

**DETAILED INGREDIENTS IDENTIFICATION AND PRELIMINARY
PHARMACEUTICAL ASSAY OF *TRIPHALA TAILA*****Upexa K. Bhimani^{*}, Jay R. Mordhara^{**}, Harisha C. R.^{***}, V. J. Shukla^{****}**^{*}Dept. of Stree Roga and Prasooti Tantra,^{**}Dept. of Basic Principles,^{***}Dept. of Pharmacognosy,^{****}Dept. of Pharmaceutical Chemistry, I.P.G.T and R.A., GAU, Jamnagar, Gujarat, India.

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Prasooti Tantra, I.P.G.T and
R.A., GAU, Jamnagar,
Gujarat, India. 361 008.**ABSTRACT**

Uterine fibroid is not only the commonest benign tumours of the uterus but it is commonest solid pelvic tumour in women. It is commonest solid tumour in female found in approximately 20 to 40% women. Myomectomy and hysterectomy is only answer provided by the modern stream but it has created newer health issues. So, in present study *Virechana Karma*, *Uttar Basti* and *Shamana Yoga* were selected for the management of *Garbhasaya Arbuda* (Uterine fibroid). *Triphala Taila* in which *Eranda Sneha* use as *Sneha Dravya* work as local *Lekhana karma* of fibroid. The present evaluation done for the standardisation of *Triphala Taila* through the pharmacognostical and

pharmaceutical standards. Obtained *Triphala Taila* was Yellowish Brown in colour, dark in appearance, and slippery in touch and having characteristic odour. For *Triphala Taila* Specific Gravity (At room Temperature) was 0.94, Refractive Index (At room Temperature) 1.49, Iodine value (w/w) 27.008, Acid value (w/w) 12.5, Saponification value (w/w) 190. HPTLC of *Triphala Taila* were carried out after organizing appropriate solvent system showed 6 spots at 0.02, 0.05, 0.06, 0.08, 0.15 and 0.26 Rf values under 254 nm and showed two spots at 0.02 and 0.31 Rf values under 366 nm.

KEYWORDS: Pharmacognosy, Physicochemical analysis, Uterine fibroid, *Triphala Taila*.

INTRODUCTION

Women's health issues include menstrual, contraception, maternal health, child birth, menopause, uterine fibroid, breast cancer etc. Among these, uterine fibroid have got an important place. Uterine fibroid is not only the commonest benign tumour of uterus but also the commonest solid tumour in female. According to the National Institutes of Health (NIH), about 70 to 80 % of women have them by the age of 50^[1], one in every five women of childbearing age suffers from uterine fibroids^{[2][3]}. The myomectomy and hysterectomy is only answer provided by the modern stream but it has created newer health issues. In modern medicine there is no other treatment modality to cure the Uterine fibroid. So, in present study *Virechana Karma*^[4], *Uttar Basti*^[5] and *Shamana Yoga* were selected for the management of *Garbhasaya Arbuda* (Uterine fibroid). *Triphala Taila* work as local *Lekhana Karma* of fibroid and it is mentioned as special treatment of *Yoni Vyapada* in Ayurveda^[6]. The present evaluation done for the standardisation of *Triphala Taila* through the pharmacognostical and pharmaceutical standards. Organoleptic features of *Triphala Taila* were within the standard range. HPTLC were carried out after organizing appropriate solvent system.

MATERIAL AND METHOD

Collection and authentication of raw drugs

The raw drug material *Haritaki*, *Bibhitaki*, *Amalaki*, and *Eranada Taila* (Castor oil) were obtained from Pharmacy of Gujarat Ayurved University GAU Jamnagar

Method of Preparation of *Triphala Taila*

Triphala Taila was prepared as mentioned in *Sharangdhara Samhita*^[7].

Kalka Dravya: 250 gm

Drava Dravya: *Triphala Kwatha* 6000 ml

Sneha Dravya: *Eranada Taila* 1500 ml

Pharmacognostical Evaluation

Morphological, organoleptic and microscopic evaluation of *Triphala Taila* ingredients were conducted at Pharmacognostical laboratory of institute. Individual powder were dissolved in small quantity of distilled water and studied with and without staining. Micro photographs of the slides were taken with Carl Zeiss microscope attached with camera^{[8][9]}.

Physico-chemical Evaluation

The *Triphala Taila* were analysed by using standard qualitative and quantitative parameters at pharmaceutical laboratory of institute according to Protocol for Testing of Ayurvedic, Siddha and Unani Medicine^[10] of *Sneha kalpana* for Specific Gravity, Refractive Index, Iodine value, Acid value, Saponification value (Table 2). HPTLC were also performed.

HPTLC of *Triphala Taila*

This was achieved on HPTLC plates using Hexane: Di ethyl ether (7:3, v/v) as a mobile phase. In HPTLC of S, under 254 nm showed six major spots at 0.02, 0.05, 0.06, 0.08, 0.15 and 0.26 Rf values and under 366 nm showed two spots at 0.02 and 0.31 Rf values.

OBSERVATION AND RESULTS

Pharmacognostical Study

Organoleptic characters of *Triphala Taila*

The *Triphala Taila* was Slippery in touch, Yellowish brown in colour, and had Characteristic Odour. The result obtained are tabulated in table 1.

Table 1: Organoleptic characters of *Triphala Taila*

Properties	<i>Triphala Taila</i>
Colour	Yellowish brown
Odour	Characteristic
Appearance	Dark
Touch	Slippery

Microscopical analysis of *Triphala Taila*

The characteristics observed under microscope were as per Plate 2.

Physico-chemical parameter of *Triphala Taila*: The results of Physico-chemical parameter of *Triphala Taila* obtained are tabulated in Table 2.

Table 2: Physico-chemical parameter of *Triphala Taila*

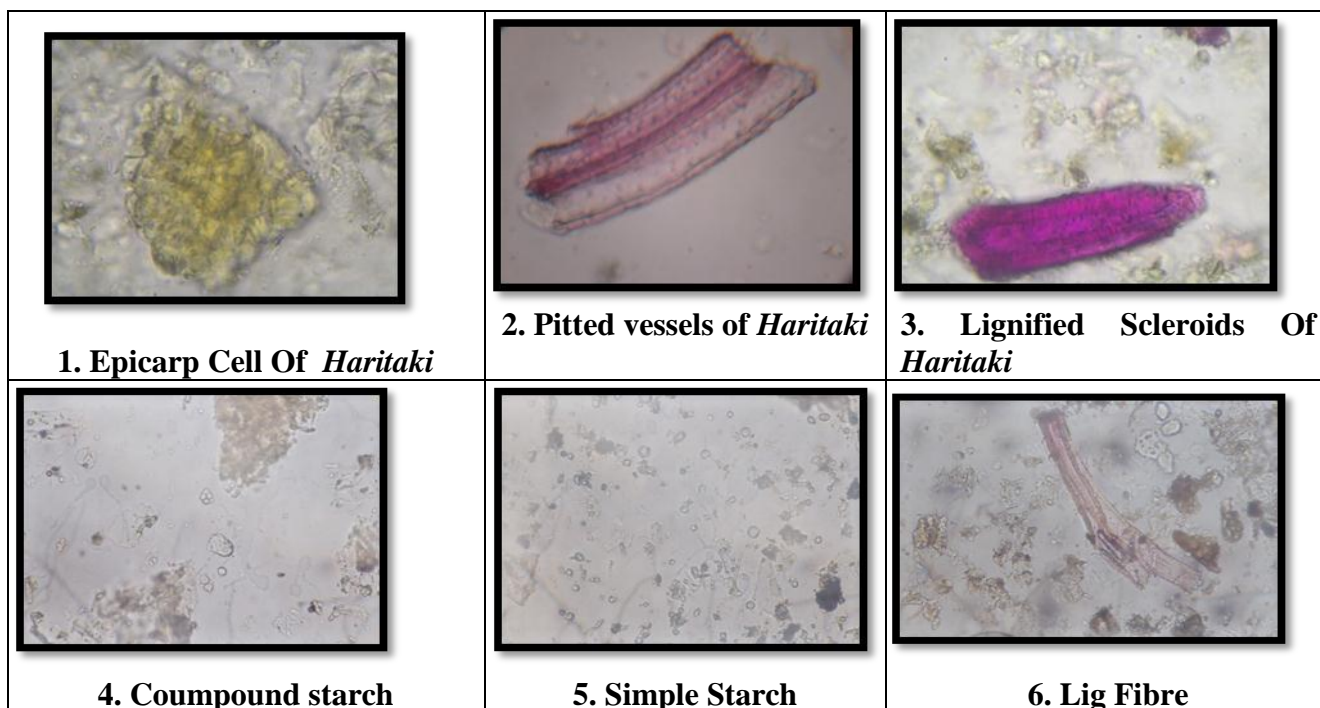
No.	Name of the Test	Value
1.	Specific Gravity (At room Temperature)	0.94
2.	Refractive Index (At room Temperature)	1.49
3.	Iodine value (w/w)	27.008
4.	Acid value (w/w)	12.5
5.	Saponification value (w/w)	190

High Performance Thin Layer Chromatography of *Triphala Taila*:

HPTLC under 254 nm showed six spots at 0.02, 0.05, 0.06, 0.08, 0.15 and 0.26 Rf values and under 366 nm showed two spots at 0.02 and 0.31 Rf values. Table 5

Table 3

UV-254nm		UV-366nm	
No. of Spot	Rf Value	No. of Spot	Rf Value
1	0.02	1	0.02
2	0.05	2	0.31
3	0.06		
4	0.08		
5	0.15		
6	0.26		

**Plate 1****1. Epicarp Cell Of *Haritaki*****2. Pitted vessels of *Haritaki*****3. Lignified Scleroids Of *Haritaki*****4. Coumpound starch****5. Simple Starch****6. Lig Fibre**

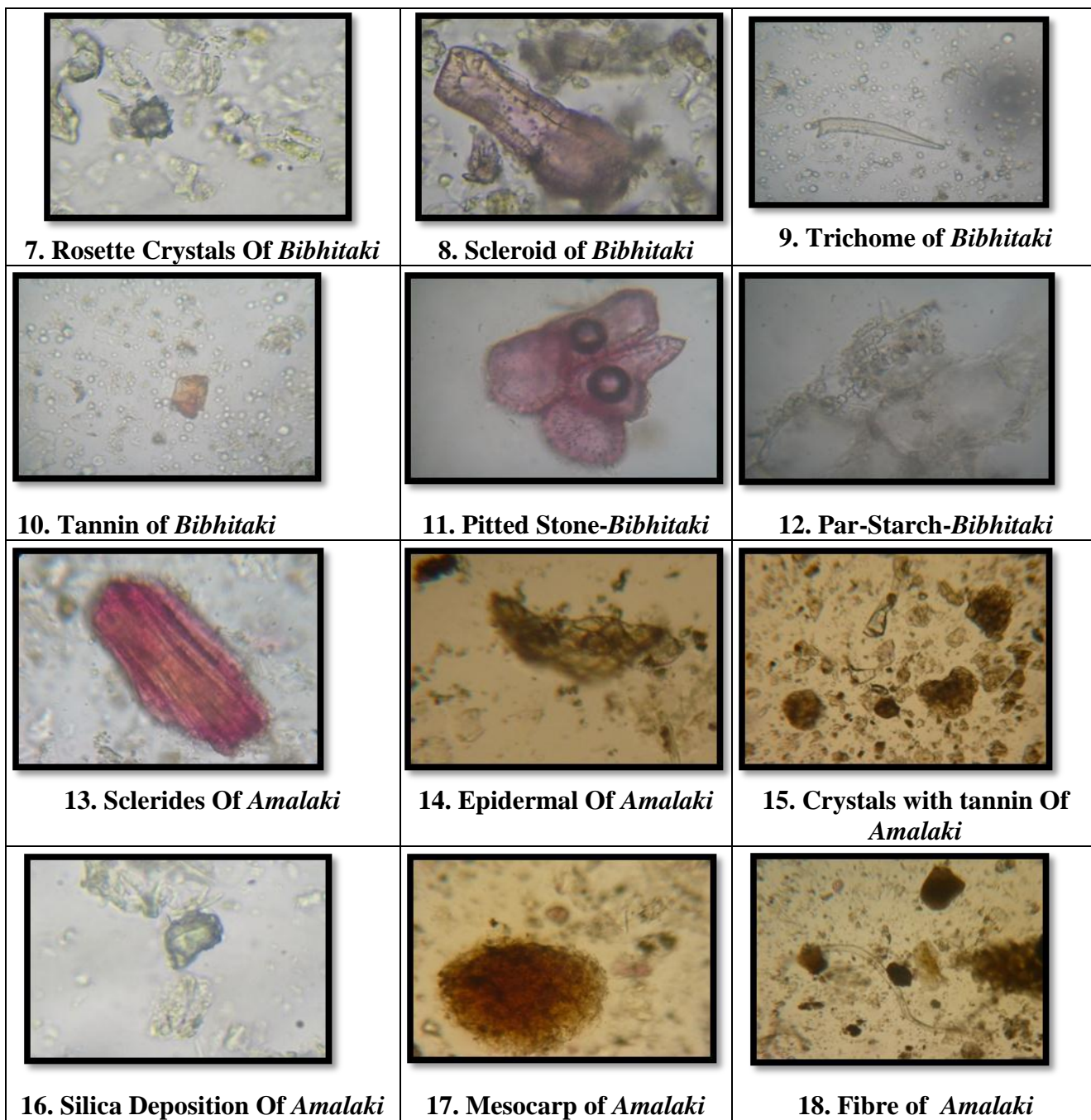


Plate 2

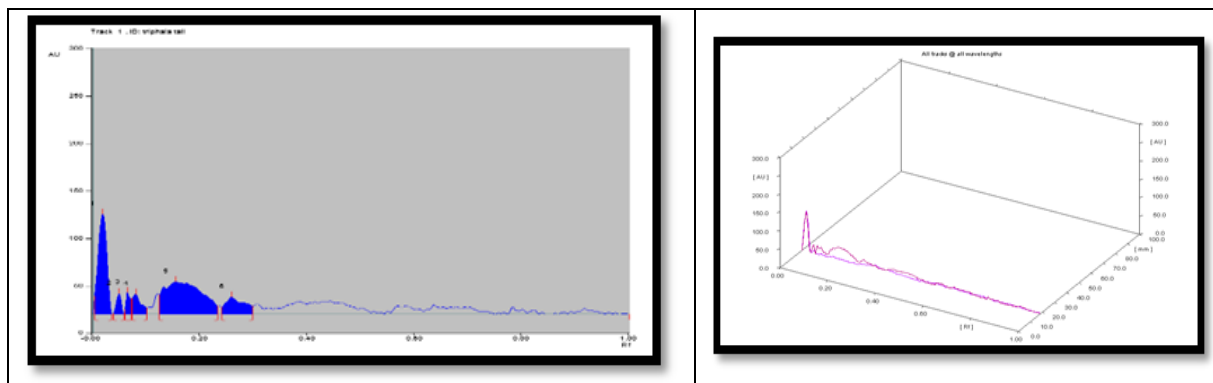


Plate 3 HPTLC of *Triphala Taila* at 254 and 366nm and 3D Graph

DISCUSSION

Fibroid is a burning problem among the Gynaecological disorders in present era. Modern science has no appropriate answer to this disease. In this study *Triphala Taila (Anubhuta) Uttara Basti* is used in the management of Uterine Fibroid. *Uttara Basti* is the best treatment of *Yoni Vyapada*. *Uttara Basti* with *Triphala Taila* do *Lekhana Karma* and gives scrapping effect. It may also stimulate certain receptors in the endometrium, leading to correction of all the physiological processes of reproductive system. *Triphala* has *Kapha-Pitta Shamaka* property by which it normalized the function of *Dosha*. It possess *Lekhana, Shothahara, Vednasthapana* action by this it removes *Shotha* from the wall of the uterus. *Eranda Taila* which was used in *Uttara Basti* removes *Avarana* of *Kapha* on *Vata*^[11]. By this its help in relieving pain in lower abdomen, Dysmenorrea, etc. *Main factors behind all the symptoms mentioned above are Ama, Kapha, Vata and Meda Dusti.*

The present standardisation of *Triphala Taila* through Pharmacognostical, pharmaceutical and phytochemical analysis is done for setting a preliminary profile for further references.

As this single drug preparation is tried for first time, so the pharmaceutical and pharmacognostical analysis is required for the authenticity of drug. Pharmacognostical study of *Triphala Taila* showed Characteristic feature under microscope were Epicarp cell, Pitted vessels, Lignified Scleroids, Compound starch, Simple starch, Lig fibre of *Haritaki*^[12]. Rosset crystal, Tenin, Pitted stone, Par starch, Trichome and Scleroids of *Bibhitaki*^[13]. Epidermal, Scleroid, Silica deposition, Stone cell, Mesocarp, Crystal with tannin and Fibers of *Amalaki*^[14]. (Plate 2)

CONCLUSION

Pharmacognostical and Phyto-chemical evaluation of *Triphala Taila* showed the specific characters of ingredients which were used in the preparation, there is no major change in the microscopic structure of the drug during the pharmaceutical processes of preparation of *Taila*. All the Pharmaceutical parameters analysed within the allowable range and it may be used as standard reference for further research work and clinical studies.

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