

Standardization Of *Triphala Rasayana*

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Abstract:

The world of *Ayurveda* medicine has grown rapidly in the last few decades and has exploded, reaching unprecedented heights. The rapid growth of global acceptance and new research is strongly replacing the possibilities and institutions of *Ayurveda*. The *Aushadha kalpana* is prepared by different pharmaceutical processing techniques applied to the crude drugs to get the desired therapeutic effect. This processing results in transformation of good pharmacological action to that of substance. Present study deals with analytical analysis of one such *Rasayana*, *Triphala Rasayana*. *Triphala rasayana* is mentioned in *Yogratnakara* in *Netrarogadhikar*. It is such a compound which has been prepared by mixing *triphala* with *vanshlochan* or *pippali* or *sita* or *saindhava* that is said to be proven chemical experiment. *Triphala Rasayana* was prepared by the method of *Churn Kalpana and bhawana* was given by its own *kwath dravya*. As a result, average percentage of *Bhawit dravya* was obtained. The tablets were prepared by direct compression method as per pharmacopoeial specifications. Optimum hardness, weight of tablets and DT of *Triphala Rasayana* tablets were found complying with official standards. Number of peaks obtained in TLC also corresponds to this finding. Data obtained by present study may be considered as standard for future studies.

KEY WORDS: *Triphala Rasayana*, Organoleptic study, Analytical study.

Introduction:

Ayurvedic medicines are our rich cultural heritage. Traditional *ayurvedic* textbooks listed various *ayurvedic* medicines and their dosage forms that are effective, stable and safe. *Ayurvedic* medicines are gaining popularity among physicians and patients for better therapeutic value. The lack of quality standards and problems, in preparing or testing them are the main hurdles experiencing by both practitioners and patients.

Jara –literal meaning is act of wearing out. the stage of *jirna* and *vridhavastha* is termed as *Jara*. *Acharya Susruta* has continued it in *swabhavik vyadhis*. A healthy individual is one whose *dosha*, *dhatu*, *agni* and *malas* are in state of equilibrium and who is mentally and spiritually in state of calmness.¹ Reciprocally old age is the state of decay in *dhatu*, *indriya* and *bala*.² It is natural and inevitable biological phenomenon. *Ayurveda* has already proven it's importance by giving a separate branch for it among the eight streams i.e, *Rasayana*. The word *Rasayana* means the way for attaining excellent *Rasadi Dhatus*, that delays the *jara* and helps in cure the diseases related to it. It tends to maintain good health and establish physical and mental health in elderly people.³

There are several medicinal drugs have been described as *Rasyanas* in *Ayurveda*, the *Triphala Rasayana* is one of them. Explained in *Yogratnakara* in *Rasayana Rogadhikar*, *Haritaki*, *Vibhitaki*, and *Amalaki* are all powdered compounds that are put together in a equal proportion mixed with *vanshlochan* or *pippali* or *sita* or *saindhava*. Consumption of this *Rasayana* is said to be proven chemical experiment.⁴

MATERIALS AND METHODS

Aims and Objectives

1. Analytical standardization of *Triphala Rasayana*.
2. To carry out the TLC report and physicochemical properties of *Triphala Rasayana* formulation prepared by classical method.

Collection of Raw drug:

The Raw material for the formulation was procured from the Hansa Pharmacy Sidcul, Haridwar Uttarakhand (each ingredient in equal amount). Fig, 1-4. The drug was prepared in the Hansa Pharmacy Sidcul, Haridwar Uttarakhand. Fig.5-12



Figure 1: *Piper longum*



Figure 2: *Emblica officinalis*



Figure 3: *Terminalia chebula*



Figure 4: *Terminalia bellerica*

Method of preparation of *Triphala Rasayana*

The *Triphala Rasayana* was prepared by classical method of *Churna Kalpana*. For making *Churna* all the four herbal drugs i.e *Pippali* (*Piper longum*), *Amalaki* (*Emblica officinalis*), *Haritiki* (*Terminalia chebula*), *Vibhitaki* (*Terminalia bellirica*) were taken in equal amount (1 kg each) in the dry form. All the four drugs were mixed and made into fine homogenous powder after filtered by 80 no. sieve mesh. On the other side, all the four herbal drugs in the coarse form was made for *Kwath* preparation. The fresh decoction was made in eight times of water till it remain 1/4th of it. *Kwath* was filtered and after cooling one *bhawana* was given to the fine powder of drug. At last, the *bhawit* formulation was made dried in a tray drier and granulation was done with the required amount of *Babul goond* for making tablet formulation.

After complete drying of formulation 500 mg tablet were made by tablet compression machine.

Formed tablet was packed in aseptic condition.

The content of *Triphala Rasayana* and there proportion is mentioned in

Table -1.

Drug	Latin Name	Family	Part use	Ratio
<i>Pippali</i>	<i>Piper longum</i>	Piperaceae	Fruit	1000 gm
<i>Amalaki</i>	<i>Emblica officinalis</i>	Euphorbiaceae	Fruit	1000gm
<i>Haritaki</i>	<i>Terminalia chebula</i>	Combretaceae	Fruit	1000gm
<i>Vibhitaki</i>	<i>Terminalia bellerica</i>	Combretaceae	Fruit	1000gm

Analytical Study

Prepared final product i.e, *Triphala Rasayana* was analyzed by applying various analytical parameters.

Organoleptic study or Physical characterization description

Organoleptic characteristics for various sensory characters like colour, taste, odour, etc. was carefully noted down.

Table 2.

Physical characterization Description	
Appearance	Brownish coloured round shaped uncoated tablet
Colour	Brown
Odour	Characteristic
Taste	Characteristic

Physicochemical Analysis

Physicochemical analysis such as weight variation and Disintegration time was carried out. The weight variation and Disintegration time is given in (Table 3). Along this the microbial limit test and heavy metal test were carried out. Results of these tests were obtained within the normal range (Table 4-5)

Table 3: Physicochemical analysis of *Triphala Rasayana*

Parameters	<i>Triphala Rasayana</i>
Weight Variation	-1.99, +3.34
Disintegration Time(min.)	4-5

Table 4: Microbial Limit Test

Total bacterial count (cfu/g)	<10
Total fungal count	<10
E.coli	Absent
Salmonella sp.	Absent
P.aeruginosa	Absent
S. aureus	Absent

Table 5: Heavy Metals Test

Lead (Pb) ppm	4.36
Arsenic (As) ppm	0.78
Cadmium (Cd) ppm	0.09
Mercury (Hg) ppm	0.38

RESULTS AND DISCUSSION

Pharmacognostical and Organoleptic evaluation of *Triphala Rasayana* was performed at finished product. The obtained value of weight variation and Disintegration time were found within normal limit in *Triphala Rasayana* which is the indicator of good quality product. Microbials limit test and heavy metal tests were found within normal limit and the test for Aflatoxins was absent.



Fig. 5-12: Preparation of *Triphala Rasayana*



CONCLUSION

Pharmacognostical and physicochemical evaluation of *Triphala Rasayana* illustrated the specific characteristics of this preparation. It is the first time when pharmaceutical and analytical profile of *Triphala Rasayana* was established. On the basis of microscopic features, the physicochemical profile and microbial limit tests are essential parameters for the quality of formulation. All parameters in this preparation were found within normal limits. The TLC study of *Triphala Rasayana* represents the presence of various ingredients in the sample, and there is no degradation in the final product. It acts as the fingerprints of the used sample, which can be used as the reference for the preparation of same kind of Tablet. On that basis, the present study on *Triphala Rasayana* may be used for standardisation and quality evaluation.

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