

Pharmacognostical and Pharmaceutical Analysis Ofshwadranshtadi Taila in the Management of Pakshaghata.

¹Dr. Vishakha Kheradiya, ²Dr. R. S. Gandhi, ³Prof. Dr. Anup B. Thakar,
⁴Dr. Harisha C. R., ⁵Dr. Shukla V. J.

1 MD 2nd year Scholar, Department of Panchakarma, I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar, Gujarat.

2 Assistant Professor, Department of Panchakarma, I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar, Gujarat.

3 Prof. and HOD, Director, I/C. Vice- Chancellor I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar, Gujarat.

4 Head, Pharmacognosy Lab, I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar, Gujarat.

5 Head, Pharmaceutical Chemistry Lab, I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar, Gujarat.

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ABSTRACT: Pakshaghata is the most common example of such crippling disorder and enlisted among the Vata Nanajatamka Vikara. The most common brain disorder is the cerebrovascular accident which affects 500,000 people a year and represents the third leading cause of death, behind heart attacks and cancer. Pakshaghata can be correlated with Hemiplegia. Hemiplegia is defined as paralysis of musculature of the face, arm, leg on the one side of the body. For the Vata Rogas, Basti is considered as Ardha Chikitsa. In present study Shwadranshtadi Taila has taken for the Basti Karma. Shwadranshtadi Taila is mentioned in Charaka Samhita for the management of Vatavyadhi. Pharmacognostical & Analytical study of Shwadranshtadi Taila has been carried out for the evaluation of its efficacy in the Pakshaghata. Endosperm with oil, fibers of Gokshura, Oil globules, Spool cell of Gokshura seeds and Cork in surface view, Cork in tangential view, Olio-resin content, Scalariform vessels, Simple fibers, simple starch Grain of Aadrak were identified. Analytical study showed 6 spots at 254nm and 4 spots at 366nm.

KEYWORDS: Shwadranshtadi Taila, Pakshaghata, Hemiplegia, Vatavyadhi.

I. INTRODUCTION:

Pakshaghata has been enlisted amongst the 80 types of Nanatmaja Vata Vyadhi and considered in almost all ayurvedic literature under Vata Vyadhi. Pakshaghata is characterized by loss of function and mobility of half of the body either right or left, pain and speech abnormality.

Pakshaghata is included under Ashta Mahagada, which is Swabhavata Duschikitsya. Acharya Charaka has described Pakshaghata which can be understood as body's Sira & Snayu are clunched by Doshacra using their emaciation along with pain (Toda & Shoola), if one foot & hand is involved it is known as Ekangroga & if whole body is involved it is known as Sarvangaroga.

Hemiplegia is one of the most frequent clinical presentations of Cerebrovascular disease. Cerebrovascular Diseases include some of the most common and devastating disorders; Ischemic Stroke, Haemorrhagic Stroke and Cerebrovascular Anomalies such as Intracranial Aneurysms and Arterio-venous malformation.

In spite of the various treatment modalities available, Ayurveda may stand to be one of the most effective treatment methodologies for the best possible recovery in paralysis condition. Early intervention of Ayurveda treatment may maximize the recovery chances of paralysis condition.

The treatment guidelines for this condition have been widely enumerated in the classical texts of Ayurveda. For Vata Dosh, Snehana, Swedana, Mridu Samshodhana are selective therapies. Basti Karma is the ultimate treatment modality advised for Vatavyadhi. Charaka highlighted about Basti – "Basti Vataharanam Shreshtha".

The trial drug named Shwadranshtadi Taila is a very simple formulation, explained in Charaka Samhita for the management of Vatavyadhi. Shwadranshtadi Taila is made up of Shwadranshta, Aadraka, Guda, Go-Dugdha and Tila Taila. Shwadranshtadi Taila is used in

NiruhaBasti as well as AnuvasanaBasti. TilaTaila has been mentioned as prime Sneha of vegetable origin. TilaTaila has Ushna, Guru, Sukshma and Vatakaphashamakaproperties. Aadraaka has Guru, Ruksha, Tikshana and Ushnaproperties. Go-Dugdha possesses Guru, Snigdha, Mrudu, Bahal, Madhura Rasaand Madhura Vipaka. Go-Dugdhas Ojo Vardhana, Rasayana and Jeevaniya properties. Guda has Madhura Rasa, Madhura Vipaka, Vrushya and Mutrasodhaka properties. As all of the drugs have Brimhana property, it nourishes the Sira (veins), Snayu (muscles) and Kandara (tendons).

II. MATERIALS AND METHODS:

Collection of raw drugs:

Drugs for Shwadranshtadi Taila were obtained from Gujarat Ayurved University, Pharmacy and the drugs which were not available from the pharmacy of Gujarat Ayurved University were procured from local market of Jamnagar.

The final product i.e. Shwadranshtadi Tailawas prepared in the RSBK Laboratory, Rasashastra Dept., IPGT & RA, Gujarat Ayurved University, Jamnagar.

Table no. 1. The ingredients & parts used in the preparation of ShwadranshtadiTaila.

No.	Name	Latin Name	Part Used
1.	Shwadranshta	Tribulus terrestris Linn.	Seeds
2.	Aadraaka	Zingiber officinalis Roscoe.	Rhizome
3.	Guda	-	-
4.	Go- Ksheera	-	-
5.	TilaTaila	Sesamum indicumLinn.	Sesame Seeds

METHOD OF PREPARATION:

First the Kwatha of Gokshura was prepared. The cow's milk was collected fresh from a household just before the preparation of the Taila. TilaTaila was taken in stainless steel and placed over mild fire when fumes started, Taila was taken from fire and Kalka of Guda and Aadraaka was added and fried. Soon after Kwathawere added to vessel and boiled further with frequent stirring maintaining on mild temperature. After that Go-Dugdhas was added, Continue the process on mild heating till the observation of SnehapakaSiddhi Lakshana appeared. After obtained Snehapaka Lakshana, it was filtered in warm condition through

cotton cloth and allow to cool and then stored in a tightly closed containers to protect from light and moisture.

1) Pharmacognostical study:

The Pharmacognostical study comprises of Organoleptic study and Microscopic study of finished product.

➤ Organoleptic study:

The Organoleptic characters of Ayurvedic drugs are very important and give the general idea regarding the genuinity of the sample. It is done with the help of PanchagyanendriyaPariksha.

Table no. 2: The Organoleptic study of the ShwadranshtadiTaila.

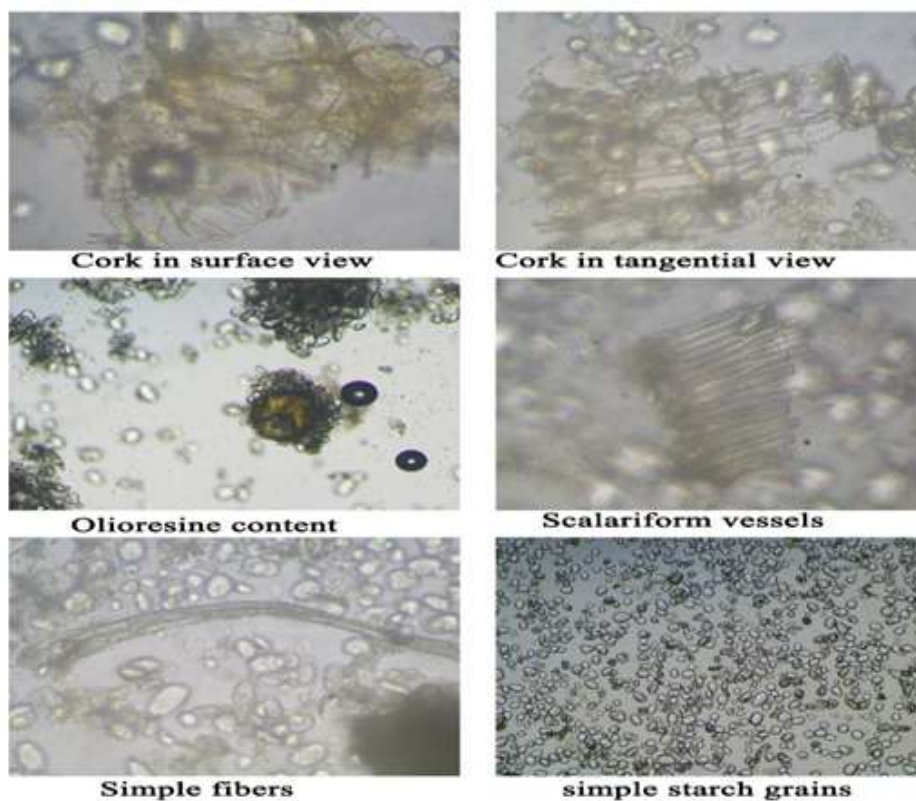
1	Color	Brownish golden
2	Odor	Aromatic
3	Taste	Sweet Astringent
4	Touch	Liquid, oily

Powder of the drug was studied microscopically and microscopic characters of the drugs were drowned.

Fig. 1 Microphotographs of Gokshura Seeds.



Fig. 2 Microphotographs of Aadraka.



2) Analytical Study

Table No-3: The physico-chemical parameters of Shwadranshtadi Taila are.

No.	Parameters/ Sample	Shwadranshtadi Taila
1.	Loss on drying	0.049% w/w
2.	Specific Gravity	0.9136 at room temp.
3.	Acid Value	4.84
4.	Saponification	87.801
5.	Iodine value	62.2
6.	Refractive Index	1.4830

High Performance Thin Layer Chromatography (HPTLC)

HPTLC was performed as per the guideline provided by API. Methanolic extract of drug sample was used for the spotting. HPTLC was

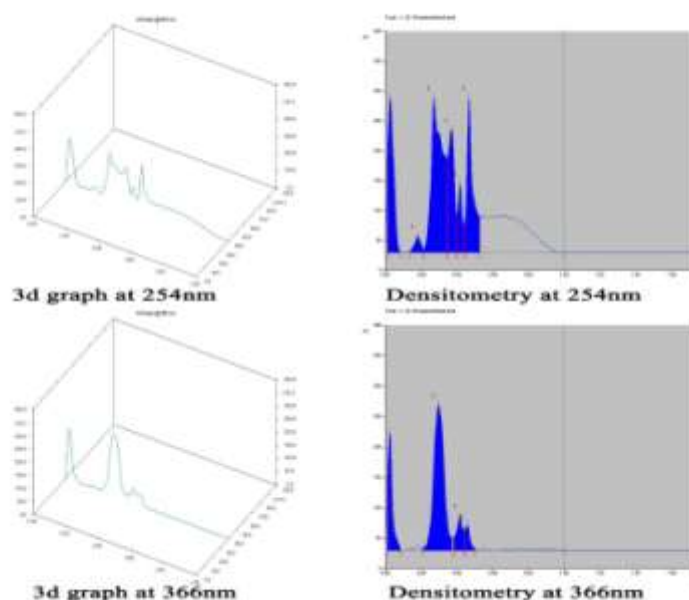
performed using Toluene+Ethylacetate+ Formic acid (7:2:0.5) solvent system and observed under visible light. The colour and Rf values of resolved spots were noted.

HPTLC STUDY:

Table No- 4: HPTLC profile/ Rf values of Shwadranshtadi Taila.

Wavelength	No. of Spots	Rf values
Short UV (254 nm)	6	0.03, 0.18, 0.27, 0.37, 0.42, 0.47.
Long UV 366nm	4	0.02, 0.30, 0.42, 0.46

Fig. No-3: 3d graph and Densitometry of Shwadranshtadi Taila.



III. DISCUSSION:

Standardization is a measurement for ensuring the quality control enabling the reproducibility of the formulation. Raw drugs were authenticated and analysed before processing because good quality products mainly dependent

upon genuine raw materials. The colour of Taila is brownish golden due to the presence of content like Guda and Gokshura. The odour is Aromatic like. Taste is sweet astringent. Pharmacognostical study reveals authentication of Shwadranshtadi Taila was cross verified with standard reference

API. Endosperm with oil, fibers of Gokshura, Oil globules, Spool cell of Gokshura seeds and Cork in surface view, Cork in tangential view, Olio-resine content, Scalariform vessels, Simple fibers, simple starch Grain of Aadraakaare observed under the microscope which were used as ingredients. All the physico-chemical parameters i.e. Loss on drying, Specific gravity, Acid value, saponification, Iodine Value, Refractive index were analyzed and found to be within the normal reference range. The physicochemical analysis showed Loss on drying (0.049% w/w), Specific gravity (0.9136) Acid Value (4.84), Saponification (87.801), Iodine value () and Refractive Index (1.4830). HPTLC profile of the methanolic extract of the drug showed 6 spots at 254 nm and 4 spots at 366 nm.

IV. CONCLUSION:

Quality control of Herbo-mineral formulation is very much necessary to assess its safety, purity and universal acceptability. Shwadranshtadi Taila mentioned in Ayurvedic text for the management of Vatavyadhis. Study based on various parameters results at conclusion that the Shwadranshtadi Taila have stable shelf life at room temperature. HPTLC results suggest the presence and incorporation of active constituents of herbal drugs into lipid formulations. For the prospective research, study will be helpful to the establishment of safety profile, efficacy and acceptance of classical Ayurvedic Taila formulation.

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