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EVALUATION OF SHAMAN YOGA (ANUBHUT) – AN AYURVEDIC COMPOUND FOR MENOPAUSAL SYMPTOMS

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ABSTRACT

Anubhuta drug *Shamana Yoga* includes *Shatavari* (*Asparagus racemosus* Willd), *Amalaki* (*Emblica officinalis* Gaertn), *Yashtimadhu* (*Glycyrrhiza glabra* Linn), *and Mukta Shukti* (*Mytilus margaritiferus*). All these drugs have *Madhura Rasa*, *Madhura Vipaka*, *Sheeta Virya* and *Pitta Shamaka* property. Here to cure the menopausal syndrome *Shamana Yoga* was taken. The present work was carried out to standardize the finished product *Shamana Yoga* to conform its identity, quality and purity. The pharmacognostical work of Mixture of *Shamana Yoga* reveals that presence of Annular crystal, Raphides, fiber, sclereides, sclereides in group, compound starch grain, parenchyma cell with starch grain, Tannin, Rhomboidal crystal, Stone cell, Stone cell in group, Lignified fiber, Crystal fibre, and Fragment of border pitted vessels had observed microscopically from Mixture of Shaman Yoga. Organoleptic features of *Shamana Yoga* made out of the crude drugs were within the standard range as mentioned in the classic. The pH value of SHAMAN YOGA was 5.5, Loss on drying(110˚c) was 0.419%w/w, Ash Value was 1.532% w/w, Methanol soluble extraction

was 4.683% w/w and High Performance Thin Layer Chromatography (HPTLC) at 254nm and 366nm resulted into 9 & 6 spots respectively.

KEYWORDS: Menopause, Pharmacognosy, Pharmaceutics, *Rajonivruti*, *Shamanayoga*, Standardization.

INTRODUCTION

Menopause is the natural phenomenon but when it get disturbed it produces symptoms related with vasomotor, psychological, urogenital, skeletal and cardiovascular system which causes discomfort to women that affects both the body and mind.[1] *Shatavari* (*Asparagus racemosus* Willd), *Amalaki (Emblica officinalis* Gaertn), *Yashtimadhu* (*Glycyrrhiza glabra* Linn), *and Mukta Shukti* (*Mytilus margaritiferus*) are the constituents in this formulation *Shaman Yoga*. *Shatavari* is perhaps best known as a female rejuvenative. Menopausal symptoms are relieved with the herb *Shatavari*. A study performed in several *Ayurveda* centres in the United States and in Nepal by Shrestha et. *al*. in 2003, showed the effect of estrogenic activity of *Shatavari*. It is widely used in bleeding disorders such as gastric ulcers, peptic ulcers and menorrhagia. *Amalaki* is having properties of *Rasayana, Vrishya, Vajikarana, Sarvadoshara, Vayasthapana, Raktapitta Shaman Yogana, PramehaShaman Yogana,* and *Panduhara*. It is used in *Kshaya, Pandu, Agnimandhya, Mutrakruchchhrahara, Raktapitta, Pittaja Shula, Chhardi* and *Vibandha*. *Yashtimadhu* is having properties of *Shukravardhaka, Keshya, Varnya, Vedanasthapana, Medhya, Rasayana, Shothahara, Trishnanigraha, Shonitasthapana, Mootravirajaneeya, Balya, Kandu Shaman Yogana, Jwarashamaka, Jeevaneeya, Sandhaneeya, Vatapittashamaka* & *Raktasthambhaka*. Muktashukti is having rich source of calcium with *Dipana, Pachana, Ruchya, ShulapraShamana properties.* Due to the selected drug having *rasayana, ojovardhaka, vata – pitta shamaka, hrudya, vatanulomaka, deepniya, balya* and *bruhniya* properties, we can used it in menopausal symptoms. The present work was carried out to standardize and evaluate the pharmacognostical as well as to analyze the physico-chemical properties of *Shamana Yoga.*

MATERIALS AND METHODS

Drug Material: Drugs used in *Shamana yoga* i.e. Powder of *Shatavari, Amalaki, Yashtimadhu* and *Mukta Shukti Bhasma* were prepared in the Pharmacy of GAU, Jamnagar. The ingredients and the part used are given in **(Table 1)**.

Method of Pharmacognostical evaluation

Raw drugs were identified and authenticated by the Pharmacognosy lab, IPGT&RA, Jamnagar. The identification was carried out based on the morphological features, organoleptic features and transverse section microscopy of the individual drugs. For pharmacognostical evaluation, drugs studied under the Corl zeiss Trinocular microscope attached with camera, with stain and without stain.[2] The microphotographs were also taken under the microscope.

Method of Preparation of the *Shamana Yoga*: Fine powder of *Shatavari*, *Amalaki* and *Yashtimadhu* each one part while *Mukta shukti* half part are mixed well to prepare the *Shaman yoga*.

Method of Physico-chemical evaluation

Shamana Yoga was analysed by using standard qualitative and quantitative parameters, HPTLC was carried out after making appropriate solvent system with Methanolic extract of *Shamana Yoga* at the Pharmaceutical Chemistry lab, I.P.G.T. & R.A. Gujarat Ayurved University, Jamnagar. Presence of more moisture content in a sample may create preservation problem. Hence loss on drying[3] was also selected as one of the parameters. Methanol soluble extract,[4] pH,[5] and Ash Value selected as the parameters. Organoleptical parameters, Physico-chemical analysis, investigations were carried out by following standard procedure. HiShaman Yoga Performance Thin layer chromatography (HPTLC) studies were carried out with acid hydrolysed methanolic extract on pre-coated silica gel GF 60254 aluminium plates as 5mm bands, 5mm apart and 1cm from the edge of the plates, by means of a Camag Linomate V sample applicator fitted with a 100 µL Hamilton syringe. The mobile phase used was Toluene: Ethyl acetate: Glacial acetic acid: Formic acid (5:5:1:0.5). The plates were developed in Camag twin trouShaman Yoga chamber (20 x 10 cm2) and spots were detected in short U.V. (254 nm), Long U.V (366nm). Camag Scanner II (Ver. 3.14) and Cats software (Ver. 3.17) were used for documentation.

RESULTS AND DISCUSSION

Pharmacognostical study

Microscopically evaluation is very important in the initial identification of ingredients as well as in the detection of adulterations**.** Identification of original drug is the first step to maintain the quality of the final product. The pharmacognostical work reveals that presence of Annular crystal, Raphides, fiber, sclereides, sclereides in group, compound starch grain, parenchyma

cell with starch grain, Tannin, Rhomboidal crystal, Stone cell, Stone cell in group, Lignified fiber, Crystal fibre, and Fragment of border pitted vessels had observed microscopically from fruit of *Terminalia chebula*. **(Figre 1 to 12)** All the ingredients were authenticated with help of characters mentioned in the API.

Organoleptic Study

Organoleptic evaluation was carried out to assess the color, odor and taste of *Shamana Yoga*. Organoleptic features of Shamana Yoga were observed like Fine in touch, Dark creamish in colour, Sweetish in odour, Saur and sweet in taste. Comparing API, brown coloured, fine preparation with odour of Yastimadhu; taste of Amalaki and yashtimadhu[6] were found**.** All parameters found as per API standards.

Physico-chemical Parameters

Standardization of herbal products is the need of time because of several reasons. Physico-chemical Parameters of the Shamana Yoga like loss on drying, methenol soluble extract etc. were examined. **(Table 2)**

The total ash is particularly important in the evaluation of purity of drugs, i.e. the presence or absence of foreign matter such as metallic salts or silica.[7][8][9] Analytical results showed total ash value[10] for *Shaman Yoga* was 1.532% w/w. The alcohol soluble extractive values indicated the presence of polar constituents like phenols, alkaloids, steroids, glycosides, flavonoids.[11] The alcohol soluble extractive[12] value In *Shaman Yoga* was 4.683% w/w, which signifies the superiority of *Shaman Yoga*. Deterioration time of the plant material depends upon the amount of water present in plant material. If the water content is high, the plant can be easily deteriorated due to fungus.[13] The loss on drying[14] at 110°C was O.419% w/w. The pH[15] from 10% w/v solution revealed that pH of *Shaman Yoga* was 5.5.

HPTLC study results

On performing HPTLC, visual observation under UV light showed few spots but on analysing under densitometer much more was observed and at 254nm the chromatogram showed 9 peaks, at 366nm the chromatogram showed 6 peaks **(Table 3)**. Nine peaks found at Rf value 16.38, 1.54, 25.85, 7.71, 6.03, 1.05, 4.35, 14.39 and 22.58 in 254 nm wavelength while six peaks found at Rf value 22.0, 14.46, 11.6, 12.42, 16.98 and 17.54 in 366 nm wavelength.**(FIGURE 13,14)** HPTLC could not assess according to standards as the parameter not mentioned in API for the drug.

Table 1: Ingredients of *Shamana Yoga.*

Content	Latin name	Part used	Ratio
Shatavari	*Asparagus racemosus* Willd.	Root (powder)	1 gm
Amalaki	*Emblica officinalis* Gaertn.	Dried Fruit (powder)	1 gm
Yashtimadhu	*Glycyrrhiza glabra* Linn.	Root (powder)	1 gm
Mukta Shukti Bhasma	*Mytilus margaritiferus*	*Mukta-Shukti*	500 mg

Table 2: Chemical Analysis of *Shamana Yoga.*

No.	Name of the Test	Present Study
1.	Loss of drying (at 110^{o}c)	O.419% w/w
2.	Ash Value	1.532% w/w
3.	Methanol soluble extraction	4.683% w/w
4.	pH value by pH paper	5.5

Table 3: Thin layer chromatography of *shamana yoga.*

UV-254nm		UV-366nm	
No. of Spot	**Rf Value**	**No. of Spot**	**Rf Value**
1	16.38	1	22.0
2	1.54	2	14.46
3	25.85	3	11.6
4	7.71	4	12.42
5	6.03	5	16.98
6	1.05	6	17.54
7	4.35		
8	14.39		
9	22.58		

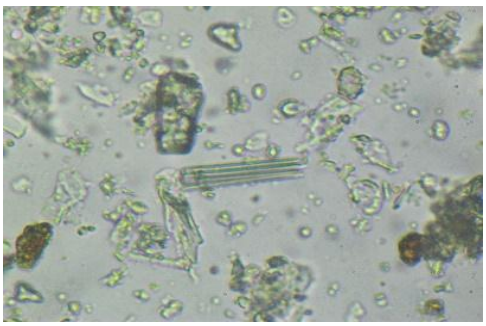

Figure 1: Annular crystal.

Figure 2: fiber.

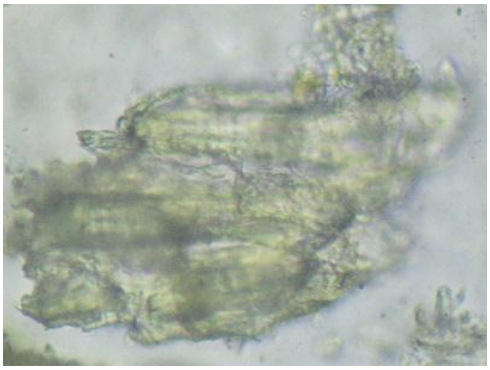

Figure 3: Sclereides.

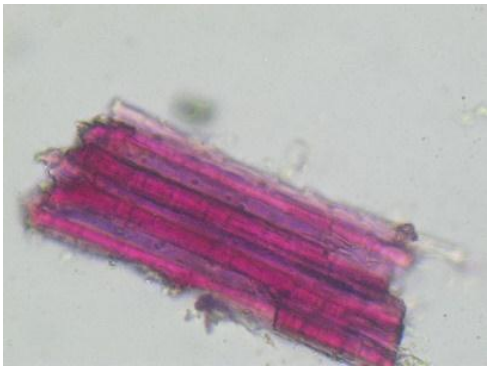

Figure 4: Sclereides in group.

Figure 5: Parenchyma cell with starch grain.

Figure 6: Tannin.

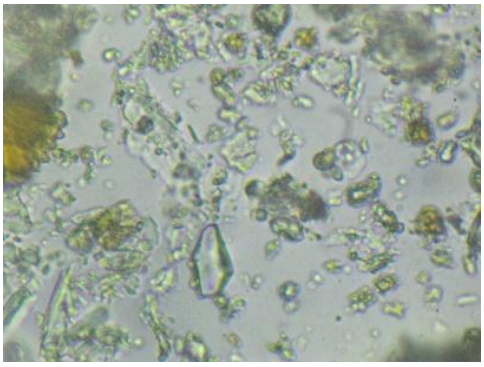

Figure 7: Rhomboidal crystal.

Figure 8: Stone cell.

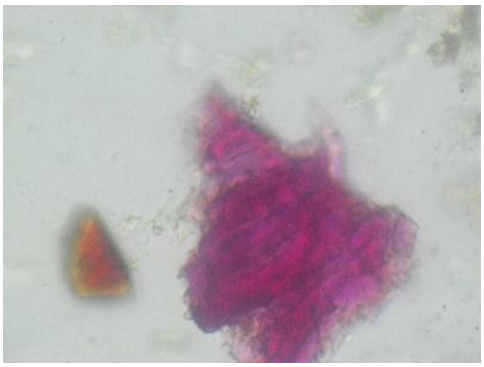

Figure 9: Stone cell in group.

Figure 10: Lignified fiber.

Figure 11: Crystal fibre.

Figure 12: Fragment of border pitted vessels.

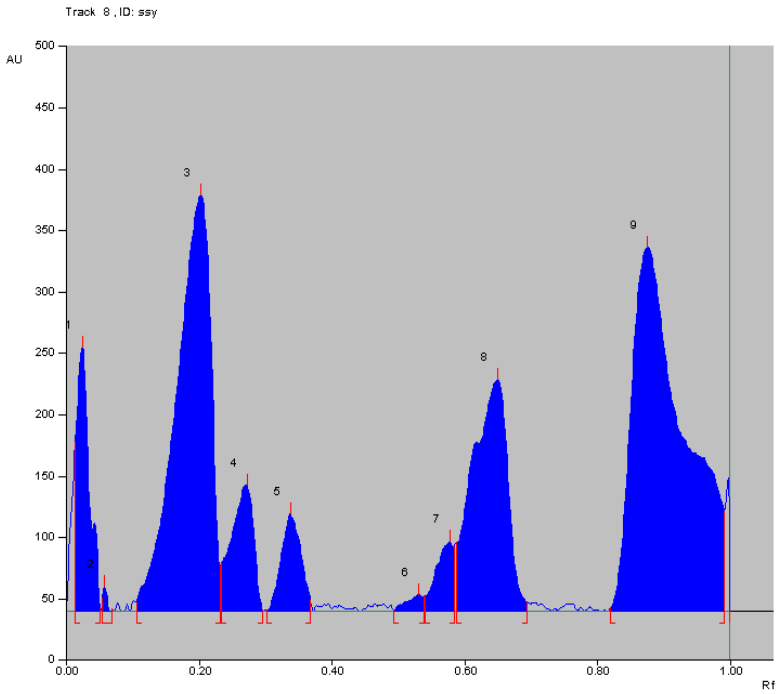

Figure 13: Thin layer chromatography of *Shamana Yoga* at UV-254nm.

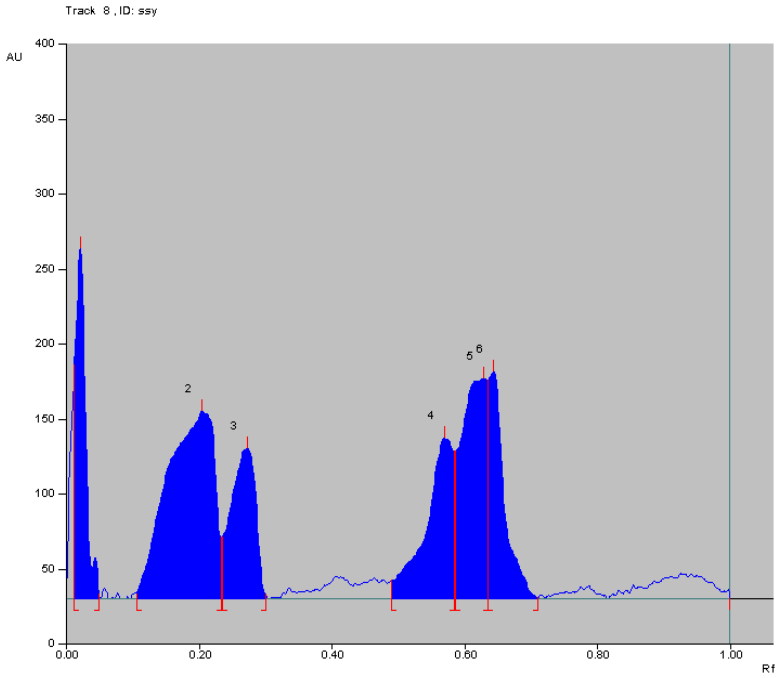

Figure 14: Thin layer chromatography of *Shamana Yoga* at UV-366nm.

CONCLUSION

Shamana Yoga is a potent medicine in the management of disease Menopausal Symptoms. Preliminary the morphological features, organoleptic features and powder microscopy of the individual drugs results confirm the genuinity and no adulterants found. For authantification, all the ingredients were compared with the parameters mentioned in API (Ayurvedic Pharmacopeia of India). Phyto-chemical analysis had assessed but still need validation through repeated experiment on different batches with quantity of ingredients. These groundwork requisites for the standardization of *Shaman Yoga* are covered in the current study, additional important analysis and investigations are required for the identification of all the active chemical constituents of the test drug to substantiate the clinical efficacy.

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