Bulletin of Environment, Pharmacology and Life Sciences
Bull. Env. Pharmacol. Life Sci., Vol 11 [3]February 2022 : 83-86

Online ISSN 2277-1808
Journal's URL:http://www.bepls.com
CODEN: BEPLAD

ORIGINAL ARTICLE **OPEN ACCESS**

Physicochemical Analysis and Drugs Standardization of Panchkashaya Yoni Varti

Sonali P Patel[1], Manjusha Karkare[2]
PG Scholar[1], [2]Professor & HOD, PTSR Department, Parul Insitute of Ayurveda, Parul University, Limda, Vadodara, Gujarat, India
Correspondence Email: mrkarkare@gmail.com

ABSTRACT
Varti kalpana is one of the important treatment modalities for managing vaginal discharges. The present study was aimed at standardization of Panchkashay yonivarti. Panch Kashaya yonivarti is herbo-mineral ayurvedic formulation used as a vaginal suppository in the case of Kaphaja Yonivyapad .The present work is carried out to standardize the finished product of panchkashaya yonivarti. The ingredient of panchkashaya yonivarti is vacha, vasa, patola, priyangu and nimba. Drug was analyzed for following parameters like physico-chemical (loss on drying, acid soluble, total ash, pH, disintregration) and High performance thin layer chromatography (HPTLC). On the basis of observations and experimental results, the study may be used as standard protocol in the further quality control researches on Panchkashaya yonivarti.
Keywords: HPTLC, Panchkashaya yonivarti, standardization

Received 12.11.2021 Revised 17.01.2022 Accepted 24.01.2022

INTRODUCTION

Panch Kashaya yonivarti contains vacha, vasa, patola, priyangu, nimba. Yonivarti is pharmaceutical preparation which comes under modification of vati Kalpana. The drugs vacha, vasa, patola, priyangu, nimba have been used in formulating yonivarti. All the dravyas have tikta Kashaya rasa, laghu ruksha guna and katu vipak due to which the Varti is Kapha Shamak in nature. Insertion of yonivarti is a practical procedure which is performed for curing vaginal discharges. Yonivartis are meant for insertion in the vagina, for the purpose of removal of accumulated dosha at local site, for reducing vaginal discharge, foul smell and pain. It is one of the upakramas of sthanika chikitsa in Ayurved . Panch kashaya yonivarti having properties like vrana sodhana, kledahara, krimighna, kandughna was selected for clinical studies and was found to be effective in providing symptomatic relief. Absence of recurrence was also an important clinical finding [1]. Analytical studies were performed as a measure of quality control and standardization of finished product [2]. The objective of the study was to standardize the Panchkashaya Yonivarti prepared for clinical studies on the basis of organoleptic and Physico-chemical parameters.

MATERIAL AND METHODS

Collection, Identification and Authentication of Raw Drugs:

The raw Drugs for the study were procured from the G Y HAKIMS, Vadodara. The ingredients were identified and authenticated in the department of Drvaya Guna, Parul institute of Ayurveda and Hospital, Limda, Vadodara. The ingredients and part used and proportion are listed in (Table 1) below.

Table 1 Ingredients of Panchakashaya Yonivarti

Name	***B.N.***	***Family***	***Part use***	***Part***
Vacha	*Acorus calamus*	*Acoraceae*	*Rhizome*	*1 part*
Vasa	*Adhatoda vasika*	*Acantheceae*	*leafe*	*1 part*
Patola	*Trichosanthesdioica*	*Cucurbitaceae*	*fruit*	*1 part*
Priyangu	*Calicarpa marcophylla*	*Verbenaceae*	*root*	*1 part*
Nimba	*Azacardia indica*	*Maliaceae*	*leafe*	*1 part*

Preparation of Medicine :

Preparation of panchakashaya kwath :

The ingredient of panchakashaya yonivarti -Vacha,vasa, patola ,priyangu , Nimba were taken 500gm in yavakuta (Coarse powder) form and 4 L clean water was added into it and allowed to soak 14 h overnight in normal room temperature. On the next day morning ,the mixture was mildly heated until the volume reduced to 1/4th , i,e. up to 1L.Throughout the procedure of boiling ,the temperature was maintained in between 85°C and 95°C and approximately it took 5h to prepare kwatha.

Table 2: Details of kwatha preparation :

Quantity of kwath (g)	500
Size of kwatha churna (mesh no)	08
Total quantity of water (L)	4
Total time for soaking (h)	14
Temperature during preparation of kwatha (c)	85-95
Total time taken for kwatha (h)	4.45
Total quantity of kwatha obtained (ml)	1000

Preparation of Panchkashaya yonivarti :

1 L Panchkashya kwath was taken in stainless steel vessel. It was heated on boiling water until melted into homogeneous mixture .The kwath was filtered and heated in a waterbath for further evaporation. The semisolid material obtained after evaporation was then stirred over moderate flame to prepare ghana of madhyam khanda consistency. The ghan was then manually rolled into oval shaped varties weighing 3 gram each. They were than dried in shade and packed in ziplock pouches.

RESULTS

Analytical Study:

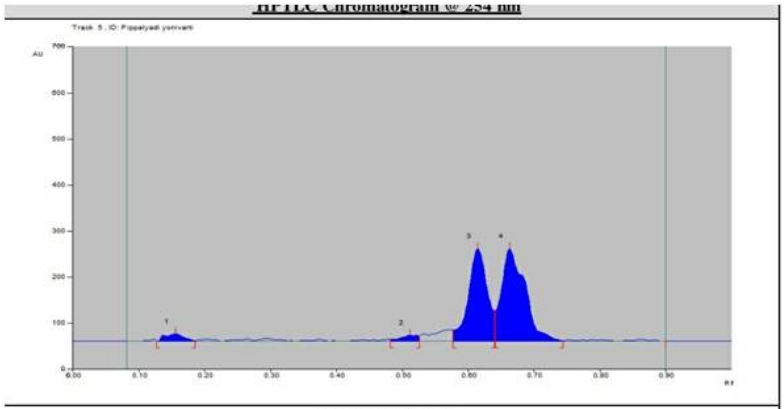
The physico-chemical parameters of the Panchkashaya varti were analysed at pharmaceutical chemistry laboratory of Parul institute of Ayurved, Vadodara. All Physico-chemical parameters such as Loss on drying, Total ash, Acid soluble ash, pH, Disintigration time as per ayurvedic pharmacopeia of India were considered for pharmaceutical evaluation.

Table 3: Results of organoleptic and Physico-chemical parameters of Panchkashaya yonivarti

Parameters	**Results :**
Colour	Dark brown
Odour	Characteristic
Taste	Kashaya ,Tikta
Consistency	Hard
Loss on drying	8
Total ash	9.5
Acid insoluble ash	8.2
Disintegration time (min)	More than 45 min
pH	6.0

High Performance thin layer chromatography (HPTLC)

2.5 gram of powdered sample of varti was taken in Iodine flask 50 ml Methanol were added to it. the Iodine flask was Vortexed for 1 hr to dissolve & warmed the sample . The solution was filtered with whatman paper and syringe filter to obtained a filtrate. The 4,8,and 12l of the above filtrate were applied on pre -coated silica gel F254on Aluminium sheets to a band width of 10 mm using Linomate 5 TLC applicator. The plate was developed in Toluene; Ethyl acetate : Acetic acid (7:2:1).The developed plates were visualized in UV .The developed plates were visualized in 254nm,366nm,540nm and than derivatised using Anisaldehyde sulphuric acid reagent and CAMAG Dip tank. Rf colour of the spots and densitomentry scan were recorded.

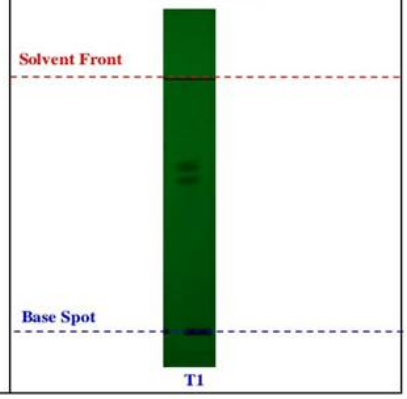


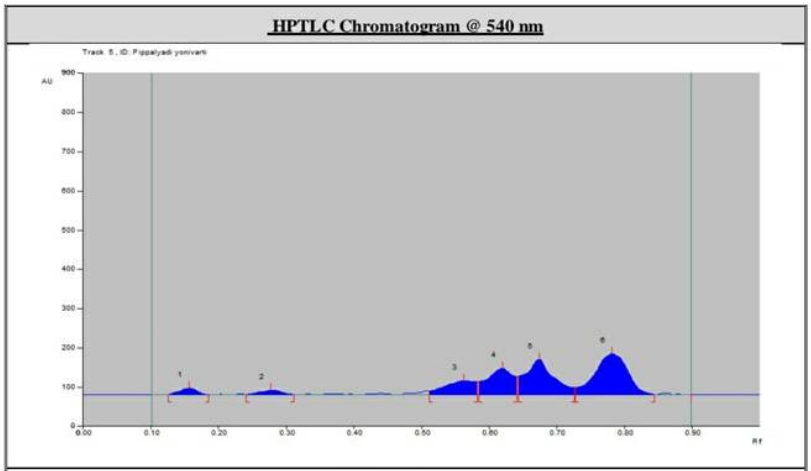
2D chromatogram

R_f value

Spot No.	Track T1
1	0.16
2	0.51
3	0.61
4	0.66

Track T1: Yonivarti



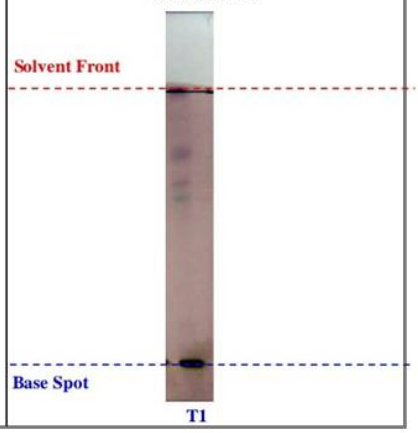


2D chromatogram

R_f value

Spot No.	Track T1
1	0.16
2	0.28
3	0.56
4	0.61
5	0.66
6	0.78

Track T1: Yonivarti



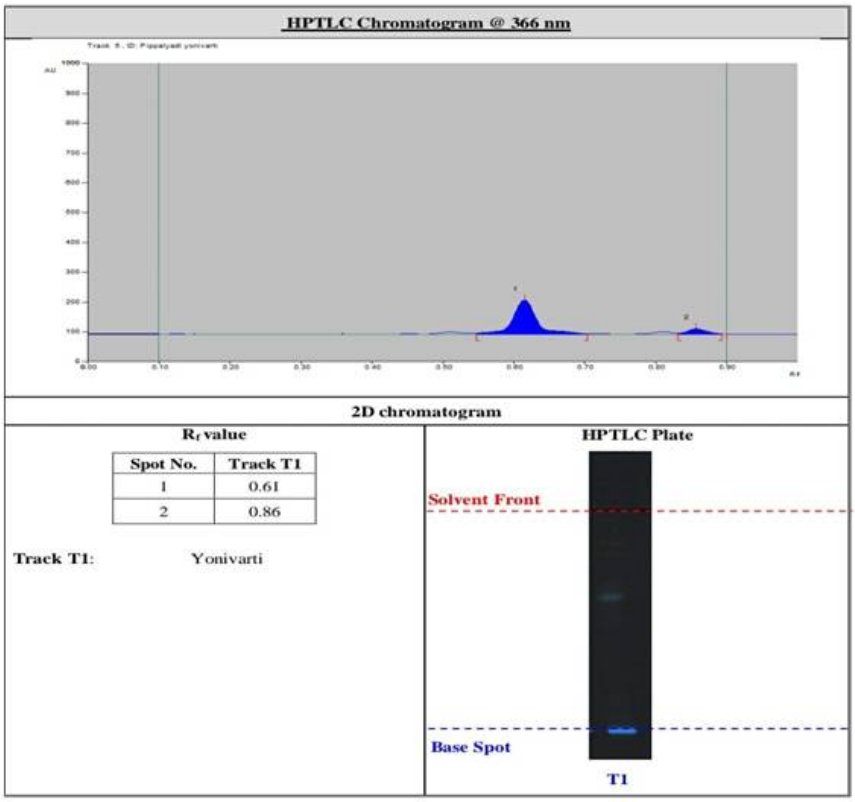


Fig. 1, 2, 3 HPTLC Chromatograms of Formulated Yonivarti

DISCUSSION

The varti proved to be safe and effective in clinical studies. The analysis of a clinically proven drug is a valuable resource for future reference. Standardization of varties can contribute to quality control and detecting adulteration [3].

CONCLUSION

The method of preparation mentioned in the current study for panchkashaya yonivarti can be considered as a standard as, organoleptic, physico-chemical evaluation of panchakashaya yonivarti illustrated the specific characters of all the ingredients which were used in preparation .Standardization and development of reliable protocol for quality control of ayurvedic formulation using modern techniques of analysis are the need of the day. The current study can be used as a reference standard for future studies in Panchakashay Varti.

REFERENCES

1. Yadav, S. S., Patgiri, B. J., Shukla, V. J., & Prajapati, P. K. (2011). Standardization of Shirishavaleha with reference to physico-chemical characteristics. *Ayu*, *32*(4), 560.
2. *Bulusu Sitaram , Bhavpraksh madhyamkhanda chikitsa; Chaukhamba orientaliya chp.70; sloka no70/43, 695.*
3. https://www.researchgate.net/publication

CITATION OF THIS ARTICLE

Sonali P Patel, Manjusha Karkare. Physicochemical Analysis and Drugs Standardization of Panchkashaya Yoni Varti. Bull. Env. Pharmacol. Life Sci., Vol 11[3] Feb 2022 : 83-86.