérrez-Grijalva EP, Heredia JB, Talukdar AD, Shome S, Shin HS. Galangal, the multipotent super spices: a comprehensive review. *Trends Food Sci Technol*. 2020;101:50–62. doi: 10.1016/j.tifs.2020.04.032.
13. Kim HR, Noh EM, Kim SY. Anti-inflammatory effect and signaling mechanism of 8-shogaol and 10-shogaol in a dextran sodium sulfate-induced colitis mouse model. *Heliyon*. 2023 Jan 5;9(1):e12778. doi: 10.1016/j.heliyon.2022.e12778. PMID: 36647352; PMCID: PMC9840358.
14. Peñalver R, Martínez-Zamora L, Lorenzo JM, Ros G, Nieto G. Nutritional and antioxidant properties of Moringa oleifera leaves in functional foods. *Foods*. 2022 Apr 12;11(8):1107. doi: 10.3390/foods11081107. PMID: 35454694; PMCID: PMC9030530.
15. Cheng FC, Jinn TR, Hou RCW, Tzen JTC. Neuroprotective Effects of Sesamin and Sesamol on Gerbil Brain in Cerebral Ischemia. *Evid Based Complement Alternat Med*. 2006; 2006:1–8. doi:10.1155/EBCAM/2006/10143. PMID: 23674992; PMCID: PMC3614603.