

STUDIES ON STANDARDISATION OF TRIBHUVANAKIRTI RASA

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ABSTRACT: The drug standardization project functioning at IADR, Tarikhet has carried out chemical studies and other investigations on Tribhuvanakirti rasa a commonly used medicinal preparation in current practice, these studies are presented in this paper.

Introduction:

The most efficacious herbomineral ayurvedic drug Tribhuwankirti rasa is widely prescribed by physicians for the treatment of various ailments due to imbalance of vata, kapha and

jwara in the body¹. It is useful in the treatment of different types of jwara especially sannipata, this preparation is one of the most effective classical formulations used in various kind of fever, coryza cough and cold.

Ingredients Used:

S. No	Ingredients used	Botanical Name	Part Used	Quantity used
1.	Suddha Vatsanabh	Aconitum chasmanthum Stapf	Root	25gm.
2.	Shunthi	Zingiber officinale Rosc	Root	25gm.
3.	Maricha.	Piper nigrum Linn	Fruit	25gm.
4.	Pippali	Piper longum Linn	Fruit	25gm.
5.	Pippalimula	Piper longum Linn	Root	25gm.
6.	Suddha hingula	--	--	25gm.
7.	Suddha Tankana	--	--	25gm.
8.	Tulsi Kvatha	Ocimum sanctum Linn	Whole plant decoction	70gm
9.	Tulsi Kvatha	Ocimum sanctum Linn	--	--
	Yield (after bhawana) of Tulsikvath			175gm
10.	Sample taken for precessing with Adrak (svarasa)			

	Zingiber officinale bhawana		175gm
	Total quantity of Ardrakswarasa taken for bhawana		80ml
	Yield (After bhawana) with Ardrak svarasa		180gm
11.	Sample taken for precessing with Dhatura (Kvath) Dhatura metal Linn (bhawana)		160gm
	Total quantity of Dhatur Kvath (leaf decoction for the bhawana)		90ml
	Yield (After bhawana) with Dhatur Kvath		165gm
12.	Sample taken for precessing with Nirgundi Kvath (Vitex negundo Linn)		145gm
	Total quantity of Nirgundi Kvath leaf decoction for the bhawana		100ml
	Yield (After bhawana) with Nirgundi svarasa final product.		150gm

Ingredients and Method of preparation

The method of preparation was as described in Rasamratam, Chapter 9: 80-801/2¹ authentic herbal ingredients shunthi (Zingiber officinale Rosc); Maricha (Piper nigrum, Linn); Pippali (Piper longum Linn) and vatsanabh (roots a Acontium chasmanthum stapf) tested botanically were used Hingula (Mercuric sulphide), tankan (Borax) and vatsanabh (roots of Aconitum chasmanthum stapf.) were purified as per Ayurvedic Formulary of India.¹

Fine powders of the item no 1 to 7 were mixed thoroughly and successive bhawana were given one by one with Tulsipatra kvath Ardrak svarasa, Dhaturapatrakvatha and Nirguvdi patra kvath, for chemical analysis 20gm of sample was withdrawn after giving each bhavana. The final product was dried under shade.

Experimental:

a) Identification of Hingula:

The sample was digested with aquaregia, diluted with water and filtered. From the filterate mercury was determined by sulphide precipitation² and mercuric sulphide was calculated.

b) Identification of Borax:

Chemically, tankan is dehydrated borax. This was estimated according to the method prescribed in British pharmacopoeia.

c) Identification of Vatsanabha:

The feebly toxic roots are commonly employed as a tonic and febrifuge and in diarrhea, dyspepsia and cough.⁴ The Indian aconites were classified according to their root structures by stapf⁵. Acontium chasmanthum stapf which was used in the preparation contains 4.3% ether soluble diterpene alkaloid-Indaconitine, was applied to TLC using silica G (Merck, 350 mesh) along with Tribhuwankirti Rasa. Solvent system used was Isopropanal; Methanol; 23% ammonium hydroxide (34:24:1)⁶. The plates were dried and sprayed by freshly prepared

Dragendroff's reagent. The distinct spot Rf-0.86 of purified A Chasmanthum and that of tribhuwankirti Rasa Rf-0.86 confirmed to

presence of alkaloid and presence of vatsanabha in the preparation.

Details of Analytical findings of Tribhuwankirti Rasa

Data determined	Tribhuwankirti Rasa Final product
Colour Lovibond Scale	Dull yellow/orange (dullness 1 OR, Y,B each)
Smell	Faint
Tough	Fine
Taste	Acrid
Total ash content (%)	15.81
Mercury content (%)	10.21
Sulphur content (%)	1.93
Borax (as Na ₂ B ₄ O ₇) (%)	9.77
Total Borax content in sodhit Bored (%)	94.82
Total oil content (%)	0.30
Total alkaloid content (%)	0.02
Alkaloid content in the sodhit vatsanabh (%)	1.82
Loss on drying at 110°C (%)	13.20
pH of 1% W/V extract at 24°C	8.40

Result and Discussion:

All the samples were analysed for organoleptic characters and total percentage of ash, mercury, sulphur, borax, alkaloids and oil contents, before and after bhawana. No change in oil contents indicated the use of fresh ingredients for bhawana since all these ingredients used were oil bearing plants, Thin layer chromatography studies of other extract of vatsanaba with that of final product showed

one spot Rf-0.86 (Isopropanol: methanol:23% ammonium hydroxide; 34:24:1) confirming the presence of vatsanabha in the final product.

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