Comparative Clinical Study on the Effect of *Abhayakanadi* and *Chirabilvadi* Decoctions in the Management of *Shushka Arsha*

Premakeerthi WMSA¹ Javasuriva HSV*² Samarakoon SMS³

¹ Gampaha Wickramarachchi University of Indigenous Medicine, Sri Lanka ² Department of Roga Nidana Evum Vikriti Vigyana, National Institute of Ayurveda, Jaipur, India

³ Postgraduate Institute of Indigenous Medicine, University of Colombo, Sri Lanka

ABSTRACT

Acharya Susruta, the father of the Indian surgery has found that Arsha is a very troublesome disease to be treated, and it has mentioned under eight Maharoga. Acharya Charaka and Vagbhata mentioned two types of Arsha namely Suska Arsha and Sravi Arsha. The former is Vata and Kapha dominant whereas the latter is Pitta and Rakta dominant. Classical texts recommend Abayakandi and Chirabilvadi decoctions for Suska arhsa. This comparative clinical study was conducted to evaluate the effect of Abayakandi and Chirabilyadi decoctions on Suska Arsha. Sixty patients of Shuska Arsha were randomly divided into two groups. Group A was treated with Abayakandi decoction and Group B was treated with *Chirabilavadi* decoction for a period of fourteen days. Subjective and objective criteria of assessment were evaluated before and after treatment. Data was analyzed by SPSS software. Collectively, 80% of patients were reported above 40 years of patients indicating Arsha is more common in middle aged and elderly patients. Arsha is commoner among male (66,67%), laborers (35%). housewives (25%) and Vata-pittaja prakruti (65%). Clinical features of Arsha are aggravated by oily and spicy food (each 71.67%), alcohol consumption (50%) and heavy work (48.33%) in majority of patients whereas they are relieved by fiber diet (96.67%) and resting (41.67%). People who consume food rich in Amla, Lavana and Katu rasa (98.33% each) are prone to have Arsha. Abayakanadi decoction (AD) improved most of the subjective parameters, fasting blood sugar, hemoglobin, swelling, size and number of pile mass in statistically significant manner (p<0.001). Abayakanadi decoction has Vata-Kapa Sharmaka, Anulomana, Agni Deepana and Mrudu Virechana effects. Chirabilvadi Decoction (CD) improved subjective parameters, fasting blood sugar, hemoglobin, number, swelling and size of pile mass in statistically significant manner (p<0.001). Chirabilvadi decoction has Vata-Kapa Shamaka, Pitta Vardhaka, Agni Deepana, Pachana, and Mrudu Virechana effects. Finally, it may be concluded that Abhayakanadi Decoction is more effective on improving clinical features of Sushka Arsha over Chirabilvadi Decoction.

Keywords: *Abhayakanadi* decoction, *Chirabilvadi* decoction, *Maharoga*, *Sushka Arsha*

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Corresponding Author: shehanvidurangaja@gmail.com

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Introduction

Science of teaching longevity is called Ayurveda. The philosophy mentioning the art of having person longevity from one's conception and death is also called Ayurveda (Sharma, 2014). There are two fundamental objectives of Ayurveda system, protecting the healthy person (*Swasthasya Swastha Rakshana*) and getting rid and unhealthy person (*Athurasya Vikara Prashamana*) (*E-Samhita - National Institute of Indian Medical Heritage, n.d.*). Longevity has four categories. They are called *Hitha Ayusha*, *Ahitha Ayusha*, *Sukkha Ayusha*, and *Dukkha Ayusha* (Sutrasthana 1.40, Sharma, 2014). The World Health organization definition of the healthy person is, a person lives without having any disturbance of physical, mental, social and spiritual wellbeing.

According to Ayurveda, methodology causing illness is three types. Illness from outside sources like cold, heat etc (*Adhi Dhaivika Vyadhi*), traumatic causes of illness (*Adhi Bhoutika Vyadhi*) and internal causes of illness (*Adhyathmika Roga*) (YS, 2019). It has been fully described in the medical foods that cause for all the disease is *Mandagini* (Nidanasthana 12.1, Srikanthamurthy, 2001).

In Ayurveda system diseases are described as *Nidana, Purwarupa, Rupa, Upashaya, Samprapthi, Vyakthi* and *Bhedha* (Nidanasthana 1.2, Murthy, 2001). *Nidana* or causes of illness have been described as enjoyment of foods or habits or mental. There are certain natural ways in such a *dosas* of food and drink are taken contrary to those *Dosas* it causes disease. According to the Ayurveda system of medicine, when *Roga Samprapthi* occurs *Srothas* has taken a prominent place when *Roga Samprapthi* take place *Srothas* becomes doubled such as *Athiprawurthi, Sanga, Vimargagamana,* and *Shiragranthi* causes of all the disease take place (Vimana sthana 5, Sharma, 2014).

Among all *Srothas* (body channels), *Charaka Samhitha* has explained 13 *Maha/Sthula shrothas* (Vimana sthana 5/7, Sharma, 2014). The conditions of diseases of *Arsas* (piles) studied in the research are related to *Guda* (anus) and *Guda Marga* (anal canal). There are quite a few diseases associating with anus and anal canal such as constipation, piles, fistula-in-ano, fissure-in-ano, anal tags, rectal prolapse, rectal cancer etc(Leela et al., 2024). Hemorrhoids are a very common anorectal condition defined as the symptomatic enlargement and distal displacement of the normal anal cushions (Foxx-Orenstein et al., 2014). They affect millions of people around the world and represent a major medical and socioeconomic problem. Multiple factors have been claimed to be the etiologies of hemorrhoid development, including constipation and prolonged straining. The abnormal dilatation and distortion of the vascular channel, together with

destructive changes in the supporting connective tissue within the anal cushion, is a paramount finding of hemorrhoids. An inflammatory reaction and vascular hyperplasia may be evident in hemorrhoids.

Although hemorrhoids are recognized as a very common cause of rectal bleeding and anal discomfort, the true epidemiology of this disease is unknown because patients tend to use self-medication rather than to seek proper medical attention. An epidemiologic study by Johanson in 1990 showed that 10 million people in the United States complained of hemorrhoids, corresponding to a prevalence rate of 4.4%. In both sexes, peak prevalence occurred between age 45-65 years and the development of hemorrhoids before the age of 20 years was unusual. Whites and higher socioeconomic status individuals were affected more frequently than blacks and those of lower socioeconomic status. However, this association may reflect differences in health-seeking behavior rather than true prevalence. In the United Kingdom, hemorrhoids were reported to affect 13%-36% of the general population. However, this estimation may be higher than actual prevalence because the community-based studies mainly relied on self-reporting and patients may attribute any anorectal symptoms to hemorrhoids.

Significance of the Research

The ancient Ayurveda text described *Sushka Arshas* as an extremely painful condition. It is a state of being and enemy to the patient. There for agent effective treatment is of utmost importance. Decoction of *Abayakanadi* and *Chirabilvadi* are commonly used treatment mentioned in Ayurveda classics. The effectiveness of this decoction on *Suska Arshas* condition management. Thus, this study is concerned with the assessment of the efficacy of *Abayakanadi* and *Chirabilvadi* decoction in the management of *Suska Arshas* conditions.

Objectives of the research

General objective is to compare the effect of *Abayakanadi* and *Chirabilvadi* decoction in the management of *Sushka Arshas*. Specific objectives are to evaluate the effect of *Abayakanadi* decoction in the management of *Sushka Arshas*, to evaluate the effect of *Chirabilvadi* decoction in the management of *Sushka Arshas and* review on *Arshas* in Ayurveda classics

Literature review

According to Ayurveda Pharmacopeia of Sri Lanka *Abhayakanadi Kashaya* has 08 ingredients. *Harithaki (Terminalia chebula), Kana (Piper longum), Kalashaka*

(Murraya paniculata), Danti (Balijos permum), Thrivrit (Operculinia turpethum), Eranda (Ricinis communis), Punarnava (Boerhavia diffusa), Bilva (Aegle marmelus) (Department of Ayurveda, 1985)

In *Chiribilvadi Kashaya*, there are 06 main ingredients mentioned in Ayurveda texts. *Chiribilva (Pongamia pinnata)*, *Punarnava (Boerhavia diffusa)*, *Vahni (Plumbago Indica)*, *Abhaya (Terminalia chebula)*, *Kana (Piper longum)*, *Nagara (Zingiber officinale)* (Ji, 2015)

Materials and Methods

Study design

The study was a randomized clinical trial. And it was conducted at OPD of Ayurveda Central Dispensary, Morathota. Study duration is 02 weeks.

Inclusion criteria

Both male and female Patients, Patients aged 20 to 65 years, Patients diagnosed with 2nd or 3rd degree *Arsha* (hemorrhoids), based on clinical examination, Specifically patients with *Shushka* type Arsha (dry hemorrhoids), as per Ayurvedic classification, Chronicity less than 03 years were inclusion criteria of the study.

Exclusion criteria

Age below 20 years old, over 65 years old, Pregnant mothers, Patients suffering from cancers, UC, Patients with external thrombotic pile mass, 4^{th} degree and 1^{st} degree of Arsha were exclusion criteria.

Selection and grouping of patients

60 *Shushka Arshas* patients were selected from Ayurveda Central Dispensary, Morathota who visited OPD. Randomly divided into 02 groups, namely Group A and Group B with 30 patients in each group. Group A was treated with *Abhayakanadi Kashaya* and Group B was treated with *Chirabilvadi Kashaya*. All individuals were asked to take the decoction twice a day before meal for 14 days.

Assessment criteria

Both Subjective and Objective parameters were considered. **Table 01** shows Subjective Parameters and **Table 02** shows considered Objective parameters of assessment.

Subjective parameters (Tahasildar et al., 2020)

Subjective parameter	Grading	Grade			
Guda Peeda	No pain	0			
(Pain around anal	Pain remains for 01 hr after defecation	1			
region)	Pain remains for 1-5 hrs after defecation	2			
	Continues pain in whole day	3			
Udara Peeda	No pain	0			
(Abdominal Pain)	Pain while defecation	1			
	On and off pain in whole day	2			
	Continues pain in whole day	3			
Malavastambha	vastambha No Constipation				
(Constipation)	Evacuation of bowel once per 2 days	1			
	Evacuation of bowel once per 3-4 days	2			
	Evacuation of bowel after taking drastic purgation	3			
Agnimandya	No indigestion	0			
(Indigestion)	Indigestion of heavy food	1			
	Indigestion of normal food with heaviness of abdomen	2			
	Indigestion of all kinds of food with heaviness of abdomen and flatulence	3			
Fecal Incontinence	No incontinence	0			
	Defecation urges immediately after meal	1			
	3-5 times stool passing per day	2			
	More than 05 times stool passing per day	3			

Objective parameters (Samhita, 2024)

Objective parameter	Reading	Grade
Shotha	No swelling	0
(swelling of pile	Minimal swelling with venous prominence	1
mass)	Venous prominence with mucosal thickening	2
	Venous prominence with mucosal thickening and prolapse	3
Pramana	No pile mass	0
(size of pile mass)	Up to 5mm of pile mass	1
	5-10mm of pile mass	2
	More than 10mm of pile mass	3
Sankhya	No pile mass	0
(amount of pile	1-2 pile mass	1
mass)	2-3 pile mass	2
	More than 04 pile mass	3

Results

Table 3: Effect of *Abhayakanadi Kashaya* on subjective parameters of *Shushka Arshas*

Parameter	Ме	an	SD Z		P	
T drameter	BT	AT	ВТ	AT	2	1
Guda Peeda	2.36	0.53	0.71	0.62	-4.90	P<0.001
Udara Peeda	2.16	0.56	0.91	0.67	-4.90	P<0.001
Malawasthambha	1.53	0.23	0.93	0.50	-4.69	P<0.001

Agnimadaya	1.53	0.23	1.00	0.43	-4.37	P<0.001
Fecal incontinence	1.53	0.23	0.89	0.50	-4.59	P<0.001

The mean value of *Guda Peeda* from 2.36 ± 0.71 to 0.53 ± 0.62 , *Udara Peeda* from 2.16 ± 0.91 to 0.56 ± 0.67 , *Malawasthambha* from 1.53 ± 0.93 to 0.23 ± 0.50 , *Agnimandaya* from 1.53 ± 1.00 to 0.23 ± 0.50 , fecal incontinence from 1.53 ± 0.89 to 0.23 ± 0.50 has been reduced in statistically significant manner (P<0.001).

Table 4: Effect of *Abhayakanadi Kashaya* on objective parameters of *Shushka Arshas*

Parameter	Мє	ean	SD ± SE		Z	P
	BT	AT	BT	AT		_
Shotha of pile mass	1.40	0.46	0.49±0.09	0.50±0.92	14.00	P<0.001
Size of pile mass	2.23	1.03	0.81±0.14	0.55±0.10	10.77	P<0.001
Number of pile mass	2.26	1.26	0.69±0.12	0.58±0.10	9.32	P<0.001
FBS	1.05	1.02	19.34±3.53	16.79±3.06	3.46	P<0.001
Hb	12.47	12.81	0.88±0.16	0.80±0.14	-4.74	P<0.001

The mean value of *Shotha* of pile mass from 1.40 ± 0.49 to 1.02 ± 16.79 , Size of pile mass from 2.23 ± 0.80 to 1.03 ± 0.55 , Number of pile mass from 2.26 ± 0.69 to 1.26 ± 0.10 , FBS from 1.05 ± 19.34 to 1.02 ± 16.79 , Hemoglobin count from 12.47 ± 0.88 to 12.81 ± 0.80 has been reduced in statistically significant manner (P<0.001).

Table 5: Effect of *Chirabilvadi Kashaya* on subjective parameters of *Shushka Arshas*

Parameter	Mean		SD		Z	P
	BT	AT	BT	AT		

Guda Peeda	2.20	0.56	0.66	0.56	-4.90	P<0.001
Udara Peeda	2.16	0.56	0.87	0.56	-4.90	P<0.001
Malawasthambha	1.53	0.23	0.68	0.43	-4.91	P<0.001
Agnimadaya	1.73	0.46	0.90	0.57	-4.38	P<0.001
Fecal incontinence	1.50	0.37	0.93	0.49	-4.38	P<0.001

The mean value of *Guda Peeda* from 2.20 ± 0.66 to 0.56 ± 0.56 , *Udara Peeda* from 2.16 ± 0.87 to 0.56 ± 0.56 , *Malawasthambha* from 1.53 ± 0.68 to 0.23 ± 0.43 , *Agnimandaya* from 1.73 ± 0.90 to $0.46 \pm 0.0.57$, fecal incontinence from 1.50 ± 0.93 to 0.37 ± 0.49 has been reduced in statistically significant manner (P<0.001).

Table 6: Effect of *Chirabilvadi Kashaya* on objective parameters of *Shushka Arshas*

Parameter	Мє	ean	SD ± SE		Z	P
	ВТ	AT	ВТ	AT		
Shotha of pile mass	1.63	0.80	0.61±0.12	0.61±0.11	9.89	P<0.001
Size of pile mass	2.33	1.33	0.74±0.13	0.66±0.12	9.20	P<0.001
Number of pile mass	2.16	1.33	0.74±0.13	0.66±0.12	6.53	P<0.001
FBS	1.08	1.01	20.59±3.75	11.33±2.07	3.02	P<0.001
Hb	11.87	12.07	0.67±0.12	0.65±0.12	4.32	P<0.001

The mean value of *Shotha* of pile mass from 1.63 ± 0.66 to 0.88 ± 0.61 , Size of pile mass from 2.23 ± 0.74 to 1.33 ± 0.66 , Number of pile mass from 2.16 ± 0.74 to 1.33 ± 0.66 , FBS from 1.08 ± 20.59 to 1.01 ± 2.07 , Hb count from 11.87 ± 0.67 to 12.07 ± 0.65 has been reduced in statistically significant manner (P<0.001).

Table 7: Comparative effect of *Abhayakanadi Kashaya* and *Chirabilvadi Kashaya* on subjective parameters of *Shushka Arsha*

Parameter	Difference in mean	Difference in SD	Z	Р
Guda Peeda	1.70	0.63	-1.07	P>0.05
Udara Peeda	1.60	0.76	-0.19	P>0.05
Malawasthambha	1.30	0.67	-0.36	P>0.05
Agnimadaya	1.28	0.88	-0.14	P>0.05
Fecal incontinence	1.20	0.73	-1.30	P>0.05

The difference of mean of *Guda Peeda* 1.70 ± 0.63 *Udara Peeda* 1.60 ± 0.76 , *Malawasthambha* 1.30 ± 0.67 , *Agnimandaya* 1.28 ± 0.88 , fecal incontinence 1.20 ± 0.73 between group A and group B is statistically insignificant (P>0.05)

Table 8: Comparative effect of *Abhayakanadi Kashaya* and *Chirabilvadi Kashaya* on subjective parameters of *Shushka Arsha*

Parameter	Difference in mean	Difference in SD	t	Р
Shotha of pile mass	0.92	0.10	0.85	P>0.05
Size of pile mass	0.10	0.15	0.67	P>0.05
FBS	-3.02	2.25	-1.45	P>0.05
Hb	0.21	0.07	2.65	P<0.05

The difference of mean of *Shotha* of pile mass 0.92 ± 0.10 , Size of pile mass 0.10 ± 0.15 , FBS -3.02 ± 2.25 between group A and group B is statistically insignificant (P>0.05). The difference of mean of Hemoglobin count 0.21 ± 0.07 between group A and group B is statistically significant (P<0.05).

Discussion

Most patients were reported in 40-50 age group (45%) followed by 50 -60 age group (35%). Collectively, 80% of patients were reported above 40 years of patients indicating *Arsha* is more common in middle aged and elderly patients. This may be due to their work pattern and dietary habits. This study has reported that male (66.67%) individuals are more affected *Arsha* than females (33.33%) which may be due to the diet and work that they involve. Males are comparatively engaged in heavy work and males are more addicted to alcohol etc than females resulting in *Arsha*. Most patients are married (98.33%) which is since married patients were the majority of the selected sample.

Considering the severity, most patients were having second degree of *Arsha* (65%) followed by third degree of *Arsha* (35%). *Arsh*a is a painful disease in which *Gudapeeda* (pain of *Guda Ankura*) (100%), *Udara Peeda* (abdominal pain) (100%), *Mala Wasthambha* (constipation) (96.67%), *Agnimandya* (loss of appetite) and fecal incontinence (each 81.67%) were the chief complaints. According to this sample, *Arsha* is a chronic disease with gradually onset (100%). Diet and constipation play a major role in the pathogenesis of *Arsha*. Most patients had *Vishamashana*, (76.67%), *Virudhasana* (25%) and *Krura Koshta* (95%). Most patients had poor apatite (73.33%), *Vashamagni* (66.67%), *Mandagni* (33.33%), constipation (73.33%) and irregular bowel habits (26.67%). Considering the nature of diet, *Ruksha*, *Snigdha Ahara* (100% each), *Virudha Ahara* (98.33%), *Atiguru Ahara* (93.33%) and *Ati Madhura Ahara* (86.67%) had reported to take in this sample.

Abayakanadi decoction improved Guda Peeda, Udara Peeda, Mala Wasthamba, Agnimandaya and fecal incontinence in statistically significant manner (p<0.001). Discussing objective parameters of this decoction improved fasting blood sugar, hemoglobin, Sotha of pile mass, size of pile mass and Sankya of pile mass in statistically significant manner (p<0.001). Abayakanadi decoction is mainly composed of Madura (54.54%), Katu (63.63%), Tikta (54.54%), and Kasaya Rasa (54.54%); Laghu (72.72%), Guru (27.27%), Ruksha (45.45%), Snigdha (36.36%), Thikshna (45.45%) Guna, Ushna Virya (72.72%), Madura Vipaka (54.54%). Abayakanadi decoction has Vata-Kapa Sharmaka, Anulomana, Agni Deepana, Pachana, Yakrututhejaka and Mrudu Virechana effects, and it is effective on Agnimandaya, Anaha, Aruchi, Vibandha and Arsha. Discussing on above pharmacodynamics properties of Abhayakanadi decoction, this has Tridosha hara, mainly Vata and Kapha hara effect, it corrects Agnimadya, it stimulates life for its proper functions, and it has Vibanda hara effect. Due to its

synergistic effect, *Abhayakanadi* decoction improved subjectively as well as objective parameters of *Sushaka Arsha* significantly.

Chirabilvadi decoction improved Guda Peeda, Udara Peeda, Mala Awasthamba, Agnimandaya and fecal incontinence in statistically significant manner (p<0.001). and improved fasting blood sugar, hemoglobin, Sankya of pile mass, Sotha of pile mass, and size of pile mass in statistically significant manner (p<0.001). Chirabilvadi decoction is composed of Katu (85.71%), Tikta (42.85%) and Kasaya (42.85%) Rasa, Laghu (100%), Tikshana (42.85%) and Ruksha (42.85%) Guna, Ushana Virya (85.71%); Madhura Vipaka (57.14%). Considering above pharmacodynamics properties, Chirabilvadi decoction has Vata-Kapa Shamaka and Pitta Vardhaka effects, Agni Deepana, Pachana, Bhedhana, Anulomana, Rechana, Yakrut Uthejaka and Mrudu Virechana effects. Due to above properties, Chirabilvadi decoction corrects Agnimandaya, Anaha, Aruchi, Ajeerna, Adhmana, Vibandha and Arsha. By foregoing, Chirabilvadi decoction has mainly Vata-Kapha Shamaka effect. Due to the pharmacodynamics properties of Chirabilvadi decoction, it improved subjectively and objectively.

The improvement of *Guda Peeda*, *Udara Peeda*, *Mala Avastambha*, *Agnimandya* and fecal incontinence between group A and group B is statistically insignificant (p>0.05). The improvement of Hb count between group and group B is statistically significant (p<0.05) whereas the improvement of FBS, *Sotha* of file mass and size of pile mass is statistically insignificant (p>0.05).

Conclusion

The *Dosha* that involved in *Sushaka Arsha* is *Vata* and *Kapha*. Considering pharmacodynamics properties and results of this study, *Abhayakanadi* decoction has more effect on *Vata* and *Kapha* than that of *Chirabilvadi* decoction. Moreover, *Abhayakanadi* decoction is more potent in correcting *Agnimandya*, *Vibanda*, *Anaha* etc. It has *Virechana* effect comparatively superior to that of *Chirabilvadi* decoction.

Finally, it may be concluded that *Abhayakanadi Kashaya* is more effective on improving clinical featured of *Shushka Arshas* over *Chirabilvadi Kashaya*. These findings may be further validated in future research by using large samples and longer treatment duration.

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