

## SYSTEMIC REVIEW ON POLYHERBAL FORMULATION

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### ABSTRACT

Ayurveda is based on Tridosha, which means the theory of three elements of the universe. Vata, Pitta, and Kapha are the three doshas. The meaning of Vata is Wind, Pitta means Bile and Kapha means Phlegm. Those elements correspond to the tridosha that exists in the world, namely Air, Fire, and Water. Shaddharana Churna is a polyherbal Ayurvedic formulation that has been described in the Samhitas like Sushrut Samhita, Ashtang Sangraham, Ashtang Hridayam, Madhava Nidana, Vrinda Madhava, Chakra Datta, Vangasena Samhita, Gada nigraha, Yoga Ratnakar, Brihat Nighantu Ratnakar, Yoga Chintamani, and Bhaishajya Ratnavali. Shaddharana Churna contains six drugs of equal quantities. They are Chitraka, Indrayava, Patha, Katuka, Ativisha, and Abhaya / Haritaki. Plants are the exclusive source of drugs for the treatment of many diseases. Now, a-days, people prefer Ayurvedic medicines due to their lower risk of side effects, and large no of modern evidential data is available. Shaddharana Churna is an Ayurvedic formulation. Effective in Rheumatic complaints, skin diseases, Piles, Diabetes, Flatulence, rheumatoid arthritis, gall stones, and obesity, there has been an effort to compile all the details of Shaddharana churna so that it can be studied in depth.

**Keywords:** Shaddhrana Churna, Chitraka, Indrayava, Patha, Katuka, and Ativisha.

### INTRODUCTION

Indian traditional medicinal system is *Ayurveda*, approximately dates back to three thousand years. *Ayurveda*, the science of life, involves the incorporation of universal 5 elemental forces- namely jala (Water), prithvi (Earth), vayu (Air), aakash (space, ether) and Agni (Fire).

According to Ayurveda, these 5 elemental forces are the fundamentals on which the body and the universe sustain their harmony between in each. They are the structural units that constitute the universe as well as the human body. Therefore whatever is the imbalance in the body in terms of excess or deficiency, Ayurveda has explained through various stipulated scientific guidelines to

manage the excess or deficiency by using the universal elements in terms of food or medication<sup>1</sup>.

The medication is basically in the forms of various herbal, herbo-mineral, mineral drug formulations aimed at elimination of the root pathology of any kind of disorder in the body and by restoring balance, simultaneously creating a healthy life-style, thereby preventing the recur of any disorder. Cure & prevention is the two folded aim of Ayurveda In India, Ayurveda is the oldest medicinal system, and the Sanskrit term for it is the science of life. Their parts are typically used in medicine due to the fact that they have fewer adverse effects. Over the last thousands of years, Ayurveda has evolved into a system of

medicine that is widely practiced today. A variety of techniques and treatments are used to achieve mental, physical, and emotional peace, such as the use of medicinal herbs, yoga, exercises, meditation, etc. There are pros and cons to choosing Ayurvedic medicine as a preferred form of treatment. In today's world Ayurveda faces competition from a variety of other medical systems, mostly from conventional or Western medicine. But almost every Indian household uses it anyway<sup>2</sup>.

### **Ayurvedic Approach**

Ayurvedic physiology is based on the three humoral pathophysiological elements known as the Doshas, as the fundamental base for all the psychosomatic function or homeostasis. Vata, Pitta, and Kapha are the three Doshas. These three factors are substantial for controlling all the anabolic and catabolic macro and micro processes in the body and therefore their equilibrium and synchronous state is mandatory for the maintenance of homeostasis.<sup>3</sup>

Health care is a highly individualized practice under Ayurvedic principles. These principles state that everyone has a specific constitution, or prakriti, which determines his or her physical, physiological, mental character, and disease vulnerability. Prakriti is determined by three "body energies" called doshas. There are three basic doshas, and though everyone has some features of each, most people have one or two that predominate. The first one is Pitta energy which is linked to fire. It is thought to control the digestive and endocrine systems. People with pitta energy are considered fiery in temperament, intelligent and fast-paced. When pitta energy is out of balance, ulcers, inflammation, digestive problems, anger, heartburn, and arthritis can result<sup>4</sup>. The second is Vata energy, which is associated with air and space and is linked to bodily movement, including breathing and blood circulation. Vata energy is said to predominate in people who are lively, creative, original thinkers. When out-of-balance, Vata types can endure joint pain, constipation, dry skin, anxiety, and other ailments, and third is Kapha energy, linked to earth and water, is believed to control growth and strength, and is associated with the chest, and back. Kapha types are considered solid in the constitution, and generally calm. But obesity, diabetes, sinus problems, insecurity, and gallbladder issues can result when Kapha's energy is out of balance. According to Ayurvedic beliefs, factors such as stress, an unhealthy diet, weather, and strained relationships can imbalance a person's doshas.

Among the oldest medicinal systems in the world is Ayurvedic medicine. As part of ayurveda, products derived mainly from plants are combined with products derived from animals, metals, and minerals, as well as diet, exercise, and lifestyle<sup>5</sup>.

There are many ways to prepare Ayurvedic formulations. There are mainly two groups of Ayurvedic compound formulations<sup>6</sup>:

- 1) Kasthausadhi
- 2) Rasaushadhi

Kasthausadhi

The meaning of Kasthausadhi is a drug obtained from medicinal plants.

Rasaushadhi

It refers to drugs and the use of metals and minerals in medicine. Herbo-mineral formulations, or Rasaushadhi, are formed by combining metals and herbs<sup>7</sup>.

### **Ayurvedic Dosage form types**

Ayurvedic dosage forms are classified into four forms and their respective subtypes. They are as follows

1. Solid dosage forms: i. Pills ii. Gutika iii. Vatika
2. Liquid dosage forms: i. Asava ii. Arishta iii. Taila iv. Arka
3. Semi-solid dosage forms: i. Avaleha ii. Lepa iii. Ghrata
4. Powder dosage forms: i. Churna ii. Bhasma iii. Satva<sup>8-9</sup>

Some Ayurvedic herbs may produce side effects or interact with conventional medications<sup>10</sup>.

### **Churna**

Churna is an Ayurvedic dosage form that is a mixture of finely divided herbal drugs and/or chemicals in dry form. Churns supplements are used in Ayurvedic diets for many dietary & nutritional purposes. Ayurvedic churna contain an herbal drug that has strong medicinal properties of its own. Churna combines all six tastes: sweet, sour, salty, pungent, bitter & astringent<sup>6</sup>.

### **Shaddharana churna**

Shaddharana Choornam is a classical Ayurvedic formulation in powder form, for internal administration. The digestive property of Shaddharana Choornam makes it useful in various conditions like Rheumatoid Arthritis, Skin diseases, Obesity, etc. Beneficial in all Vata and Vata-Kapha-related disorders, Shaddharana Choornam also helps relieve edema, piles, toxic conditions, and indigestion.

### **Benefits of shaddharana choornam**

Acts as a laxative and improves digestion. This herbal laxative contains Abhaya as an

ingredient that Ayurveda, aids in bowel movements, also Used for rheumatic complaints and rheumatoid arthritis. Shaddharana Chooranam helps relieve the inflammatory changes associated with Rheumatic complaints, Beneficial in cholesterol-related related diseases. The combination of ingredients in Shaddharana Chooranam helps correct metabolic diseases such as cholesterol and obesity, Aids relief from skin diseases and other conditions. The intake of Shaddharana Chooranam aids faster relief from skin conditions, Ascites, piles, gall stones, and even diabetes Helps balance Kapha and Vata Shaddharana Chooranam acts well in diseases associated with morbid Kapha and Vata doshas.

#### **Ayurvedic action of shaddharana churn / Karma**

1. Ama Pachana: Toxin digester.
2. Bhedana: Causes excretion of accumulated feces and Doshas
3. Deepan: Increase appetite.
4. Jwarahara: Decreases the vega of jwara and reduces the burning sensation.
5. Kasahara: Removes cough.
6. Pachana: Digests Ama but does not increase appetite.

#### **Important therapeutic uses of Shradddharana choornam**

1. Amashayagata Vata (Disorder related to Stomach & Small Intestine)
2. Ascites, gout, rheumatoid arthritis, pain
3. Diabetes
4. Fever
5. Kushtha (Skin Diseases), leprosy
6. Piles, flatulence

#### **Shaddharana work with ayurvedha principles**

Shaddharana Churna consists of 6 drugs, which is described by Sushruta in the context of Amashayagat vata and the same is also indicated for the management of Pakvashayagata vata. The basic information of each drug is given below.

##### **1.Chitraka (*Plumbago Zeylanica*)**

It has Katu rasa (pungent in taste) and deepana pachana property. This is indicated in Akra and Arsha as well as Krimi. Its main ingredient is plumbagin and is used for the treatment of diarrhea and dysentery.

##### **2. Kutaja (*Holarrhena antidysenterica*)**

It has Tikta (bitter) and Kashaya(astringent) rasa. It is also used in the treatment of diarrhea, hemorrhoids. Kutaja is used in colic, dyspepsia, piles; Kutaja powder supports

intestinal health and comfortable elimination of feces. It bolsters the G.I. Tracts and enhances natural defenses. Enhances digestion and excretes natural toxins from the body.

##### **3. Haritaki (*Terminalia chebula*)**

It has Kashaya predominant rasa and it is directly mentioned in Grahani roga(*Amavastha*).

##### **4. Patha (*Cissampelospareira*)**

It is used for abdominal pain, diarrhea, and vomiting. It is Grahi in nature.

##### **5.Katuki (*Picrorhiza Kurroa*)**

It mainly consists of Katu (pungent) and Tikta (bitter) rasas. It is a Deepana drug and is effective in Amapachana. It has been found effective in cases of colitis.

##### **6.Ativisha (*Aconitum heterophyllum*)**

Ativisha is the best among Deepana (taken before meals), Pachana (appetizer-digestives).

Six drugs are deepana, pachan tridosahar, and rasayana, and we can use this combination primarily in vataanubandhi Amlapitta. In conjunction with its guna, this formulation produces excellent results<sup>11</sup>.

#### **Modern processing principles**

It is possible to scale up the production of the medicines by combining Ayurvedic herbal preparations with modern processing principles (MPPs), which is necessary to meet the growing demand for these medicines. To improve dosage forms, it is also important to understand the Ayurvedic principles behind formulation and processing. Based on Ayurvedic drug processing techniques, correlations between traditional and modern preparations were made. According to our observations, there are two main types of process used in Ayurvedic medicine preparations, namely extraction and separation. Shaddharana is prepared in Ayurveda using standardized methods and interpreted utilizing MPPs. By taking this step, traditional methods can be improved or replaced. Using new technology or existing technology with Ayurvedic principles is a way to improve dosage forms and scale up while maintaining the tradition<sup>12</sup>.

Incorporating classical and modern techniques for Shaddharana preparation can result in new technologies and processes that can help upscale production, currently, very little research has been conducted in this field. Comparing the therapeutic outcomes of products developed by classical and modern chemical technologies can provide adequate

logic for selecting technology for the scale-up of Ayurvedic drug production.

### Sushrut Samhitha

A patient Amashaya region is affected when there is an imbalance of Vata. Emesis therapy is given after Shaddharana is administered. Hence, Shaddharana Churna refers to the composite mix of Chitraka, Indrayava, Patha, Katuka, Ativisha, and Abhaya, for seven days, a decoction is administered. According to Sushrut, One Dharana is equal to 19 nishpava of medium size<sup>10</sup>.

### Dalhana

Dalhana, the commentator of Sushruta Samhita reported that the drug to be taken in quantity of Dharana. According to Dalhana, One Dharana means 21 Nishpava.

So, each drug should be taken in a quantity of 1 Dharana(21 nishpava) and hence the total quantity becomes 126 nishpava.

1 = 1 Dharana (21 nishpava)

6 dose =?

$x = 6 \times 21$

= 126 nishpava

That means 126 nishpava doses to be finished in seven days with an equal dose. That means 18 nishpava (3.43 g) per day should be taken<sup>13</sup>.

### Ashtanga Sangrha

Taking concentrated powders of Darvi, Kalinga, Katuka, Ativisha, Agni, and Patha mixed with cow's urine cures piles, abdominal enlargement, tumors of the abdomen, and other abdominal illnesses, Vamana (Emesis) followed by Shaddharana Churna should be administered for 7 days if Vata is lodged in the Amashaya region (channels carrying the food).

### Ashtanga Hridaya

1. Vayu (Vata) localized in the Amashaya region requires the consumption of Vamana (Emesis) and pratibhojana (the mantra of diets) in combination with Shaddharana churna<sup>14</sup>.

2. To cure patients of their illnesses, these ingredients are mixed with either warm water or cow's urine and consumed for a month.

### Vrinda Madhava

A description of Shaddharana is given in Vrinda Madhava as Shatcharana Yoga. Both Amashayagata Vata and Mahavyadhi are treated with this formulation. According to this, 1 Karsha is made up of 18 Nishpava and 1 Dharana is made up of 1 Karsha plus 3 Nishpava. i.e. total 21 Nishpava. Thus Shaddharana Yoga should be finished in Saptaratram (7 nights)<sup>15</sup>.

### Chakradatta

At first, emesis should be administered followed by Shaddharana with lukewarm water for a week if Vata is in Amashaya. There are five Dharanas - Chitraka, Indrayava, Patha, Katuka, Ativisha, and Abhaya [Haritaki] - together in equal quantities. This remedy is beneficial to both Amashayagata Vata and Mahavyadhi. Taking the same dose every day is recommended.

### Vangasena

According to this concept, Shaddharana should be finished in 7 days but in the next quotation, it is said that all these six medicines should be taken in 1 Dharana quantity each, and formulation should be given for 6 days.

In the footnote of the text, it is said that Shaddharana is recommended for Amashaya gata Vata (Gastro-Thoracic syndrome) after Vamana, Vamana should be given on the first day, followed by a second-day formulation, and continued for the remaining 6 days. The sixth and final dose of the formulation is given on the seventh day and should be taken within seven days, while another quotation suggests that the six medicines must be taken daily as one dose of Dharani each and the formula should be drunk each day. There must also be a proper sequence of components administered (chitraka-indrayava-patha-katuka-ativisha-Abhaya).

### Bhaishajya Ratnavali

Initially, emesis should be administered according to text, followed by Shaddharana administered with lukewarm water for one week if Vata is located in Amashaya. Chitraka, Indrayava, Patha, Katuka, Ativisha, and Abhaya[Haritaki]-each in quantity of a dharana. This mixture is a beneficial remedy for Mahavyadhi<sup>16</sup>. According to Sushrut Samhita and the theory given by Dalhana,

**Table 1: The following ingredients are used to formulate Shaddharana: (SDY-I)**

NAME	BOTANICAL NAME	PARTS USED	QUANTITY	USES
Chitraka	Plumbago zeylanica	Root	1 Part	Digestive stimulant.

Indrayava	Holarrhena antidysenterica	Seeds	1 Part	Bleeding piles, Diarrhoea, Eczema.
Patha	Cissampelos pareira	Root	1 Part	Effective appetizer.
Katuka	Picrorhiza Kurroa	Rhizome	1 Part	Potent appetizer.
Ativisha	Aconitum Heterophyllum	Tuberous root	1 Part	Preventing and reducing piles.
Abhaya/Haritaki	Terminalia chebula	Fruit pulp	1 Part	Mild laxative.

**Table 2: According to Ashtanga Sangraha, the ingredients of Shaddharana are as follows: (SDY-II)**

NAME	BOTANICAL NAME	PARTS USED	QUANTITY	USES
Chitraka	Plumbago zeylanica	Root	1 Part	Digestive stimulant.
Indrayava	Holarrhenaantidysenterica	Seeds	1 Part	Bleeding piles, Diarrhoea, Eczema.
Patha	Cissampelos pareira	Root	1 Part	Effective appetizer.
Katuka	Picrorhiza Kurroa	Rhizome	1 Part	Potent appetizer.
Ativisha	Aconitum Heterophyllum	Tuberous root	1 Part	Preventing and reducing piles.
Darvi/Daruharidra	Berberis aristata	Root	1 Part	Cures skin diseases.

#### Method of preparation

- 1) Shaddharana is available in the form of a churn.
- 2) The above ingredients are powdered separately and mixed together in a given specific quantity.

#### Administration

It is stated in Sushruta Samhita that it is given in the form of a decoction (with lukewarm water) for 7 days.

#### Dosage of Shaddharanachurna

- 1) Give a teaspoon of or 3 grams per day for 7 days if you are experiencing toxins or aggravated Vata.
- 2) It is given with cow's urine or lukewarm water in leprosy, hemorrhoids, diabetes, edema, and anemia.

#### The pharmacological action of each drug

1. Chitrak (*Plumbago zeylanica*) Root/Root Bark Ethanol extract from *Plumbago zeylanica* inhibited systemic anaphylactic shock<sup>17</sup>.

#### A) Antibacterial Activity

Hydrocarbon extracts and their partition (Petroleum ether, dichloromethane, methanol, and aqueous residue) were effective against *Salmonella*, *Escherichia coli*, *Proteus Vulgaris*,

and *Klebsiella pneumoniae*. Aqueous and alcoholic extracts from roots of *Plumbago zeylanica* exhibited activity against *Bacillus subtilis*, *Escherichia coli*, *Proteus Vulgaris*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, and *Staphylococcus aureus*. An alcoholic extract obtained from *Plumbago zeylanica* roots was tested against multi-drug resistance of clinical origin (*Salmonella paratyphi*, *Staphylococcus aureus*, *Escherichia coli*, and *Shigella dysenteriae*). Antibacterial activity of the extract was observed against all bacteria tested. The antibacterial activity of 82 plants was tested, and only alcoholic extracts of *Plumbago zeylanica*, *Emblica Officinalis*, *Terminalia chebula*, and *Terminalia bellerica* showed potential<sup>18</sup>. Ethyl acetate extract exhibited the lowest minimum inhibitory concentration against five *H. pylori* strains, of which ranged from 0.32 to 1.28 mg/ml, followed, in ascending order, by the acetone, ethanol, and water analogs<sup>18</sup>.

#### B) Central nervous system activity

The effects of a 50% ethanol extract of the root of *P. zeylanica* were investigated on locomotor behavior and central dopaminergic activity in rats. There was a significant increase in spontaneous motility in animals after consumption of the extract. A study of *zeylanica* root extracts showed that it specifically increased spontaneous ambulatory activity without causing stereotypical behavior.

*Plumbago zeylanica* leaf extracts were evaluated for central nervous system activities. Results showed that the extract exhibited CNS depressant properties and muscle-relaxing effects<sup>19</sup>.

### C) Anticandidal Activity

The alcohol extracts of *Plumbago zeylanica* showed strong antifungal activity against *Candida albicans*, a pathogenic yeast, and various dermatophytes. According to the study, the minimum inhibitory concentration (MIC) was 4 mg/ml<sup>20</sup>.

### D) Protection against Cyclophosphamide-induced genotoxicity and oxidative stress

Taking the alcoholic root extract of *Plumbago zeylanica* (250 and 500 mg/kg body weight orally for 5 days) significantly reduced the rate of micronucleated polychromatic erythrocytes (MnPCEs), *Plumbago zeylanica* increased the PCE/NCE ratio (*normochromic erythrocyte*) in the bone marrow and reduced lipid peroxidation products while promoting antioxidant status<sup>21</sup>.

### E) Hyperglycemia in rats, treated with ethanol root extract of *Plumbago zeylanica*

The effects of ethanol extract of the root of *Plumbago zeylanica* were studied in rats. Serum pyruvate and lactate were significantly lowered in the experimental rats. The reduction in the activities of the key enzymes of glycolysis and its end-products suggests a reduction in flux across the glycolytic pathway in the extract-treated rats. Consequently, peripheral tissue has trouble delivering and utilizing glucose, further supporting the hyperglycemia observed in rats treated with the extract<sup>22</sup>.

## 2. Indrayav (*Holarrhena antidysenterica*) Seeds

A. Inhibition of acetylcholinesterase (AChE) is still considered as a strategy for the treatment of neurological disorders such as Alzheimer's disease (AD). Many plant-derived alkaloids (such as huperzine A, galantamine, and rivastigmine) are known for their AChE inhibitory activity.

B. In the course of searching for AChE inhibitors from herb medicines, the total alkaloidal extract from the seeds of *H. antidysenterica* was found to have potent AChE inhibitory activity with an IC (50) value of 6.1 µg/mL. Further, Bioactivity-guided chromatographic fractionation afforded five steroidal alkaloids, conessine 1, isoconessimine 2, conessimin 3, conarrhimin 4, and contain 5<sup>23</sup>.

## 3. Patha (*Cissampelos pariera*) Root

a. The *C. peltata* are found to contain alkaloids such as cycleanine, berberine, hayatinin, hayatidin, and hayatin. The root contains bis-benzyl-isoquinoline alkaloids, cycleapeltine, cycleadrine, cycleacuine, cycleanorine, and cycleahomine chloride

b. Anti-Lithiasis effects

The root extract reduced the lithiasis confirmed by the reduced level of urinary oxalate and calcium in ethylene glycol-induced lithiasis in rats<sup>24</sup>.

c. Anti-hyperlipidemic effects

The ethanolic extract reduced the total cholesterol, LDL cholesterol, and triglycerides and increased the HDL cholesterol in hypercholesterolemia-induced rats<sup>25</sup>.

d. Anti-diabetic effect

Aqueous extract significantly decreased both the fasting and postprandial blood glucose of type 2 diabetic rats and enhanced insulin levels in the diabetic rats.

e. Antibacterial activity

Methanolic extract of the whole plant of *C. peltata* had higher inhibitory action against *Staphylococcus aureus*, *Streptococcus haemolyticus*, *Klebsiella pneumonia*, and *Proteus Vulgaris* while Acetone extract of the plant showed maximum inhibitory action against *Klebsiella pneumoniae* and *Streptococcus hemolyticus*<sup>26</sup>.

f. Anti-diuretic activity

The ethanolic and petroleum ether extracts of *C. peltata* were studied for diuretic activity in Wistar rats using the Lips chitz et al. method. The diuretic effect of ethanolic extract was significantly higher than that of petroleum extract.

## 4. Katuka (*Picrorhiza kurroa*) Rhizome

a. The hepato-regenerative and hypolipidemic effects of Picroliv, the preparation was shown to have similar or more potent activities than silymarin, a purified fraction of *Silybum marianum* (Asteraceae), commonly used in the treatment of liver disorders. Audubon was also shown to potently inhibit phorbol ester-induced edema in mice ears, while catalpol and picroside II were not active<sup>27</sup>.

The biological activities of *P. Kurrooa* can be explained as Ayurveda diuretic roots-antibacterial and antimicrobial activity<sup>6</sup> and alcoholic extracts of the roots being active against *Micrococcus pyogenes* var. *aureus* and *Escherichia coli*, *Staphylococcus aureus*, and *Salmonella typhi*. *P. kurrooa* has been shown

to reduce mortality due to *Plasmodium berghei* (parasite) and hepatitis-B (virus) hepatotoxicity. The extract of this plant and its major constituents exhibited significant activity against fungi<sup>18</sup>.

### 5. Ativisha (*Aconitum heterophyllum*) Tuberous Root

The biogenesis of intensely bitter diterpene alkaloid atisine (I) (0.4% in the roots) and atidine (II) has been discussed by Whalley, Leete, Weissner, and Wenkert and it has been suggested that these compounds possibly originate from condensation with – amino ethanol as per hypothetical route given by Whalley and Leete. Under the above circumstances, the biogenesis of remaining members is also understandable<sup>28</sup>.

As can be seen, all these compounds have the same absolute stereochemistry at common reference points Gopinath et al, have fractionated the basic components of the roots of *A. heterophyllum* into three broad fractions namely a) weak base fraction b) strong base fraction and c) very strong base fraction.

The strong-base fraction containing the bulk of the alkaloids is known to consist mainly of atisine.

The weak base fraction produced heterophylla sine, heterophyllous, and heterophyllidine. There is structural correspondence between these compounds and heteratisine. As well as atisine, the strong base fraction yielded two new alkaloids atidine and F-dihydroatisine, while the very strong base fraction yielded histidine and hetisinone alkaloids.

### 6. Abhaya / Haritaki (*Terminalia chebula*) Fruit pulp

In *Terminalia chebula*, 33% of the total phytoconstituents are hydrolyzable tannins (which may vary from 20-50%) and are responsible for pharmacological activity. These tannins contain phenolic carboxylic acids like gallic acid, ellagic acid, chebulic acid, and gallotannins such as 1,6 di-O-galloyl-β-D-glucose, 3,4,6 tri-O-galloyl-β D-glucose, 2,3,4,6 tetra-O-galloyl-β-D-glucose, 1,2,3,4,6 Penta-Ogalloyl-β-D-glucose. Many different ellagitannins such as neochebulinic acid, chebulagic acid and chebulinic acid have been reported in literature<sup>13</sup>. The structure of neochebulinic acid has been elucidated. tannin content varies with the geological variation. Flavonol glycosides, triterpenoids, coumarin conjugated with gallic acid called chebulin, as well as phenolic compounds were also isolated. Various methods have been reported for the extraction of phytoconstituents from *Terminalia chebula* for studying their pharmacological activities. total eight

compounds viz. gallic acid, methyl gallate, ethyl gallate, chebulagic acid, tetra-O-galloyl-β-D-glucose, ellagic acid, chebulinic acid, and Penta-O galloyl-β-D-glucose from *Terminalia chebula* were isolated on reverse phase chromatography<sup>18</sup>.

### DISCUSSION

All the above-mentioned texts except Ashtang Sangraha and Ashtang Hridaya refer to Shaddharana Yoga or Shatcharana Yoga as Shaddharana Yoga-I. Shaddharana Yoga's II formulation is available in Ashtang Sangraha and Ashtang Hridaya. For conditions like Amashayagata Vata or Meda-Kaphavrit Vata, SDY-I is recommended exclusively. This formulation is described for Shodhana. SDY-II formulation is recommended for diseases such as Kushtha, Arsha, Udara, etc.

Regarding Sushruta samhita, it is important to note that it is described in Vatavyadhi Adhyaya, where Abhaya [Haritaki] seems appropriate because of its Anulomana property. Kushtha-Chikitsa describes the references of SDY-II in Ashtang Hridaya and Ashtang Sangraha. Daruharidra has replaced Abhaya [Haritaki]. Darvi has good pharmacological properties which make it useful in the treatment of Kushtha. It is possible that this is why Darvi is used in this formulation instead of Abhaya. However, the same formulation from kushta chikitsa is recommended in vatavyadhi in AshtangSangraha and Ashtang Hridaya. Therefore, based on these references, it would be better if Darvi was replaced by Abhaya in Vatavyadhi.

Again, the references from Chakradatta and Bhaishajyaratnavali justify Haritaki's inclusion in the formulation since this reference pertains to Amashayagata Vata.

As per the second reference, all the drugs should be given in a dose of 1 Dharana (3g) each for six days with lukewarm water, and the drugs should be given in the same order in which they are mentioned in the text. The formulation is called "Shaddharana Yoga" where the "Yoga" word indicates that the drugs should be mixed then taken. As a six-day-long preparation, the formulation would not mention Yoga if it were intended to be used as each drug every day. Therefore, after considering both methods, we believe the first method is more appropriate.

### CONCLUSION

Shaddharana Yoga contains six drugs i.e. Chitraka, Indrayava, Patha, Katuka, Ativisha, and Abhaya[Haritaki]. This formulation is useful in AmashayagataVata. Shaddharana itself describes the total quantity of this

formulation should not exceed 6 Dharana i.e. 126 Nishpava [24g]. All the six drugs as per indication should be taken in equal quantity i.e. 1Dharana/21 Nishpava (4g). This total formulation of Shaddharana should be finished in Seven days keeping the dose as 18 Nishpava (3.43g) per day Shaddharana Yoga can also be consumed in another way in which all the drugs are given individually for six days in a dose of 1 Dharana per day after administration of Vamana. Dalhana's commentary is very useful in understanding how to use this drug. Shaddharana Yoga should be used in Amashayagata Vata after the administration of Vamana karma, for the next seven days for improving the status of Agni. Shaddharana Yoga and Shatcharana Yoga are synonyms. Literary review suggests that the first method would be appropriate regarding the use of Shaddharana Yoga.

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