



A CONCEPTUAL STUDY ON AMAVATA W.S.R. TO YOGARATNAKARA AND IT'S MANAGEMENT THROUGH SUNTHYADI KWATHA AND PANCHAKOLA CHURNA

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ABSTRACT

Background: - Due to the busy schedule in society no one is focusing to maintain their health, so most are affected with one or more diseases. The things that create trouble in most of the people are having faulty dietary habit & not following Dinacharya and Rutucharya. So different diseases related to daily life are rampantly appeared, out of them Amavata is one of the most common.

Materials and Methods: -30 No. of Amavata patients were randomly selected from OPD, IPD of Govt. Ayurvedic College & Hospital, Balangir. A special proforma was prepared which includes details of history taking, physical sign and symptoms, subjective and objective parameters.

Result and Discussion: - During the entire duration of therapy, there was not any adverse/untoward observed for both the trial groups. Here, Group A showed better result in overall total parameters.

Conclusion: - The effect of the medicine, that is, Sunthyadi kwatha is more significant in Amavata than Panchakola churna in this study.

KEYWORDS: - Amavata, Sunthyadi kwatha, Panchakola churna

INTRODUCTION

The things that create trouble in most of the people are having faulty dietary habit & not following Dinacharya and Rutucharya. So different diseases related to daily life are rampantly appear, out of them Amavata^[1] is one of the most common. It is made up of two words, one is 'Ama' and another is 'Vata.' Due to mandagni anna rasa doesn't undergo proper digestion as it results in apakwa anna rasa which is known as Ama. Due to various factors like Viruddha Ahara, Virudha Chesta, Mandagni and Sedentary life style Doshas with the influence of Vata get vitiated along with Ama reaches different Srotas, Dhamanis and circulates all over the body especially to the site of Kapha then produces various symptoms like stiffness, heaviness which is called as Amavata. Here in this study sunthyadi kwatha^[2] and panchakola churna^[3] have been taken as trial drug due to it's deepana and pachana guna which is the prime treatment for Amavata.

Aim and objective of study

- To compile and review of literature on the topic Amavata from Yogaratnakara and different Acharyas.
- To assess the siddhanta given on the basis of the principle that is Agni deepana and Ama pachana by the help of "Sunthyadi kwatha and Panchakola churna"
- To assess and compare the effect of Sunthyadi Kwatha and panchakola churna on Amavata.

Materials and Methods

CTRI NO. – CTRI/2023/07/054668

Clinical Source

30 No. of Amavata patients will be randomly selected from OPD, IPD of Govt. Ayurvedic College & Hospital, Balangir and Saradeswari Govt. Ayurvedic Hospital, Balangir and the Camps to be conducted by Govt. Ayurvedic College & Hospital, Balangir.

Ethical Clearance

With due approval by IEC (Institutional Ethical Committee) with ref. no.– 1797/29.08.2022, Govt. Ayurvedic College & Hospital, Balangir, the study has been conducted among the patients registered for the purpose. Written consent was obtained from each patient participate in the study with prior proper information.



Study Design and Grouping

A special proforma was prepared which includes details of history taking, physical sign and symptoms, subjective and objective parameters. With this proforma 30 no. of patients were randomly scrutinized and selected for the study.

Methodology- Randomized controlled Trial study (Open Label)

30 no. of patients, satisfying the inclusion as well as exclusion criteria, were taken for the present study and all patients were divided into 2 equal groups i.e. Group A and Group B. And the assessment was made before and after treatment.

Group A: - 15 patients were given Sunthyadi kwatha orally for 30 days.

Group B: - 15 patients were given Panchakola churna orally for 30 days.

A comparison was done among Group A and Group B before and after treatment.

DIAGNOSTIC CRITERIA

The patients were diagnosed on the basis of both subjective and objective parameters. The subjective and objective parameters was examined through Trividha, Sadvidha & Astavidha Pariksha.

INCLUSION CRITERIA

- As per the classical sign and symptoms described in Ayurvedic text and modern literature.
- Age- 20 to 40yrs.
- Patient willing for trial and co-operative.

EXCLUSION CRITERIA

- Age below 20 years and above 40 years
- Chronicity > 10yrs
- Above 50% joint involvement
- Other joint disease
- Patients with pregnancy, cancer and other life-threatening diseases
- Patients with metabolic disorders

ASSESSMENT CRITERIA

Assessment of the effect of therapy was done on the basis of various subjective and objective criteria. For the purpose of assessment, a detailed research proforma in incorporating various parameters like Dashvidha pariksha, Astavidha pariksha etc. were created. Patient were thoroughly assessed after every 15 days during the entire study period. Improvement in the signs and symptoms will be graded as 0, 1, 2, 3 grade for normal (0), mild (1), moderate (2), severe (3) accordingly.

CLINICAL ASSESSMENT

The average percentage improvement in the severity of different clinical sign and symptoms was calculated. The overall clinical assessment was done considering the sign and symptoms as follows-

- Marked improvement – Above 75% relief in sign and symptoms
- Moderate improvement – 51%- 75% relief in sign and symptoms
- Mild improvement – 26%-50% relief in sign and symptoms
- Unsatisfactory – 0-25% relief in sign and symptoms

Subjective criteria :^[4]

- Angamarda (Bodyache)
- Aruchi (Anorexia)
- Trushna (Thirstyness)
- Alasya (Lazyness)
- Gaurava (Heavyness)
- Jwara (Fever)
- Apaka (Indigestion)
- Anga Sunata (Swelling)

Objective criteria

- DC, TLC
- ESR
- Rheumatoid Factor (RF)



SELECTION OF DRUGS AND PREPARATION METHOD

The selection of the drug was made on the basis of principle of treatment advocated by Yogaratnakara (Yogaratnakara, Grahani Nidan – Sarva Grahani Chikitsa, Sloka number 01, page number 284 and Amavata Chikitsa Page no.568)

NAME OF THE DRUG

1. Sunthyadi Kwatha
2. Panchakola Churna

INGREDIENTS

1.Sunthyadi kwatha – Sunthi, Musta, Ativisha, Guduchi

2.Panchakola churna – Pippali, Pippali moola, Chavya, Chitraka moola, Sunthi

PREPARATION METHOD

- The dried drug purchased from the local market and identified by the experts of Dept. of Dravyaguna.
- The drug Sunthyadi kwatha and Panchakola churna were prepared in mini pharmacy of Govt. Ayurvedic college & Hospital Balangir, Odisha.
- Dried raw materials of both formulations i.e. Sunthi, Ativisha, Musta & Guduchi for Sunthyadi kwatha and Pippali, Pippalimoola, Chavya, Chitraka, Sunthi for Panchakola churna were taken in equal quantity. Materials for Sunthyadi kwatha were done yavakuta for preparation of kwatha and materials of panchakola churna were powdered.
- The powder was obtained and passed through sieve to obtain fine powder.
- The fine powder of Panchakola churna and Yavakuta of Sunthyadi kwatha was packaged in an air tight packet.
- The drug has prepared under direct supervision of H.O.D Rasashastra and Bhaisajya kalpana, GAC & H, Balangir.

DOSE AND ADMINISTRATION PROCEDURE

1. Sunthyadi kwatha for oral use- 50 ml. twice daily in empty stomach

2. Panchakola churna for oral use- 5 gm. twice daily in empty stomach

Anupana – Ushnodaka

DIETARY REGIMEN:-All patients was adviced to take diet on basis of pathyapathya mentioned in Samhitas.

DURATION OF STUDY :- 30 days

FOLLOW UP

Follow up was done in every 15 days interval i.e. 15th and 30th day in the two groups. During the follow up both subjective and objective parameters of assessment was done to assess the result.

Observation and results

The research work was conducted after scrutinized by DRC and IEC and approved by competent authority of Sambalpur university. During research work the data were observed time to time and assessment was recorded as authentic document for dissertation. The constitutional data related to ayurvedic and demographic data related to age, sex, educational qualification etc. were observed during clinical study and put forth here in table and graphical form for easy understanding and proper presentation.

In this study 31 numbers of patients were registered. 15 patients were registered for treatment of Sunthyadi kwatha in group-A, 16 patients were registered for treatment of Panchakola churna in group-B. out of this 1 patient from group- B was left the study.

It has been observed that in this study 60.00% of patients were belonged to 36-40 years of age group, 93.33% were female, 100% were from Hindu religion, 100% were literate, 93.33% were married, 100% were belonging to middle class, 83.33% were housewife, 100% patients were having gradual mode of onset, 93.33% patients were having mixed dietary habit, 100% patients were having Vishamasana dietary habit, 66.67% patients were dominantly taking Katu & Amla rasa, 66.67% patients were having poor appetite, 70% patients were having mandagni, 100% patients were having sama praakruti, 100% Patients were belons from jangala desha, 100% patients were doing only routine work, 100% patients were having disturbed sleep pattern, 53.33% patients were having no addiction, 100% patients were having normal urination, 100% patients were having irregular bowel habit, 80% patients were having vata kaphaja sharirik prakruti.



Table No.: 01 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Angamarda of patients

Angamarda	Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	2.33	2.00	0.62	-3.771 ^c	0.00016	82.86	Sig
	AT	0.40	0.00	0.51				
Group B	BT	1.87	2.00	0.64	-3.520 ^c	0.00043	75.00	Sig
	AT	0.47	0.00	0.64				

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 02 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Aruchi of patients

Aruchi	Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.73	2.00	0.59	-3.286 ^c	0.00102	69.23	Sig
	AT	0.53	1.00	0.52				
Group B	BT	1.73	2.00	0.46	-3.742 ^c	0.00018	53.85	Sig
	AT	0.80	1.00	0.41				

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 03 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Trushna of patients

Trushna	Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	2.00	2.00	0.65	-3.508 ^c	0.00045	73.33	Sig
	AT	0.53	1.00	0.52				
Group B	BT	1.73	2.00	0.46	-3.557 ^c	0.00038	61.54	Sig
	AT	0.67	1.00	0.49				

From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 04 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Alasya of patients

Alasya	Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.80	2.00	0.41	-3.542 ^c	0.00040	74.07	Sig
	AT	0.47	0.00	0.52				
Group B	BT	1.73	2.00	0.46	-3.358 ^c	0.00079	61.54	Sig
	AT	0.67	1.00	0.49				

From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 05 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Gaurava of patients

Gaurava	Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.87	2.00	0.35	-3.626 ^c	0.00029	96.43	Sig
	AT	0.07	0.00	0.26				
Group B	BT	1.93	2.00	0.46	-3.542 ^c	0.00040	86.21	Sig
	AT	0.27	0.00	0.46				

From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 06 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Jwara of patients

Jwara	Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.33	1.00	0.49	-3.578 ^c	0.00035	95.00	Sig
	AT	0.07	0.00	0.26				
Group B	BT	1.33	1.00	0.49	-3.542 ^c	0.00040	100.00	Sig
	AT	0.00	0.00	0.00				



From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 07 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Apaka of patients

Apaka		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.93	2.00	0.46	0.08	-3.626 ^c	0.00029	93.10	Sig
	AT	0.13	0.00	0.35	0.06				
Group B	BT	1.93	2.00	0.46	0.08	-3.573 ^c	0.00035	96.55	Sig
	AT	0.07	0.00	0.26	0.05				

From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 08 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Angasunata of patients

Angasunata		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.60	2.00	0.63	0.11	-3.557 ^c	0.00038	66.67	Sig
	AT	0.53	1.00	0.52	0.09				
Group B	BT	1.20	1.00	0.41	0.07	-3.873 ^c	0.00011	83.33	Sig
	AT	0.20	0.00	0.41	0.07				

From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Table No.: 09 - Showing Comparison between effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Subjective parameters

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P-Value	Result
Angamarda	Group A	15	19.50	292.50	52.500	0.00023	Sig
	Group B	15	11.50	172.50			
	Total	30					
Aruchi	Group A	15	17.33	260.00	85.000	0.01411	Sig
	Group B	15	13.67	205.00			
	Total	30					
Trushna	Group A	15	18.27	274.00	71.000	0.00365	Sig
	Group B	15	12.73	191.00			
	Total	30					
Alasya	Group A	15	17.17	257.50	87.500	0.02103	Sig
	Group B	15	13.83	207.50			
	Total	30					
Gaurava	Group A	15	16.50	247.50	97.500	0.04169	Sig
	Group B	15	14.50	217.50			
	Total	30					
Jwara	Group A	15	15.00	225.00	105.000	0.06953	NS
	Group B	15	16.00	240.00			
	Total	30					
Apaka	Group A	15	15.10	226.50	106.500	0.07353	NS
	Group B	15	15.90	238.50			
	Total	30					
Angasunata	Group A	15	16.00	240.00	105.000	0.05501	NS
	Group B	15	15.00	225.00			
	Total	30					

Mann Whitney U Test is carried out for comparison between Group A and Group B. From above table, we can observe that, P-Value for almost parameters is less than 0.05. Hence, we can conclude that, there is significant difference between Group A and Group B.

Further, we can observe that **mean rank for Group A is greater than Group B**. Hence, we can conclude that, effect observed in **Group A is better than Group B**.



Table No.: 10 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Neutrophil of patients

Neutrophil		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	68.47	15	7.07	1.83	0.550	0.591	1.17	NS
	AT	67.67	15	3.74	0.96				
Group B	BT	67.47	15	5.67	1.46	1.935	0.073	2.37	NS
	AT	65.87	15	3.27	0.84				

From above table, we can observe that P-Value for Group A and Group B is greater than 0.05. Hence, we can conclude that, there is no significant change observed in Group A and Group B.

Table No.: 11 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Eosinophil of patients

Eosinophil		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	3.40	15	2.10	0.54	2.197	0.045	19.61	Sig
	AT	2.73	15	1.49	0.38				
Group B	BT	3.93	15	2.94	0.76	2.449	0.028	30.51	Sig
	AT	2.73	15	1.39	0.36				

From above table, we can observe that P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, there is significant change observed in Group A and Group B.

Table No.: 12 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Basophil of patients

Basophil		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	0.00	15	0.00	0.00	0.000	1.000	0.00	NS
	AT	0.00	15	0.00	0.00				
Group B	BT	0.00	15	0.00	0.00	0.000	1.000	0.00	NS
	AT	0.00	15	0.00	0.00				

From above table, we can observe that P-Value for Group A and Group B is greater than 0.05. Hence, we can conclude that, there is no significant change observed in Group A and Group B.

Table No.: 13 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Lymphocyte of patients

Lymphocyte		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	28.60	15	6.68	1.73	-0.554	0.589	2.80	NS
	AT	29.40	15	4.50	1.16				
Group B	BT	28.40	15	5.55	1.43	-3.696	0.002	9.39	Sig
	AT	31.07	15	3.58	0.92				

From above table, we can observe that P-Value for Group A is greater than 0.05 and Group B is less than 0.05. Hence, we can conclude that, there is no significant change observed in Group A and significant change observed in Group B.

Table No.: 14 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Monocyte of patients:

Monocyte		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	0.20	15	0.77	0.20	0.000	1.000	0.00	NS
	AT	0.20	15	0.56	0.14				
Group B	BT	0.20	15	0.56	0.14	0.000	1.000	0.00	NS
	AT	0.20	15	0.41	0.11				

From above table, we can observe that P-Value for Group A and Group B is greater than 0.05. Hence, we can conclude that, there is no significant change observed in Group A and Group B.

Table No.: 15 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on TLC of patients:

TLC		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	9300.00	15	1019.98	263.36	0.273	0.789	0.65	NS
	AT	9240.00	15	857.57	221.42				
Group B	BT	9376.67	15	797.96	206.03	1.475	0.162	1.49	NS
	AT	9236.67	15	603.70	155.87				

From above table, we can observe that P-Value for Group A and Group B is greater than 0.05. Hence, we can conclude that, there is no significant change observed in Group A and Group B.



Table No.: 16 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on ESR of patients

ESR		Mean	N	SD	SE	t-Value	P-Value	% Change	Result
Group A	BT	51.47	15	26.40	6.82	4.213	0.001	23.45	Sig
	AT	39.40	15	32.11	8.29				
Group B	BT	38.40	15	10.66	2.75	8.632	0.000	28.47	Sig
	AT	27.47	15	9.09	2.35				

From above table, we can observe that P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, there is significant change observed in Group A and Group B.

Table No.: 17 - Showing Comparison between effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on Objective parameters

Variable	Group	N	Mean Diff	SD	SE	t-Value	P-Value	Result
Neutrophil	Group A	15	0.800	5.634	1.455	-0.478	0.636	NS
	Group B	15	1.600	3.203	0.827			
Esinophil	Group A	15	0.667	1.175	0.303	-0.926	0.363	NS
	Group B	15	1.200	1.897	0.490			
Basophil	Group A	15	0.000	0.000	0.000	0.000	1.000	NS
	Group B	15	0.000	0.000	0.000			
Lymphocyte	Group A	15	0.800	5.596	1.445	-1.156	0.258	NS
	Group B	15	2.667	2.795	0.722			
Monocyte	Group A	15	0.000	1.000	0.258	0.000	1.000	NS
	Group B	15	0.000	0.378	0.098			
TLC (/cumm)	Group A	15	60.000	851.931	219.968	-0.334	0.741	NS
	Group B	15	140.000	367.521	94.893			
ESR (mm/hr.)	Group A	15	12.067	11.094	2.864	0.362	0.720	NS
	Group B	15	10.933	4.906	1.267			

Unpaired t-test is carried out for comparison between Group A and Group B. From above table, we can observe that, P-Value for almost parameters is greater than 0.05. Hence, we can conclude that, there is no significant difference between Group A and Group B.

Table No.: 18 - Showing effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B) on RA factor of patients

RA Factor	Group A		Group B	
	BT	AT	BT	AT
Reactive	3	3	2	1
Non-Reactive	12	12	13	14
TOTAL	15	15	15	15

From the above table we can clearly see that Reactive RA factor was very minimal in the collected data from both groups. There were no significant changes before and after treatment except 1 patient from group- B after treatment got RA factor non-reactive.

Table No.: 19 - Showing Comparison between overall effect of Sunthyadi kwatha (group- A) and Panchakola churna (group- B)

Overall Effect	Group A		Group B	
	N	%	N	%
Marked Improvement	10	66.67%	8	53.33%
Moderate Improvement	5	33.33%	7	46.67%
Mild Improvement	0	0.00%	0	0.00%
No Improvement	0	0.00%	0	0.00%
TOTAL	15	100.00%	15	100.00%

It has been revealed that in both group no patients are under Mild and No improvement zone. 5 patients i.e. 33.33% from Group-A and 7 patients i.e. 46.67% from Group- B were shown Moderate improvement, 10 Patients i.e. 66.67% from Group -A and 8 Patients i.e. 53.33% from Group – B were shown marked improvement.



DISCUSSION

Probable mode of action of Sunthyadi kwatha and Panchakola Churna on subjective parameters:

Angamarda

In this trial all the patient has the symptom Angamarda in both groups. Some has got total relief and some has got moderate relief. Laghu guna, Ushna virya, Kapha Vatahara and shulaghna property of Sunthyadi kwatha and Panchakola Churna helped to relief from Angamarda. There was 82.86% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 75% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Aruchi

In this trial all the patient has the symptom Aruchi in both groups. Some has got total relief and some has got moderate relief. Tikta & Katu rasa is dominantly present in both Sunthyadi kwatha and Panchakola Churna helped to relief from Aruchi because both rasa have Aruchi nashak property. There was 69.23% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 53.85% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Trushna

In this trial all the patient has the symptom Trushna in both groups. Some has got total relief and some has got moderate relief. Tikta & Katu rasa, Ushna virya and the method of administration of Sunthyadi kwatha and Panchakola Churna i.e. one is in Kashaya form and another is with ushna jala helped to relief from Trushna because Katu rasa clears the obstructions from srotas and Tikta rasa has trushna prashaman property. There was 74.07% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 61.54% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Alasya

In this trial all the patient has the symptom Alasya in both groups. Some has got total relief and some has got moderate relief. Katu rasa, Laghu guna, Ushna virya, Kaphavatahara Prabhava of Sunthyadi kwatha and Panchakola Churna helped to relief from Alasya because Katu rasa activates the indriyas and Laghu and Ushna guna tends to get activate. There was 73.33% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 61.54% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Gaurava

In this trial all the patient has the symptom Gaurava in both groups. Some has got total relief and some has got moderate relief. Katu Tikta rasa, Laghu Rukshya guna, Ushna virya, Kaphavatahara Prabhava of Sunthyadi kwatha and Panchakola Churna, all combinedly helped to get relief from Gaurava because of their respective properties. There was 96.43% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 86.21% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Jwara

In this trial all the patient has the symptom Jwara in both groups. Some has got total relief and some has got moderate relief. Katu Tikta rasa of Sunthyadi kwatha and Panchakola Churna, helped to get relief from Jwara because of jwara nashaka property of Tikta rasa and Katu rasa clears the blockage from all the channels and Indriyas. Laghu guna, Ushna virya and the method of administration helped to relief from this symptom. There was 95% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 100% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Apaka

In this trial all the patient has the symptom Apaka in both groups. Some has got total relief and some has got moderate relief. Katu Tikta rasa, Ushna virya of Sunthyadi kwatha and Panchakola Churna helped to get relief from Apaka because of their Deepana and Pachana karma. There was 93.10% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 96.55% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.

Angasunata

In this trial all the patient has the symptom Angasunata in both groups. Some has got total relief and some has got moderate relief. Katu Tikta rasa, Ushna virya, Kaphavatahara Prabhava of Sunthyadi kwatha and Panchakola Churna helped to get relief from Angasunata because of their Sothahara properties. There was 66.67% mean percentage of improvement in Group- A and statistically significant with p-value <0.05. There was 83.33% mean percentage of improvement in Group- B and statistically significant with p-value <0.05.



Discussion on overall effect of therapy

When the data was analysed for overall result of therapy the following observations were made.

- Marked improvement was seen in 10 patients (66.67%) in Group A and 8 patients (53.33%) in Group B.
- Moderate improvement was seen in 5 patients (33.33%) in Group A and 7 patients (46.67%) in Group B.
- Overall, 18 patients i.e. 60.00% were got marked improvement, 12 patients i.e. 40.00% were got moderate improvement as a result of final outcome of this clinical study.
- During the entire duration of therapy, there was not any adverse / untoward effect or adverse drug reactions (ADRs) observed for both the trial groups.
- Here Group A showed better result in overall total parameters.

CONCLUSION

At the end of the study, following conclusion can be drawn on the basis of observations made, Results achieved and thorough discussion in the present context and can be Summarized as below:

- The concept of Ama is prevailing since Vedic period. Reference about Sandhi Vikriti caused by Sleshma Vikriti is available in Atharvaveda.
- From this study, it is concluded that compliance of unhealthy Ahara and Vihara, plays a major role in causation of disease. Hence, we can say that code and conduct of healthy Ahara and Vihara (Sadvritha and swasthavritta) must be followed to achieve early and better results of the disease.
- Sunthyadi kwatha and Panchakola churna contains drugs having mainly katu, tikta rasa with dominancy in rukshya, laghu guna, ushna virya and Kaphavata hara properties.
- Effect of the medicine i.e. Sunthyadi kwatha is more significant than Panchakola churna and showed remarkable symptomatic relief in the features of Amavata.
- This observation needs to be studied in more number of patients for better opinion to manage Amavata.

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CONFLICTS OF INTEREST

Nil.

DATA AVAILABILITY

This is an original manuscript and all data are available for only research purposes from principal investigators.

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