JETIR.ORG

### ISSN: 2349-5162 | ESTD Year: 2014 | Monthly Issue



# JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

## A PHARMACOLOGICAL REVIEW ON SITOPALADI CHOORNA

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#### **ABSTRACT**

Pharmaceutics in Ayurveda is vogue for more than 3000 years. A crude classification of pharmaceutics is *Rasashastra* (Herbomineral) and *Bhaishajya Kalpana* (Herbal). The basic extraction of drug is dubbed *Kashaya Kalpana*, *Acharya Dalhana* defined *choorna* as the end product of grinding dried drug using *Peshana*. *Sitopaladi choorna* is a unique popular herbal formulation indicated predominantly in *Pranavaha sroto vikara*. An effort was made to collect and interpret various references pertaining to *Sitopaladi Choorna* along with its ingredients across relevant texts to interpret the mode of action of the compound drug with its indications *Sitopaladi choorna* is antitubercular, antipyretic, antitussive, Anti-asthmatic Anti-inflammatory Ayurvedic Herbal Formulation made up of *Sitopala* (Saccharum officinarum), *Vamsha* (Bambusa bambos), *Pippali* (Piper longum), *Ela* (Elettaria cardomomum) & *Twak* (Cinnamomum zeylenicum) in the dosage form of *Choorna kalpana*.

#### **KEYWORDS**

Sitopaladi, Choorna kalpana, rasashastra, Bhaishajya kalpana, Pranavaha sroto vikara

#### INTRODUCTION

Pharmaceutics in Ayurveda is vogue for more than 3000 years. Among the quadruped limbs of therapeutics, *Dravya* (Drug) is second most important after *Bhishaka* (Physician). A crude classification of pharmaceutics is *Rasashastra* (Herbomineral) and *Bhaishajya Kalpana* (Herbal). Features of ideal drug include effective in low doses, Fast acting, broad spectrum, easy administration, easy metabolization, Palatable, nourishes body, alleviates diseases, doesn't produce any Iatrogenicity with less amount of side effect, & potent in terms of odor, color and taste. <sup>(1)</sup> The basic extraction of drug is dubbed *Kashaya Kalpana* <sup>(2)</sup>. *Acharya Kashyapa* was first to include *Choorna Kalpana* in the basic dosage form <sup>(3)</sup>. Acharya Vagbhatta terms *Choorna Kalpana* as *Upakalpana* of *Kalka*. <sup>(4)</sup> *Acharya Dalhana* defined *choorna* as the end product of grinding dried drug using *Peshana*. <sup>(5)</sup> Acharya Sharangadhara standardized the SOP of *Choorna Kalpana* by adding the step of Sieving after grinding. <sup>(6)</sup> Ancient shelf-life period advocated just 2 months <sup>(7)</sup> for *Choorna* whereas advancement in Pharmaceutics increased the shelf life to 2 years. <sup>(8)</sup> The general dosing of Choorna was set at 1 *Karsha* or 12g. <sup>(9)</sup> *Sitopaladi choorna* is a unique popular herbal formulation indicated predominantly in *Pranavaha sroto vikara*. An effort was made to collect and interpret various references pertaining to *Sitopaladi Choorna* along with its ingredients across relevant texts to interpret the mode of action of the compound drug with its indications

#### **DRUG REVIEW**

Table 1 - References of Sitopaladi Choorna

Sl No	Book	Rogadhikara/Prakarana	Reference	
1	Charaka Samhita (10)	Rajyakshma	Cha. Chi 8/103-105	
2	Sharangadhara Samhita (11)	Choorna	Sha.Mad. Kha 6/ 134-137	
3	Gada nigraha (12)	Rajyakshma	Ga. Ni 3/190-192	
4	Yoga taragnini (13)	Vishama Jwara	Yo. ta 20/191&27/26-28	
5	Bhaishajya Ratanavali (14)	Rajayakshma	B. R 14 /27-28	
6	Vrinda Madhava (15)	Choorna	Vru. Ma 10 /11-13	
7	Brihat Nighantu Ratnakar (16)	Kshaya	Bri.Ni. Ra/Kshya/pg147-148	
8	Yoga Ratnakara (17)	Jwara & kshaya	Yogaratnakara 11/54-56	
9	AFI (18)	Choorna	Part 2/Sec.7	

Sitopaladi Choorna as mentioned in Table 1 is quoted by multiple authors in their treatise. The *Prakarana/Rogadhikara* are mainly 3 contexts – *Jwara* (Fevers), *Rajayakshma* (Phthisis) & *Choorna Kalpana* (Powder Dosage form)

Table 2 - Ingredients of Sitopaladi Choorna

Sl		W.		
no.	Ingredients	Latin Name	Part used	Quantity
1	Sitopala	Saccharum officinale	Sugar Candy	16 parts
2	Vamsha Lochana	Bambusa bambos	Siliceous concretions	8 Parts
3	Pippali	Piper longum	Fruit	4 parts
4	Ela	Elettaria Cardomomum	Seed	2 parts
5	Twak	Cinnamomum zeylenicum	Wood Bark	1 Part

#### SOP of Sitopaladi Choorna

All the ingredients are taken in the dried form. They are grounded individually using a mortar. The powders obtained are then sieved through cloth. The resultant powders are mixed together thoroughly. The final product is stored in air tight containers.

Dosage: 12g a day in dived doses (Muhurmuhu) (19)

Anupana: Gritha and Madhu

Rogaghnata – Kasa (Cough) Swasa (Dyspnea) kshaya (Phthisis), hastapadadaha (Burning Sensation of Extremities), mandagni (Weak Digestion), Suptajihva (Numbness in tongue), Parshwashoola (Pleurisy), Arochaka (Anorexia), Jwara (Fever), Urdhwaga Raktapitta (Bleeding Disorders)

Table 3 Rasapanchaka of Dravyas used in Sitopaladi Choorna (20-24)

Sl no.	Ingredients	Guna	Rasa	Vipaka	Veerya	Doshagnta	Karma	Rogaghnata
1	Sitopala	Laghu	Madhura	Madhura	Sheeta	Vatapittagna	Veerya vardhaka,	Jwara, Raktavikara, Murchha
2	Vamsha Lochana	Laghu & Snigdha	Madhura kashaya	-	Sheeta	Kaphapittagn a	Daha Shamaka kapha nissarakara Balya	Kushta Pandu Kasa Kshaya Vrana nashana
3	Pippali	Laghu & Snigha	Katu	Madhura	Ushna	Kaphavata shamaka	Vrushya Deepaka Pachaka Rasayana medoghna Yogavahi Balya	Swasa Kasa Yakrut pleeha pandu Jwara
4	Ela	Laghu & Snigha	Katu	Katu	Ushna	Tridoshahara	Kapha nissarakara Kandugna Dahaprashaman	Swasa Kasa Aruchi Arshas
5	Twak	Laghu Ruksha Teekshna	Katu	Katu	Ushna	Kaphavatagh na	Deepaka Pachaka Shoolagna Rakta stambhaka Ojovardhaka Mukhashodhana	Aruchi, Grahani, Puyameha, Nadi dourbalya

#### DISCUSSION

The Madhura Rasa, Madhura Vipaka & Sheeta veerya of Sitopala & Vamsha help in the management of Hastapadadaha along with Dahaprashamana activity of Ela. The katu rasa of Pippali, Ela & Twak acts on Agnimandya & Aruchi. Kaphavataghna action of Pippali does the management of kasa & Swasa, Pippali & Twak also have lekhana Karma based on its teekshnata & Ushna veerya on Jihwasuptata. The Kaphanissaraka Property of Pippali, Ela & Vamsha act in the management of Parshvashoola. Madhura Vipaka of Sitopala & Pippali with Sheeta Veerya of Vamsha, Sitopala help in the management of Raktapitta along with ratkta stambhaka action of Twak. All the *Dravyas* are inherently *Jwaraghna*. Since above stated symptoms come under the umbrella of *Ekadadharoopi* Rajayakshma, The Combination of the drug is effective in lakshanika Chikitsa (Symptomatic Management). Cinnamaldehyde of Twak has both inhibitory & induces apoptosis in Tuberculosis bacteria (25), Saccaharum officinarum inhibits the synthesis of prostaglandins and therefore acts as antipyretic. (26) The anti-inflammatory activity of Piper longum plays a major role in management of peripheral neuritis as well as helps as decongestant and bronchodilator activity in management of Asthma. (27)

#### **CONCLUSION**

Sitopaladi choorna is antitubercular, antipyretic, antitussive, Antiasthmatic Anti-inflammatory Ayurvedic Herbal Formulation made up of Sitopala (Saccaharum officinarum), Vamsha (Bambusa bambos), Pippali (Piper longum), Ela (Elettaria Cardomumum) & Twak (Cinnamomum zeylenicum) in the dosage form of *Choorna kalpana*. Further Studies on Safety & Efficacy are required to re-establish the action on Pranavahasrotas in current era.

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