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*Research Article*

# Camparative analytical study of *Malatyadi Taila* prepared with *Murchhit* and *Amurchhit Til Taila*

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**ABSTRACT:**

Article content comparative analytical review of Malatyadi Taila prepapred by Murchhit tila taila and Amurchhit Tila taila. Analytical values of following will campare in this article. **The Iodine value** is the number which expresses in grams the quantity of Halogen, calculated as Iodine, which is absorbed by 100 gm of the substance under the described conditions. Oil and ghee contains saturated and unsaturated glycerides and Iodine Value is a measure of the degree of unsaturation of oil or ghee. **The Saponificaiton Value** is the number of milligrams of Potassium Hydroxide necessary to neutralize the free acids and to saponify the esters present in 1 gm of the substance. The liquid under test is filled in a U tube viscometer in accordance with the expected viscosity of the liquid so that the fluid level stands within 0.2 mm of the filling mark of the viscometer when the capillary is vertical and specified temperature is attained by the test liquid. **The acid value** (AV) is the number that expresses, in milligrams the quantity of potassium hydroxide required to neutralize the free acids present in 1 g of the substance. Acid value is the measure of hydrolytic rancidity. **The pH value** conventionally represents the acidity or alkalinity of an aqueous solution. **Total Fatty Matter** Transfer a suitably weighed quantity (depending on the fixed oil content) of the air dried, crushed drug to an extraction thimble, extract with Solvent ether (or petroleum ether, B.P. 40º to 60ºC) in a continuous extraction apparatus (Soxhlet extractor) for 6 hours. **free fatty acid** Mix the oil or melted fat thoroughly before weighing. Weigh accurately about 5 to 10 g of cooled oil sample in a 250 ml conical flask and add 50 ml to 100 ml of freshly neutralised hot ethyl alcohol and about one ml of phenolphthalein indicator solution.

**KEY WORDS:** MMT, AMT, murchhana, til taila,

## INTRODUCTION:

Ayurveda has given priority to keep the person healthy first and besides these efforts, if disease occur then cure it. This means that Ayurveda believes in maintaining goodhealth, free from diseases. The reference of present study of 'Malatyadi taila" in chakradatta shudraroga chikista prakaram,indicated for "Darunak" Darunak is mentioned in shudrarogaadhikar, in which aggravation of vata and kapha together, the sclap becomes cracked dry and has itching, this condition is called Darunak. Acharya has mentioned shodhanchikista for Darunak like, snehan, swedan, shiravedhan, raktamokshan, nasya, shirobasti, etc. Acharya Charaka had described first time primary dosages forms i.e. Swarasa (juice), kalka (paste), kwatha (decoction), hima (cold infusion) & phanta (hot infusion) and mentioned them as Panchvidhakashaya kalpana first time . Acharya Charaka was of the opinion that the drug having quality to produce arogya is the best drug. Keeping this view in the mind a number of secondary preparations have been derived from these five basic preparations eg. Asavarishta (fermentation), lepa (paste), churna, vati (pills) etc. Sneha kalpana is well known among them. Sneha Kalpana may be defined as - 'A pharmaceutical process to prepare oleaginous medicaments from the substances like Kalka, Kwatha and Drava dravyas, in specific proportions by subjecting to a unique heating pattern and duration to fulfill certain pharmaceutical parameters, according to the need of therapeutics'. This process ensures transformation of the active therapeutic properties of the ingredients to the solvents and hence to get fat soluble, water soluble or even the chemical constituents which are soluble in media like Kanji, Butter milk etc. It is again of two types like Ghrita and Taila Kalpana. Taila Kalpana takes important role among sneha kalpana.

**MATERIALS AND METHODS:**

नलिका गन्धनलिका उत्तरदेशे प्रसिध्दा तद् भावे त्वक्:
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**MATERIALS-**

**Drugs used for Tila taila murchhana**

**Table No. 1: Tila taila murchhana**

| Sr. No. | Drug name | Latin name | Part use | Quantity |
|---|---|---|---|---|
| 1 | Manjistha | *Rubia cordifolia Linn.* | Kanda | 60 gm |
| 2 | Haridra | *Curcurma longa Linn.* | Kanda | 15 gm |
| 3 | Lodhra | *Symplocos racemosa Roxb.* | Kanda | 15 gm |
| 4 | Nagarmotha | *Cyperus rotundus Linn.* | Twak | 15 gm |
| 5 | Nalika/substitute twak | *Cinnamomum zaylanicum Blume.* | Twak | 15 gm |
| 6 | Aamalki | *Embelica officinalis Gaertn* | Fruit | 15 gm |
| 7 | Haritaki | *Terminalia chebula Retz.* | Fruit | 15 gm |
| 8 | Bibhitak | *Terminalia bellirica Roxb.* | Fruit | 15 gm |
| 9 | Kevada | *Pandanus odoratissimus* | Patra | 15 gm |
| 10 | Kumari | *Aloe vera Tourn.ex Linn* | Patra | 15 gm |
| 11 | Bala | *Vetiveria zizanioides Linn.* | Mula | 15 gm |
| 12 | Tila taila | - | - | 1 lit. |
| 13 | Jalam | - | - | 4 lit. |

**Table No. 2: Drugs for Murchhit Malatyadi taila (MMT)**

| Sr. No. | Drug name | Latin name | Part use | Quantity |
|---|---|---|---|---|
| 1 | Malati | *Jasminum grandiflorum Linn.* | Pushpa | 50 gm |
| 2 | Karveer | *Nerium indicum Mill.* | Mula | 50 gm |
| 3 | Karanj | *Pongamia pinnata Pierre.* | Beeja | 50 gm |
| 4 | Chitrak | *Plumbago zeylanica Linn.* | Mula | 50 gm |
| 5 | Murchhit tila taila | - | - | 800 ml |
| 6 | Jalam | - | - | 3200 ml |

**Table No. 3: Drugs for Amurchhit Malatyadi taila (AMT)**

| Sr. No. | Drug name | Latin name | Part use | Quantity |
|---|---|---|---|---|
| 1 | Malati | *Jasminum grandiflorum Linn.* | Pushpa | 50 gm |
| 2 | Karveer | *Nerium indicum Mill.* | Mula | 50 gm |
| 3 | Karanj | *Pongamia pinnata Pierre.* | Beeja | 50 gm |
| 4 | Chitrak | *Plumbago zeylanica Linn.* | Mula | 50 gm |
| 5 | Amurchhit tila taila | - | - | 800 ml |
| 6 | Jalam | - | - | 3200 ml |

**Equipments used for preparation of Malatyadi taila for both method.**

- Stainless still vessel
- Cloth
- Khalva yantra
- Stirrer
- Measuring pot
- Clean plastic bottle

**Table No. 4: Showing Comparison of Organoleptic characters between MMT and AMT**

| Parameters | MMT | AMT |
|---|---|---|
| Roop | Dark brown | Yellowish brown |
| Gandh | Specific | Specific |
| Ras | Katu tikta | Katu tikta |
| Sparsh | Mrudu | Mrudu |
| Shabd | - | - |

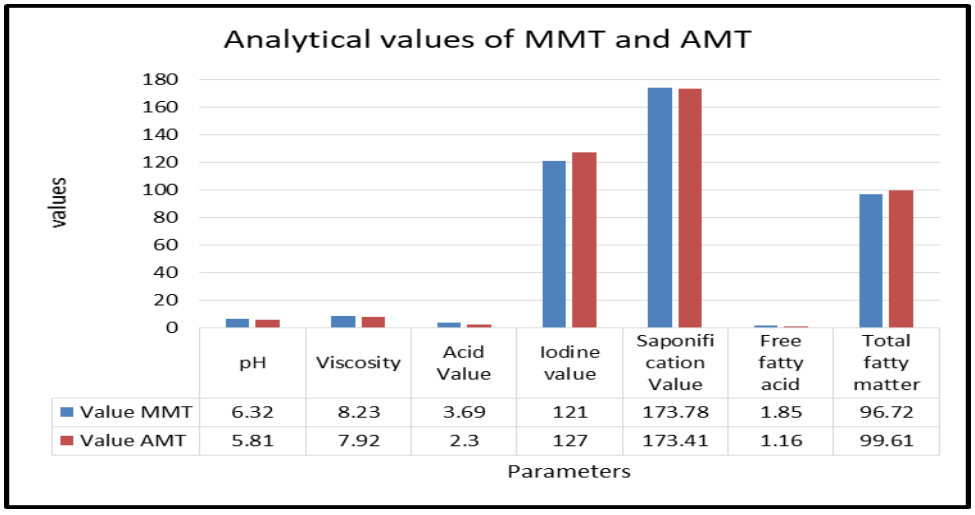
Table No. 5: Showing Comparison between time taken and yield and appearance between MMT and AMT

| Parameters | MMT | | AMT | |
|---|---|---|---|---|
| Intial quantity of taila | 800ml | | 800ml | |
| Final quantity obtained | 600ml | | 700ml | |
| Time taken for pakalakshane | 8-9 hrs | | 8-9 hrs | |
| Appereance | Sticky | | sticky | |
| Yeild percentage | Loss in % | Gain in % | Loss in % | Gain in % |
| | 20% | 80% | 10% | 90% |

Table No. 6: Showing Analytical values of MMT and AMT

| Sr. No. | Parameter | Unit | Value | |
|---|---|---|---|---|
| | | | MMT | AMT |
| 1 | pH | - | 6.32 | 5.81 |
| 2 | Viscosity | cP | 08.23 | 7.92 |
| 3 | Acid Value | - | 03.69 | 2.30 |
| 4 | Iodine value | - | 121 | 127 |
| 5 | Saponification Value | - | 173.78 | 173.41 |
| 6 | Free fatty acid | % | 01.85 | 1.16 |
| 7 | Total fatty matter | % | 96.72 | 99.61 |

Graph No. 1: Analytical values of MMT and AMT




**CONCLUSION:**

Saponification value, free fatty matter, and viscosity increased in MMT as campare to AMT due to murchhana samskar.

Viscosity increased due to murchhana smskar due to fine particles of kalka dravyas passed through cotton cloth at the time of filtration.

Murchhana of taila enhances the properties of taila as per classical analytical study done.

Malatyadi taila prepared with murchhit tila taila had increased saponification value, free fatty acid, and viscosity, where free fatty matter decreased. This indicates that Malatyadi taila prepared with murchhit tila taila (MMT) was better than Malatyadi taila

prepared with amurchhit tila taila (AMT).

Appearance of both MMT and AMT was same that was sticky.

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