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A CLINICAL ASESSMENT OF SAUVARCHALADI CHURNA IN VATAJ KASA

Bhushan D. Mhaiskar[1], Sachin S. Waghmare[2], Sanjay G. kulkarni[3]

[1]MD Scholar, [2]Guide & Reader, [3]HOD & Professor

Dept of Sanskit Samhita Siddhant, Yashwant Ayurvedic College P.G.T& R.C, Kodoli, Kolhapur, Maharashtra, India

ABSTRACT

Kasa[1] is one of the commonest complaints in day to day life and it is also a symptom of various diseases of respiratory system. Dusty environment and faulty habits of eating. Every person affects recurrent attacks in his her life that suffer and may have its adverse effects if left untreated. The present clinical study was carried out to evaluate the effect of *Sauvarchaladi Churna* a herbomineral compound in *Vataja kasa*[1]. The clinical trial was conducted on 60 patients in between the age group of 20 to 60 years. They were randomized and divided into two groups; each group consisted of minimum 30 patients. Group A and Group B were treated with *Sauvarchaladi Churna*[1] compound and *Shati churna*[12], *Goghrita* as anupana respectively. The results were analyzed statistically. The analysis suggested that the *Sauvarchaladi Churna*[1] is effective and safe herbal formulation in reducing the signs and symptoms of *Vataja kasa*[1].

Keywords: *Vataj Kasa*, Cough, *Sauvarchaladi Churna, Shati churna*

INTRODUCTION

As a known fact *Amberpiyush*[2] i.e. *Pranvayu*[2] is only responsible for respiration. *Uchhwasa*[2] and *Nishwasa*[2] or to say breathing in and breathing out, is the normal phenomenon of life. To and fro movement of air through the *Pranavaha srotas*[2] is the vital sign of life, the normalcy of which suggests health. The abnormality in respiration indicates disease and its cessation marks death. This unique sign of life is affected in the disease *Vataj Kasa*[1]. *Vataj Kasa*[1] is one of the commonest complaints in day to day general practice and it is also a symptom of various diseases of respiratory system. *Vataj Kasa*[1] may not be life threatening but increasingly annoying and irritating to individuals in their routine activities. Moreover when neglected it may lead to a series of complications. *Vataj Kasa*[1] has a broad spectrum of etiology, ranging from allergens to infections. Recurrent attacks makes one suffer and may have its adverse effects on the day to day life. Cough occurs in association with acute upper respiratory infection, acute pharyngitis, acute bronchitis and chronic sinusitis, all of which rank among the top 10 reasons for visiting family physicians. *Shamana*[2] line of treatment that includes oral administration of medicine is of utmost importance as the administration is very easy and also effective compared to *Shodhana*[2]. Many research works have been carried out in relation to the *Shamana*[2] treatment as directed in *Ayurveda* and their therapeutic effects are proved. Many herbal combinations are described in *Ayurveda* and their

therapeutic effect in *Vataj Kasa*[1] is yet to be explored. The effect of Herbomineral drug compound containing equal quantities of *Sauvarchal lavan*[1], *Abhaya*[1], *Dhatri*[1], *Pippali*[1], *Shunthi*[1], and *Yawa kshar*[1], is likely to be very effective in combating the signs and symptoms of *Vataj kasa*[1]. A Clinical Study on *Vataj Kasa*[1] with an Indigenous drug Compound was also reported.

MATERIALS AND METHODS

Present study was being carried out for scientific basis *Acharya charaka* claim of this trial drugs like *Sauvarchaladi churna*[1] in the management of *Vataja Kasa*[1]. The present study was conducted on patients of *Vataj Kasa*[1] in between the age group of 20 to 60 years. Patients were divided into two groups. Group A and B were treated with *Sauvarchaladi churna*[1] which contains combination of *Sauvarchala lavan*[1], *Abhaya,*[1] *Dhatri*[1], *Pippali*[1], *Shunthi*[1], and *Yawa kshar*[1] respectively which were prepared at *Vasantidevi college of Pharmacy Kodoli, Kolhapur.* The observations of the cases were recorded according to the research proforma.

CRITERIA FOR SELECTION OF PATIENTS

Patients with signs and symptoms of *Vataj Kasa*[1] were selected randomly irrespective of their sex, age, profession, etc. from Swastharakshan & Kaychikitsa O.P.D of ***Yashwant Ayurved College Post Graduate training and research institute, kodoli, Kolhapur***, Institutional Ethical Clearance Number: PGYACK/129/02/2012 was granted for this study.

Inclusion Criteria

-Age group between 20 to 60 years
-Sex – Either
-Presence of clinical features of *Vataj kasa*[1]
-Repeated attacks of *Vataj kasa*[1]
-Patients irrespective of sex, religion, socioeconomic status and between the age group of 20-60 years were taken.

Exclusion Criteria

-*Kshayaj kasa*[1]
-*Kshataj kasa*[1]
-*Jara kasa*[1]
-*Jirna kasa*[1]
-Patient other than sign and symptoms of *Vataj kasa*[1]
-Subjects with other systemic disorders like CHD, Diabetes, Hepato renal complications etc.
-Patients on long time regular medications.

Study Design

For diagnostic purpose the signs and symptoms mentioned below were taken for the study.

1. *Hritparshwshool* [1] (chest pain)
2. *Shirshool*[1] (headache)
3. *Swarbheda*[1] (Hoarseness)
4. *Kanth ura waktra shushkta*[1] (dryness of throat, chest, mouth)
5. *Hristloma*[1] (horripilations)
6. *Pratamanan* [1] (feeling of darkness)
7. *Nirghosh*[1] (resonant sounds)
8. *Dainya*[1] (anxious expression)
9. *Stanan* [1] (loss of strength)
10. *Daurbalya*[1] (weakness)
11. *Shobh Mohkruta* [1] (irritability)
12. *Shushka kasa*[1] (dry coughing)

Dose, duration and mode of administration

· Duration of the treatment -28 days

· Dosage internally –Trial drug- *Saurwachaladi churna*[1]**,** *Matra*[8] - 3 gm daily (1.5 gm BID) (According to severity of disease, *agni*[8], *vaya*[8], bal,) etc., *Sevankal*[1] – *Apankala*[1], *Anuapan* - *Grita*[1], Duration - 28 Days

Control Drug – Shati Churna[12], *Matra*[8] - 3 gm daily (1.5 gm BID) (According to severity of disease, *agni*[8], *vaya*[8], *bal*[8],) etc., *Sevankal*[1] – *Apankala*[1], *Anuapan* - *Grita*[1], Duration - 28 Days.

Assessment Criteria- Assessment will be done initially before intervention of medicine and there after weekly(every 7 days) for a period of 28 days in the case record form, on the basis of improvement in the following parameters on various rating scales.

Objective parameters-

1. *Hritparshwshool* [1] (chest pain)
2. *Shirshool* [1] (headache)
3. *Swarbheda* [1] (Hoarseness)
4. *Kanth ura waktra shushkta*[1] (dryness of throat, chest, mouth)
5. *Hristloma* [1] (horripilations)
6. *Pratamanan* [1] (feeling of darkness)
7. *Nirghosh* [1] (resonant sounds)
8. *Dainya* [1] (anxious expression)
9. *Stanan*[1] (loss of strength)
10. *Daurbalya*[1] (weakness)
11. *Shobh Mohkruta* [1] (irritability)
12. *Shushka kasa*[1] (dry coughing)

Subjective parameters-

1. Blood HB%, 2.TLC, 3.DLC, 4.ESR, 5.AEC (Absolute Eosinophil count)

Statistical Analysis

Statistical analysis was carried out using the software EPIINFO. We performed frequency calculations along with non-parametric test procedures for statistical analysis, Wilcoxon Signed Ranks test, and Mann-Whitney U test is used. **The Wilcoxon signed-rank test, Mann-Whitney U Test:** is a non-parametric statistical hypothesis tests, which can be used as an alternative to the paired Student's t-test, *t*-test for matched pairs, or the *t*-test for dependent samples when the population cannot be assumed to be normally distributed.

DISCUSSION

Herbomineral Compound helps in reducing *Shirashoola*[1], *HritParshwa Shoola* [1]and *Ura Shoola*[1] due to Ushna *Veerya* of the drug *Shati*[12] which acts as *Vedana sthapaka*[1]. Kasa vega[1], *Shushka kasa*[1], *Shushka vaktra*[1] and *Swara bheda*[1] are due to *Rooksha Guna*[1] of *Vata*[1] The drugs containing *katu rasa*[2] (*Yawakshar*[1], *Shunthi*[1], *Pippali*[1]), *rooksha laghu guna*[2], *ushna veerya*[2] *(Sauvarchal lavan*[1], *Yawakshar*[1], *Haritaki*[1], *Pippali*[1], *Shunthi*[1]*)* and *katu vipaka (Yawa kshar)* [1] are having direct action on *mandagni, ama* [2]and *vata dosha*[3] which are the main factors involved in the *samprapti*[3].

Drugs containing guru *snigdha guna*[1], *ushna veerya*[1] & *madhura vipaka*[1] (*Haritaki*[1], *Amalaki*[1], *Pippali*[1], *Shunthi*[1]) are known to be *Vatashamaka* and *vatanulomaka*. *Go-Ghrita*[1] having *madhura rasa*[2] *madhura vipaka*[2], *Yogvahi guna* [3]pacifies *vata dosha*[1] and does *bruhuna*[1] to *puppusa*[1]. (*Sauvarchal lavan, Yavakshara*[1]) removes the *sroto avarodha*[1] in *Pranavaha srotas*.[3] *Srotas*[1] vitiated is *pranavaha srotas*[3], which is corrected by all the drugs, as they are *kasa hara*[4] and *swasa hara*[4]. *Srotodusti* is *sanga*, which is relieved by *ushna veerya*[1] and *srotoshodaka*[4] properties of the drugs.

Table 1: Registration of Data

No. of patients registered	No. of patients undergone whole study	L.A.M.A.	Percentage %
60	60	0	100

Table 2: Effect on symptoms, signs and hematological parameters of *Vataja Kasa* in Trial Group (*Sauvarchaladi churna*)

Sr.no.	Signs & Symptoms		Median		Relief in %	P- Value	T^+
			BT	AT			
1.	*Hritparshwshool*		2	0	93%↑	<0.01	465
2.	*Shirshool*		2	0	94%↑	<0.01	465
3.	*Swarbheda*		2	0	92.98%↑	<0.01	465
4.	*Kanthurvaktrashushkata*		2	0	90%↑	<0.01	435
5.	*Hristloma*		2	0	94%↑	<0.01	435
6.	*Pratamanan*		2	0	90%↑	>0.01	435
7.	*Nirghosh*		2	0	94%↑	<0.01	465
8.	*Dainya*		2	0	88%↑	<0.01	465
9.	*Stanana*		2	0	85%↑	<0.01	406
10.	*Daurbalya*		2	0	86%↑	<0.01	406
11.	*Kshobhmohkruta*		2	0	89.7%↑	<0.01	435
12.	*Shushkkasa*		2	0	88.7%↑	<0.01	435
13.	Hb%		Mean		5.96%	<0.001	T Value
			10.340	10.957			-5.072
14.	Total leucocyte count		10000	5000	44.95%	<0.001	378
15.	Differential leucocyte Count	DLC	Median difference		Total Relief %	P- value	T^+
		N	10		45.09%	0.079%	-
		L	5.5			0.517%	-
		E	1			0.094%	-
		B	0			0.198%	-
		M	0			0.002%	-
16.	Erythrocyte sedimentation count		10	1↓	75%↑	<0.001	406
17.	Absolute Eosinophil count		10	1↓	17.55%↑	<0.001	406

Note: ↓decrease, ↑increase, BT- before Treatment, AT- after Treatment, %- Percentage, P- value- Probability value, T^+ Value- Wilcoxon signed rank

TABLE 3: Effect on symptoms, signs and hematological parameters of Vataj Kasa in Control Group (Shati churna)

Sr.no.	Signs & Symptoms		Median		Relief in %	P- Value	T^+
			BT	AT			
1.	*Hritparshwshool*		2	0	81%↓	<0.01	435
2.	*Shirshool*		2	0	96%↑	>0.01	406
3.	*Swarbheda*		2	0.5	72%↓	<0.01	465
4.	*Kanthurvaktrashushkata*		2	0	80%↑	>0.01	378
5.	*Hristloma*		2	0	76%↓	>0.01	325
6.	*Pratamanan*		2	0	94%↑	<0.01	435
7.	*Nirghosh*		2	0	79%↓	>0.01	406
8.	*Dainya*		2	0	79%↓	>0.01	325
9.	*Stanana*		2	0	71%↓	>0.01	406
10.	*Daurbalya*		2	0	68.9%	>0.01	435
11.	*Kshobhmohkruta*		2	0	82.7%↑	>0.01	406
12.	*Shushkkasa*		2	0	70%↓	>0.01	406
13.	Hb%		Mean				T Value
			10.700	11.220↑	4.86%	<0.001	-6.1582
14.	Total leucocyte count		9650	5000↓	35.8%	>0.001	378
15.	Differential leukocyte Count	DLC	Median difference		Total Relief %	P- value	T^+
		N	18		35.64%↓	0.079%	N.S.
		L	5			0.517%	N.S
		E	1			0.094%	N.S
		B	0			0.198%	N.S
		M	0			0.002%	N.S
16.	Erythrocyte sedimentation count		9	3↓	58%	<0.001	406
17.	Absolute Eosinophil count		9	3↓	11.88%↓	>0.001	299

Note: ↓decrease, ↑increase BT- before Treatment, AT- after Treatment, %- Percentage, P- value- Probability value, T^+Value- Wilcoxon signed rank

TABLE 4: Comparative effect on symptoms, signs and hematological parameters of Vataj Kasa in Trial Group and Control Group)

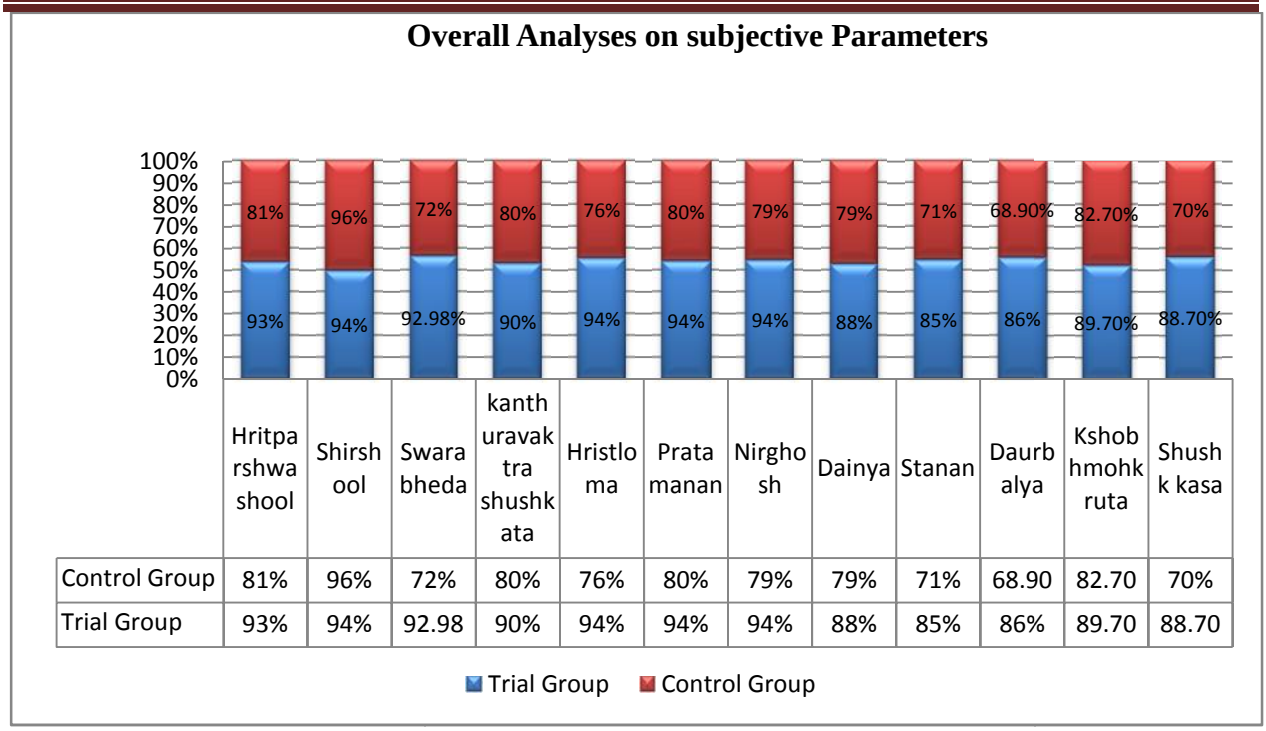
Sr.no.	Signs & Symptoms	Mann Whitney (U)		Normal approx. (Z)		P- Value	
		BT	AT	BT	AT	BT	AT

1.	*Hritparshwshool*		949.5	795↓	0.556	-2.226	0.578	0.026
2.	*Shirshool*		1000	949↓	1.349	0.839↓	0.178	0.401
3.	*Swarbheda*		866	717↓	-0.755	-3.711	0.45	0.0002
4.	*Kanthurvaktrashushkata*		837	813↓	-1.218	-1.981	0.223	0.0075
5.	*Hristloma*		878.5	778.5↓↓	-0.578	-2.674	0.563	0.0075
6.	*Pratamanan*		869.5	807↓	-0.73	-2.218	0.465	0.027
7.	*Nirghosh*		882.5	793.5↓	-0.573	-2.436	0.608	0.0115
8.	*Dainya*		921	825↓	0.087	-0.667	0.931	0.096
9.	*Stanana*		888.5	788↓	-0.461	-2.221	0.645	0.026
10.	*Daurbalya*		858.5	783↓	-0.907	-2.258	0.364	0.024
11.	*Kshobhmohkruta*		984	870↓	1.078	-0.877	0.281	0.380
12.	*Shushkkasa*		881.5	774↓	0.535	2.494	0. 592	0.013
13.	Hb%		T		df			
			-1.241	-1.069↑	58		0.0219	0.289↓
14.	Total leucocyte count(TLC)		1028.5	877↓	1.651	-0.580	0.099	0.562
	Differential Leucocyte Count(DLC)	N	1003		1.756		0.079	
		L	928.5		0.649		0.517	
		E	991.5		1.679		0.0094	
		B	868.5		-1.288		0.198	
		M	1058		3.166		0.002	
16.	Erythrocyte sedimentation count		8	7↓	40%		<0.005	
17.	Absolute Eosinophil count		928.5	759.5↓	0.149↓	-2.398	0.882	0.017

Note: ↓decrease, ↑increase

BT- Before Treatment, AT- After Treatment, Value got after applying Mann Whitney (U) Factor, Normal approximation (Z), P- value- Probability value, t- Value got after applying T – Test.

GRAPH 1: Overall analysis on subjective Parameters



CONCLUSION

Kasa[1] appears to be a very simple disease, but if neglected or mis-managed may lead to various – critical conditions like *kshaya*[1], *rajyakshma*[1] etc, as such has been described as swatantra vyadhi, unlike modern science '*Rogamaadou pareeksheta tato anantaram aushadham*[7]' – one should study A disease in detail, about its *nidana,poorvaroopa,roopa,upashaya,anupashya,samprapti*[7] then has to plan its management.

Vataj kasa presents with symptoms like *hritparshwashoola*[1], *shirshoola*[1], *swarbhed*[1], *kanthvaktrashushkta*[1], *hristloma*[1], *pratamanan*[1], *nirghosh*[1], *dainya*[1], *stanan*[1], *daurbalya*[1], *kshobhmohkruta*[1], *shushka kasa*[1] etc. which are in tune with the features like repeated bouts of Chest pain, headache, hoarseness of voice, weakness, Dry cough, Weight loss, and Malaise etc. ascribed to T.P.E. in Modern science. Here the disease '*Vataj kasa*[1]' is selected, due to its increased occurrence in the society. Every human being, in his life time will suffer from this disease.

Here the disease '*Vataj kasa*[1]' is selected, due to its increased occurrence in the society. Every human being, in his life time will suffer from this disease. Even though it is not considered as a 'life threatening disease, it will hamper the day today activity of a person. Also, if neglected, it will lead to critical conditions like *kshaya*[1] or *rajayakshma*[1] etc. While explaining the *chikitsa of Vataj Kasa*[1,2] almost all Acharya suggested *snehana chikitsa*, *Abhyantar sneha pana* [1,2,3]specially *shamana sneha*[4]. In *Charaka Samhita* Acharya *Charaka* has highlighted the usage of *Sauvarchaladi churna*[1] in *Vataj Kasa*[1] (*charaka chikitsa 18 / 122*). This *Sauvarchaladi churna*[1] formulation is taken orally with addition of *go-grita*[1] as *anupana*[8], *Go-grita*[1] to make it palatable as well *snigdha*[1] to counter the *rooksha* effect of *vata dosha*[1,8]. The observation based on the age group indicates that the highest incidence of *vataj kasa*[1] is in the age group of

20-30 yrs The patients who are males/females are affected equally by *Vataj kasa*, The discussion on socioeconomic status, The majority of patients were from middle class 73.33%, Poor class (BPL) i.e. (0 %) It can be concluded that the majority of patients are Farmers 28.33 % more prone to get *Vataj kasa*, study reveals maximum numbers of patients were *Vata kapha prakruti*[1] 45 %, Considering the discussion on diet, it could be concluded that mixed diet 61.66% people are more prone, Results related to the *Vyasan,* More active patients are had no habit/*vyasan* were 61.66%, It can also be concluded that *Sauvarchaladi churna* is significantly beneficial in reducing DLC and AEC than *Shati churna*[8] alone. By considering all the results of the individual parameters and overall assessment, it can be concluded that the *Sauvarchaladi churna*[1] is significantly better than *Shati Churna*[8] alone. It can therefore be concluded that the present series of trials employing *Sauvarchaladi churna* successfully clinically & statistically substantiates the *samprapti vighatana*[1,2] of *Vataj kasa* as mentioned in classical texts and indicated the process of *samprapti vighatana*[1,2].

ABBREVIATION

TLC –White Blood Cell count,
ESR –Erythrocyte Sedimentation Rate
AEC –Absolute Eosinophil Count
DLC- Differential leukocyte count
N.S - Not significant **Hb** –Hemoglobin

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CORRESPONDING AUTHOR

Dr. Bhushan D. Mhaiskar

MD Scholar, Dept of Sanskit Samhita Siddhant, Yashwant Ayurvedic College P.G.T& R.C, Kodoli, Kolhapur, Maharashtra, India

Email: dr.bhu2050@gmail.com

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