



# International Journal of Ayurveda and Pharmaceutical Chemistry

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*Volume 7 Issue 2 2017*

[www.ijapc.com](http://www.ijapc.com)



### To Study the Efficacy of *Amaltas Kwath* in *Ek Kushtha*

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#### ABSTRACT

Ekkushta is a type of Kshudrakushtha described in Ayurveda . It is a Vata-kaphaj disorder. The clinical symptoms of Ekkushta described in Ayurveda resembles with the clinical symptoms of Psoriasis. The clinical features of Ekkushta described by Charak and Kashyap represent remission, relapse and seasonal variation which are present in Psoriasis. It is one of the common dermatological problems in the world. Aragwadha is basically kushthaghna and vishaghna. This agad was administered orally to treat Ekkushtha. This study was an attempt to assist the medical fraternity in tackling the situation by the optimum utilization of kushthaghna and vishaghna karma of AmaltasKwatha.

#### KEYWORDS

*Ek Kushtha* , *Psoriasis*, *Aragwadh Kwatha*, *Amaltaskwatha*



**Greentree Group**

Received 26/07/17 Accepted 15/08/17 Published 10/09/17



## INTRODUCTION

Dushivisha is any kind of toxic or nontoxic substance which remains in body for a long time and creates its toxic effects very slowly<sup>1</sup>. Dushivisha specially make dushana of Raktadhatu which causes various skin diseases like Kushtha, kotha etc<sup>2</sup>. The faulty routines and food habits tend to create Dushivisha<sup>3</sup>.

The effect of this Viruddha Ahara is indifferent from the Ahita Ahara, but may be included under the Ahita Ahara group. Articles of diet that are not suitable to the body-elements tend to disagree with the system (body).

Dushivisha caused by Viruddhahara is a potent causative factor for several diseases. Consumption of Viruddhahara gives rise to various disturbances of mild to violent nature and disease of acute to chronic nature including the eight Maharogas and various skin problems like Kushtha. This points towards the potency and hazardous effect of Viruddha ahara. This has turned out to be a burning problem for Ayurveda and modern science.

Psoriasis is a papulosquamous dermatosis with spontaneous remission, relapse and seasonal variations<sup>4</sup>. It clinically presents with lesions of varying size and configuration, distributed all over the body

with silvery (fishy) scales and the affected don't get sweat.

Amaltaskwatha also known as Aragwadhkwatha is a formulation used to treat vataja and kaphaja Kushtha<sup>1-2</sup>. Cha. Su 7/80.

## AIMS AND OBJECTIVES

**Aim:** - To study the efficacy of Amaltas Kwath in Ek Kushtha.

## OBJECTIVES

1. To prepare Amaltas Kwatha as per s.o.p.
2. To conduct clinical evaluation of Amaltas Kwatha on Ek Kushtha.
3. To study Ek Kushth and co-relate with Psoriasis.

## MATERIALS AND METHODS

Material: A. Amaltas Legumes were taken as shown in Table 1 for drug preparation (Kwatha) from the GMP certified Ayurvedic Pharmacy.

**Table 1** Quantity of ingredients while preparing kwath

S. No.	Sanskrit Name	Latin Name	Quantity
1.	Amaltas	Cassia Fistula	1 Part
2.	Water		16 Part

B. Equipment: Khala, steel pot, stove, stirrer, mesh.



C. Thirty patients were selected from OPD on the basis of clinical diagnosis and were treated for the duration of six weeks.

Method:

A) Drug formation a. Raw material, which is Amaltas fruit (legumes) was taken from GMP certified Ayurvedic Pharmacy. Twenty kgs of legumes were brought as raw material.

B) This Amaltas fruits were neatly broken into pieces as it has hard external covering. Big pieces were again broken into small pieces and easily crushed into *Bharad* Churn. The formed raw material was then crushed to become *Bharad* Churn as needed for further processes. Expecting 20ml of Kwath preparation for a patient, 5gms of *bharad* churn were taken per patient on an average.

C) Now water was added to *bharad* churna (As per the table no 1). This mixed preparation was allowed to get heated with medium power of heat. According to mentioned Kwathkalpana in *Samhitas*, the preparation was heated to get reduced up to  $\frac{1}{4}$  of the taken mixture. The formed mixture was Kwath of Amaltas or AmaltasKwath.

D). This Kwath was then cooled. After confirmation of all standard processing related to Kwath, it was stored in air packed container. This Kwath was then taken for

analytical studies in the laboratory. After certain analytical criteria studies, the standardized AmaltasKwath was ready as a medicine to patients of DushivishaJanya EkKushtha.

E) For each patient, Fresh Kwath was prepared according to s.o.p. and administered to the patients registered in our institute for this study. All aseptic precautions were followed while preparation of Kwath such as cleaning of equipments etc. No other Anupana was given after AmaltasKwath.

#### B) Clinical Study

Thirty patients clinically diagnosed with Ek kushtha were selected from OPD of our institute for this study. After taking informed consent, patients were administered Kwatha orally. Weekly follow-up was taken of each patient up to 6 weeks.

#### Criteria for Inclusion

- a) Age -20 to 40 years
- b) Sex – either sex
- c) Patients having Ek kushtha

Dose given: AmaltasKwath 10ml orally once in the morning. Observation period: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> week.

Duration of study: 6weeks.

#### Parameters gradation –

**Table 2** Gradation of Aswedanam *Aswedanam*

Normal sweating	0
Normal sweating after exercise	1



mild sweating after exercise	2
No sweating after exercise	3
Table no 3 Gradation of Matsyakalopam Matsyashakalopam (Scaling):	
No scaling	0
Mild scaling by rubbing itching	1
Moderate scaling by itching rubbing	2
Severe scaling with / without itching/rubbing	3

**Table 4** Gradation of Krushna-Arunavarna Krushna-Arunavarna (Erythema)

Normal color	0
Near to normal /Reddish	1
Slight black	2
Deep black reddish	3

**Table 5** Gradation of Rukshata Rukshata

No rukshata	0
Faint line rukshata	1
Lining and even words can written	2
Excess/ Crack formation	3

**Table 6** Gradation of kandu Itching (Kandu):

No	0
Mild/occasional	1
Moderate	2
Severe	3

**Table 7** Gradation Of induration of lesions:  
Induration of lesions:

No	0
Mild	1
Moderate	2
Severe	3

**Table 8** Gradation of Area affected Area:

No Scales	0
0-5cms	1
5-10cms	2
10-15cms	3

#### Criteria for Exclusion

- a) Patients of burns
- b) Patients with severe infectious diseases
- c) Patients having pregnancy, cardiac disease, piles, fistula, renal disease and

endocrinal disorders were excluded to avoid overlapping of symptomatology.

d) Patients of psoriatic arthropathy and psoriatic erythroderma.

#### Discontinuation Criteria

- i) Incidence of any life threatening disease.
- ii) Patients, who were not attending regular follow up.

2. Place of Study: OPD of Loknete Rajarambapu Patil Ayurvedic Medical College, Hospital, Post Graduate Institute & Research centre, Islampur, Tal. Walwa, Dist. Sangli.

## RESULTS

Total patients suffering from EkKushtha, fulfilling the inclusion criteria were registered in this study. Hetus, lakshana according to Ayurveda and Etiological factors, symptoms according to modern of 30 patients were examined thoroughly and noted neatly. Observations were recorded to understand efficacy of AmaltasKwath on EkKushtha. Parameters of Aswedanam, erythema (krushna-arunvarna), itching (kandu), scaling (matsyashakalopam), induration etc. are observed and discussed.

Observation no. 1

SEX:- Out of 30 patients in study, maximum no. of patients was male. There were 76.67% of male and 23.33% of female.



#### Observation no. 2

Classification of patients having DushiVishaJanyaEkKushtha according to Janmadesh. Janmadesh :- Out of 30 patients of EkKushtha 66.67% were from Anupdesha and 33.33% were of sadharandesha. No patients were found from Jangaldesh.

#### Observation No. 3

Classification of patients having EkKushtha according to Vyadhidesha. Vyadhidesha :- Out of 30 patients 66.67% were from Anupdesha and 33.33% were from sadharandesha. No patients were found from Jangaldesh.

Vyadhidesha No. of patients from

1)Anupdesha- 20 2)Jangaldesha- 0 3) Sadharandesha- 10

#### Observation No. 4

Total Patients distribution having Ekkushtha according to Age groups. Age Group:- Out 30 patient 6.67% patient were from 20-25 Year of age group, 33.33% from 25-30 years of age group and 23.33% from 30-35 years of Age Group and 36.67% from 35-40years of age.

#### Observation No. 5

Patients of EkKushtha according to Occupation: Occupation:- 30 patients are from following class. Occupation of Patients were

A. Student - 04 B. Farmer - 10 C. Servant - 04 D. Housewife - 06 E.

Shopkeeper- 03 F. Labour - 02 G. Tailor - 01

Maximum patient were Farmer (33.33%), Housewife (20%) after that Student (13.33%) and Servant (13.33%)

#### Observation No. 6

Prakritis of Patient having EkKushtha

Maximum score were found in Vata-KaphaPrakruti 16, Pitta-KaphaPrakruti were 09. Vata-pitta were -5

#### Observation No. 7

Classification of patient having EkKushtha according to their dietary habit of Vegetarian or Non-vegetarian. Vegetarian or Non Vegetarian:- Out of 30 patients of EkKushtha 26.67% were Vegetarian and 73.33% were Non-vegetarian.

#### Observation No. 8

Classification of patient having EkKushtha according to their Socio economic Status. Socio-economic Status :- Out of 30 patients 16.67% were from Low socio economic class, 70% were from Middle socio economic class and 13.33% were from High socio economic class.

**Table 9** Properties of AmaltasKwath:

Sr. No.	Parameter	Unit	Value
1.	Colour	-	Dark Brown
2.	Odour	-	Characteristic
3.	Taste	-	Sweet
4.	Acidity(as Citric acid)	%	00.12
5.	Viscosity	Cp	01.17
6.	Water Soluble extract	%	04.18



7.	Alcohol Soluble extract	%	04.04
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Observation of parameters:

Aswedanam:

**Table 10** Effect of treatment on Aswedanam

Aswedanam	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T.	A.T			
	2	1	-4.774a	0	Significant

From table no 10 ,Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Aswedanam.

Median value is significantly reduced from 2 to 1 after treatment.

Erythema (Krushna-Arun Varna):

**Table 11** Effect of treatment on Krushna-Arunavarna

ERYTHEMA	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T.	A.T			
	1	0	-5.000a	0.00	Significant

From table no 11 ,Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Erythema (Krushna-Arun Varna). Median value is significantly reduced from 1 to 0 after treatment.

Scaling (Matsyashakalopam):

**Table 12** Effect of treatment on Matsyashakalopam

Scaling	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T.	A.T			
	2	1	-3.873a	0.00	Significant

From no 12 ,Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Scaling (Matsyashakalopam). Median value is significantly reduced from 2 to 1 after treatment.

Itching (Kandu):

**Table no 13:** Effect of treatment on Itching (Kandu)

Itching	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T.	A.T			
	2	1	-4.774a	0.00	Significant

From table no 13, Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Itching (Kandu).

Median value is significantly reduced from 2 to 1 after treatment.

Area affected

**Table 14** Effect of treatment on affected Area

Area	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T.	A.T			
	2	1	-3.162a	0.002	Significant

As seen in table no 14, Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Area. Median value is significantly reduced from 2 to 1 after treatment.

Induration:

**Table 15** Effect of treatment on Induration

Induration	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T.	A.T			
	1	0	-4.716a	0.00	Significant

As seen in table no 15,Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that effect of AmaltasKwath is significant on Induration. Median value is significantly reduced from 1 to 0 after treatment.

Remission in all symptoms:

**Table 16** Effect of treatment on Remission in all symptoms



Remission in all symptoms:	Median		Wilcoxon Signed Rank W	P-Value	Result
	B.T	A.T			
	3	1	-4.524a	0.00	Significant

Using Wilcoxon Signed Rank Test, P-Value is less than 0.05(table no 16.) hence we conclude that Effect of AmaltasKwath is significant on Remission in Symptoms. Median value is significantly reduced from 3 to 1 after treatment.

## DISCUSSION

1. Clinical study was done on 30 patients; out of them 76.67% were male and 23.3% were females. From this observation, we realize that males were more affected as compared to that of the females. Male patients working outdoor hammer the dietary habit and their lifestyle. During driving, official work, teaching or at any responsible posts, they didn't get time for healthy diet and unfortunately they have to eat non edibles which ultimately cause undigested food for long time and create Dushivisha and simultaneously EkKushtha.

2. When all patients included in the study were classified as per their Janmadesha i.e., Anup, Sadharan and Jangal; we observed that the ratio for the patients born in AnupDesha and Sadharandesh is 2:1. That means 20 patients were from AnupDesha and 10 from SadharanaDesha.

3. When all patients included in the study were classified as per their Vyadhidesha i.e., Anup, Sadharan and Jangal; we observed that the patients from AnupDesha (20) were more prone to EkKushtha than of the others. Anupdesha is Kaphapradhan. AnupDeshamay be accepted as one of the causative factor for the formation of EkKushtha.

4. When all patients included in the study were classified as per their Marital Status, we observed that most of the patients were married about 86.67%. Marital status of the patients was not found significant.

5. When all patients included in the study were classified as per their Religion, we observed that most of the patients were Hindu about 80%. Religion of the patient was not found to be significant.

6. When all patients included in the observational study were classified as per their age groups i.e. 20-25 years, 25-30 years, 30- 35years and 35-40 years. There were majority of patients were found in any 30-35 and 35-40 age group. This is indicated that incidence is higher in 4th decade of life. No Specific cause can be attributed. Even the current demographic data suggests the peak incidence for 4th decade of life and further.





7. In this clinical study when groups were made as per the profession; 4 patients were students, 10 patients were farmers, 4 patients were servants, 6 patients were housewife, 3 patients were shopkeepers and 2 patients were labours and 1 patient was tailor. Heavy work load, mental stress, and busy professional life, dietary habit get affected. In the above patients habit of eating junk food like *vadapaw*, Chinese food, *Abhishyandiahar* like curd rice was seen.

8. When patients included in the study were distributed according to their Prakrutis; Patients with Vata-Kaphajprakruti got readily affected by vyadhidesh and Vata-KaphaJanyaaahar. As their doshas were vitiated by similar factors for the formation of EkKushtha, Vata and Kapha are predominant Dosha. It seems that when predominating Vata-KaphaDosha of persons were vitiated by other factors, it causes Raktadhatudushti and this resulted into EkKushtha.

9. Maximum no. of patients were non vegetarian i.e. 73.33%. This also shows the geographical dominance of non-vegetarians in this region. The report shows that the consumption of non-vegetarian foods followed by milk or milk products becomes Viruddhahar. Example: Fish and milk taken together in equal quantity is Viruddhahar,

Dishivisha and results in psoriasis. This Viruddhahar is initiation of Dushivisha, which later may cause Ekkushtha.

10. In the present study 33.33% patients had already taken treatment. They had taken Allopathy, Ayurvedic and Unani medicines before coming to our institute for treatment, but followed by no relief. However, they got improvement after use of AmaltasKwath. This might be concluded that AmaltasKwath is better than some other treatments on psoriasis.

11. When comparing Socio-economic status with incidence of EkKushtha, it was seen that out of 21 patients of middle Socio-economic class having EkKushtha, 71.42% Patient were consuming non vegetarian diet whereas 23.8% patients had some addictions.

13. Ayurvedic symptom Krushna-Arun Varna is similar to Erythema of modern concept. Using Wilcoxon Signed Rank Test, P Value is less than 0.05 hence we conclude that effect of AmaltasKwath is significant on Erythema. Median value is significantly reduced from 1 to 0 after treatment.

14. Matsyashakaopam means Scaling in modern parameters. Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that effect of AmaltasKwath is significant on Scaling. Median value is



significantly reduced from 2 to 1 after given treatment. Similar results were found for Rukshata. Median value reduced from 2 to 1.

15. Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Itching (Kandu). Median value is significantly reduced from 2 to 1 after treatment. Also Aswedanam got similar results as Kandu.

16. Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Area. Median value is significantly reduced from 2 to 1 after treatment.

17. Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Induration. Median value is significantly reduced from 1 to 0 after treatment.

18. Using Wilcoxon Signed Rank Test, P-Value is less than 0.05 hence we conclude that Effect of AmaltasKwath is significant on Remission in Symptoms. Median value is significantly reduced from 3 to 1 after treatment.

19. The significant use of the AmaltasKwath was observed as Agad in DushivishJanyavyadhi.

## CONCLUSION

On the basis of the present study, following conclusion can be drawn. AmaltasKwath proved to be mildly effective in reduction of few signs and symptoms. All symptoms were not cured completely. There is decrease in few symptoms amongst them. Only one patient got 100% result as the symptoms were not chronic and severe while origin of disease was gradual. There were no side effects noticed of the given treatment in any of the patients of the study group. Itching, erythema, aswedanam have moderate remission rate whereas scaling, rukshata, area, induration have low remission rate with treatment of AmaltasKwath. In this study, the dose of AmaltasKwath used was less and no anupana were used. The patients with non-vegetarian diet found more prone to Dushivishajanya EkKushtha.

Scope for further study- The present clinical study suggests that a raised dose & longer duration of AmaltasKwath with proper kushthaghnadravya anupana may give better relief to the patients of Dushivishajanya EkKushtha. AmaltasKwath can be studied as an agad in other Dushivishahetujanya vyadhi.



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### Abbreviations

- A.H.Chi. :AshtangaHridayaChikitsasthana ♣  
A.H.Ni. :AshtangaHridayaNidanasthana ♣  
A.S.Su. :AshtangaHridayaSutrasthana ♣  
Cha.Chi. :CharakSamhitaChikitsasthana ♣  
Cha.Su. :CharakSamhitaSutrasthana ♣  
Ka.Si. : KashyapSamhitaSiddhisthana ♣  
Ka.Chi. :KashyapSamhitaChikitsasthana ♣  
Ma.Ni.Pu. :MadhavaNidanaPurvardha ♣  
Ma.Ni.U. :MadhavaNidanaUttarardha ♣  
Sha.Pu. :SharangadharSamhitaPurvkhanda ♣  
Sha.Ma.  
:SharangadharSamhitaMadhyakhanda ♣  
Su.Su. :SushrutaSamhitaSutrasthana ♣  
Su.U. :SushrutaSamhitaUttaratantra ♣