Full Length Research Paper

A COMPARATIVE STUDY OF SHANKH BHASMA AND GUDUCHI SATVA IN URDHVAG AMLAPITTA PATIENTS ALONG WITH ANUPAN KOSHN JALA

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Abstract

Aim: A Comparative Study of Shankh Bhasma and Guduchi Satva in Urdhvag Amlapitta patients along with anupan koshn jala
Objective:
- To assess the efficacy of Shankh Bhasma in Urdhvag Amlapitta patients.
- To assess the efficacy of Guduchi Satva in Urdhvag Amlapitta patients
- To compare the efficacy of Shankha Bhasma and Guduchi Satva in
- Urdhvag Amlapitta patients.
- To assess the disease according to aetiological factors.
- To assess the efficacy of drugs in view of symptoms of patient.
- To assess any other associated benefits as well as side effects.
Method: After complete examination and investigations, all the patients was randomly divided into two groups –
I. Group A: In this group 30 patients was treated with Shankha Bhasma with Anupana Koshna Jala.
II. Group B: In this group 30 patients was treated with Guduchi Satva with Anupana Koshna Jala.
Assessment Criteria: For symptoms - subjective parameters was considered. For signs - Appropriate clinical parameters was considered. Grading & Scoring For Symptoms & Signs.
Types of study Clinical Study
Period of Study Total 30 days
Follow Up – Both groups was examined time to time for expected results.
1st follow up - 10th Day
2nd follow up - 20thDay
3rd follow up - 30th Day
Results: In Urdhvag Amlapitta the efficacy of treatment with Shankha Bhasma is equal to the efficacy of treatment with Guduchi satva as per statistical analysis. But percentage wise result of Guduchi Satva is better than Shankha Bhasma.
Statistical Analysis: The Statistical Analysis reveals that In Urdhvag Amlapitta the efficacy of treatment with Shankha Bhasma is equal to the efficacy of treatment with Guduchi satva. But percentage wise result of Guduchi Satva is better than Shankha Bhasma.
Conclusion: In Urdhvag Amlapitta the efficacy of treatment with Shankha Bhasma is equal to the efficacy of treatment with Guduchi satva. But percentage wise result of Guduchi Satva is better than Shankha Bhasma.

Keywords:

INTRODUCTION

In the ancient science of Ayurveda the Great Acharya Charaka has advised that one should follow the rules regulations of Swasthavritta to have a healthy mind body and soul and which further leads to happiness, prosperity and long life. The great economist Adam Smith has told that, the needs of human being are infinite but the availability is less to fulfill. Our life

style has been drastically changed and our growing needs have no end. Speed and accuracy are the prime demands of modern era. To cope up with this situation everybody have to face hectic, competitive and stressful life. People cannot pay attention to their physical and mental health. Irregular food habits, suppression of natural urges, lack of proper sleep and less time for relaxation and increased dependence on addiction like tobacco and alcohol are being part of our life, which enhances incidences of many diseases mainly having psychosomatic origin are increasing due to urbanization, high industrial growth, deforestation at a drastic speed. Amlapitta is one of the major diseases caused by life style change and its prevalence is increasing day by day. In modern science the disease is caused by irregular food habits, addiction of alcohol and tobacco, microorganisms like E-coli and certain idiopathic factors which lead to dyspepsia.

The treatment in allopathy depends on antacids and some other drugs which aim to reduce the hyperacidity, which only gives temporary relief from the problem. But in Ayurveda, the principle of treatment is to remove the root cause of the problem and to give long lasting effect. Charaka and Kashyapa have clearly indicated that the Grahani Dosha and Amlapitta occur in the persons who could not check the temptation of food. Ajirna after encountering the specific Doshas and affinity with specific site may cause various diseases. Annavisha produced due to Ajirna when mixes with Pittadi Dosha and lodges in Amashaya then it produces the Amlapittadi diseases. Charaka has explained the sequential progression of diseases of Annavahastrotas to which Sangraha Granthakara has given a separate disease status. In Samhita, Amlapitta is not mentioned as a separate disease entity but there are several references in Charaka Samhita regarding Amlapitta.Madhavakara and Kashyapa have described this disease as a separate entity with detailed description. Later workers followed the same. Kashyapa has accepted the involvement of three Doshas in Amlapitta while Madhavakara has accepted the dominance of Pitta in this disease. This disorder is the result of Grahani Dosha.

The first and foremost task in Ayurvedic disease management is a proper understanding and description of its etiopathogenesis. In this respect Acharya Charaka has told that Agni is responsible for Ayu, Varna, Bala, Swasthya, Utsaha, Upachaya, Prabha, Ojo & Teja and it also gives the importance as long life in the functioning state and even death, nonfunctioning state of Agni. Also Acharya Charaka and Acharya Vagbhata has clearly defined the roleof Agni in the etiopathogenesis of all the human ailments.Hence stabilized state of agni is most important thing to maintain healthy state of body i.e to remain Swasth. In Our Granthas the acharya suggested shodhan as well as shaman chikitsa for Amlapitta but as we said Nidan Parivarjan is always the best line of treatment. Here the study is concentrated to study the details about disease Amlapitta and its management by Shamanoushadi like SankhBhasma and Guduchi Satva on comparative basis. As Shodhan removes the vitiated doshas from the body from the roots but in amlapitta a small amount of hetusevan can cause relapse of the same lakshanas seen in Amlapitta. Hence the study was concentrated on the results of shaman chikitsa in Amlapitta by using two different drugs.

Aim and Objectives

Aim: A Comparative Study of Shankh Bhasma and Guduchi Satva in Urdhvag Amlapitta patients along with anupan koshn jala.

Objectives

- To assess the efficacy of Shankh Bhasma in Urdhvag Amlapitta patients.
- To assess the efficacy of Guduchi Satva in Urdhvag Amlapitta patients
- To compare the efficacy of Shankha Bhasma and Guduchi Satva in
- Urdhvag Amlapitta patients.
- To assess the disease according to aetiological factors.
- To assess the efficacy of drugs in view of symptoms of patient.
- To assess any other associated benefits as well as side effects.

MATERIALS AND METHODS

Selection of Patients: Patients were selected with lakshnas of Amlapitta irrespective of their age, sex, religion etc. Patients where then subjected to detailed clinical history on the basis of specially prepared case Performa. Selection of patients is done randomly as per rules of statistics.

For present study, patients are selected from-

1) Patients from Kayachikitsa OPD
2) Volunteers from college & hospital premises
3) Patients in medical camps organized by college & hospital authorities.
4) Study was carried out after appropriate counseling of the patients and informed written consent from the patients.

Inclusion Criteria – 1**:** Patients showing the classical sign and symptoms of Urdhvag Amlapitta was selected for the study.
2. Patients of age group above 20 yrs. and below 60 yrs. was selected for the study.
3. Patients of both sex are selected.

Clinical history of patients will be taken in special prepared case-sheet Performa.

Exclusive Criteria – 1: Patients of age group below 20 yrs. and above 60 yrs. Was excluded from the study.
2. Irregular patients not providing proper data was excluded.
3. Patients suffering from chronic diseases such as Hiatus hernia, Gastric ulcer, Diabetes, Hypertension, IHDs, Chemotherapy and Major Operative   Procedures etc. was excluded.

Selection of Drugs: As per reference stated above Shankh Bhasma is of shit and grahi guna, In Amlapitta Drava and Sara guna of pitta increases along with amla rasa so drug was selected for study as rogaghnta for Amlapitta which is clearly mentioned in text.

Anupana – Koshn Jala: Authentication & standardization of Shankh Bhasma and Guduchi Satva has been done from government approved laboratory.
METHOD: After complete examination and investigations, all the patients was randomly divided into two groups – **I.**

Group A: In this group 30 patients was treated with Shankha Bhasma with Anupana Koshna Jala.
II. Group B: In this group 30 patients was treated with Guduchi Satva with Anupana Koshna Jala.

Parameters for assessment Grading and scoring: For symptoms - subjective parameters was considered. For signs - Appropriate clinical parameters was considered. Grading & Scoring For Symptoms & Signs.

Scoring- 0: Normal / absence of signs & symptoms,
1 – Mild, 2 – Moderate, 3 – Severe

Symptoms

Vanti –

0 - Absent
1 – 1 episode / day   OR once/wk OR less quantity OR 2-3 times/wk OR
2 - 2-3 episode / day   Moderate
3 - 3-4 episode/ day   OR > 3 times/wk OR Profuse.

2) For (Shiroruja, Kar-charan Daha, Sarvang Daha, Hrid-Kantha Daha,   Trikta - Amla   Udgar,   Kandu,   Aruchi, Utklesh) (Subjective information)

0 - Absent
1-occasional
2-Intermittent
3-Continuous - Affecting routine work

Signs

Jvar-   0 - Absent
          1 - 99^0-100^0 F
          2 - 101^0-103^0 F
          3 - $>103^0$ F

Mandal-   0 - Absent
          1 - 1-2 mm
          2 - up to 3 mm
          3 - up to 5 mm

Pidaka –   0 - Skin colour
          1 - Hyperaemic
          2 - Red
          3 - Dark Red.

After diagnosis of the patients, the study was intervened by the administration of Shankh Bhasma and Guduchi Satva in two different groups.

Group A:	Shankh Bhasma
Group B:	Guduchi Satva

Group-A:

Drug   : Shankh Bhasma
Dose   :Capsule 250 mg BD
Anupana   :Koshna Jala
Kal   :Vyanodane
Duration   :30 days
Follow up   :Once/10 days

Group-B:
Drug   : Guduchi Satva
Dose   : 250 mg BD
Anupana   : Koshna Jala
Kal   : Vyanodane
Duration   : 30 days
Follow up   : once/10 days

The effects of 'Shankh Bhasma' and 'Guduchi Satva' were assessed in regards to the clinical signs and symptoms on the basis of grading and scoring systems and overall improvement; based on subjective information provided by the patients.

Types of study Clinical Study
Period of Study Total 30 days
Follow Up – Both groups was examined time to time for expected results.

1st follow up - 10th Day
2nd follow up - 20thDay
3rd follow up - 30th Day

Assessment of clinical results: Detailed clinical observations was done on every week for assessment of results. The final data was divided in five groups

Complete Remission:	100% relief in signs and symptoms.
Marked Improvement :	>75% <100% relief in sign and symptoms
Moderate Improvement	>50% to< 75% relief in sign and symptoms
Mild Improvement	>25% and <50% relief in sign and symptoms
Unchanged :	< 25% relief in sign and symptoms

OBSERVATIONS

Table 5.1. Age wise distribution of 60 patients of Urdhvag Amlapitta

Age[Yrs]	No. of Patients		Total	%
	Group A	Group B		
20-30 yrs	7	9	16	26.66
31-40 yrs	12	12	24	40.00
41–50yrs	8	4	12	20.00
51-60yrs	3	5	8	13.37

Maximum no. of patients i.e. 40.00% were from the age group of 31 – 40 years, 26.66% of patients were from age group 20-30 years , 20.00% of patients were from age group of 41-50 years & 13.37% of patients were from age group of 51-60 Years.

Table 5.2. Sex wise distribution of 60 patients of Urdhvag Amlapitta

Sex	No. of Patients		Total	%
	Group A	Group B		
Male	16	18	34	56.66
Female	14	12	26	43.33

Maximum no. of patients registered i.e. 56.66% were male & 43.33% were female.

Table 5. 3. Religion wise distribution of 60 patients of Urdhvag Amlapitta

Religion	No. of Patients		Total	%
	Group A	Group B		
Hindu	28	29	57	95
Muslim	1	1	2	3.33
Other	1	0	1	1.66

Maximum no. of patients i.e. 95% were Hindu, 3.33% were Muslim & 1.33% were other religion

Table 5. 4. Education wise distribution of 60 patients Of Urdhvag Amlapitta

Education	No. of Patients		Total	%
	Group A	Group B		
Uneducated	1	1	2	3.33
Primary	6	1	7	11.66
H. Sc.	8	9	17	28.33
Graduate	15	19	34	56.66

Maximum no. of patients i.e. 56.66% were graduate, 28.33% patients were higher secondary group, 11.66% patients were observed in primary educated group, 3.33% were uneducated.

Table 5.5. Occupation wise distribution of 60 patients of Urdhvag Amlapitta

Occupation	No. of Patients		Total	%
	Group A	Group B		
Service Man	8	7	15	25.00
Farmer	7	5	12	20.00
Student	1	3	4	6.66
House Wife	9	10	19	31.66
Self employed	5	5	10	16.66

Maximum no, of patients i.e. 31.66% were housewives, 25% were in service, 20% were farmer, 16.66% were self-employed & only 6.66% patients found in the student group.

Table 5. 6. Marital status wise distribution of 60 patients of Urdhvag Amlapitta

Marital status	No. of Patients		Total	%
	Group A	Group B		
Married	26	22	48	80.00
Unmarried	4	8	12	20.00

Maximum no. of patients i.e. 80.00% was married & 20.00% was Unmarried.

Table 5.7.   Socio-Economic   status   wise   distribution   of   60 patients of Urdhvag Amlapitta

Socio-Economic status	No. of Patients		Total	%
	Group A	Group B		
Lower	4	1	5	8.33
Middle	22	27	49	81.66
Higher	4	2	6	10

Maximum no. of patients i.e. 81.66% were found in middle class, 10% patients were from higher class & only 8.33% patients were from lower class.

Table 5. 8. Desha wise distribution of 60 patients Of Urdhvag Amlapitta

Desha	No. of Patients		Total	%
	Group A	Group B		
Anup	0	0	0	0
Jangam	0	0	0	0
Sadharan	30	30	60	100

All patients were belongs from Sadharan Desh.

Table 5.9. Prakruti wise distribution of 60 patients Of Urdhvag Amlapitta

Prakruti	No. of Patients		Total	%
	Group A	Group B		
Vat-pitta	13	13	26	43.33
Vat-Kapha	3	5	8	13.33
Kapha-pitta	14	12	26	43.33

Maximum no. of patients were having Vat-Pitta and Kapha-pitta Prakriti were 43.33% each and Vat-Kapha prakruti were 13.33%.

Table 5.10. Diet wise distribution of 60 patients Of Urdhvag Amlapitta

Diet	No. of Patients		Total	%
	Group A	Group B		
Veg	8	7	15	25.00
Mix	22	23	45	75.00

Maximum no. of patients i.e. 75% were consuming mixed diet while the rest were having vegetarian diet.

DIET WISE DISTRIBUTION

Table 5.11. Koshta wise distribution of 60 patients of Urdhvag Amlapitta

Koshta	No. of Patients		Total	%
	Group A	Group B		
Mrudu	7	6	13	21.67
Madhyama	15	19	34	56.66
Krura	8	5	13	21.67

Maximum no. of patients i.e. 56.66% were having Madhyama Kostha, while the rest of the patients were equally divided into 21.67% each in Mrudu and Krura Koshta.

Table 5.12. Agni wise distribution of 60 patients of Urdhvag Amlapitta

gni	No. of Patients		Total	%
	Group A	Group B		
Visham	14	13	27	45
Tikshna	5	4	9	15
Manda	9	12	21	35
Sama	2	1	3	5

Maximum no. of patients i.e. 45% were having Visham agni, while 35% were having Manda agni, 15% were having Tikshna agni, 5% having samagni.

Table 5.13. Onset wise distribution of 60 patients of Urdhvag Amlapitta

Onset	No. of Patients		Total	%
	Group A	Group B		
Acute	18	19	37	61.66
Gradual	12	11	23	38.33

61.66% having acute onset history while 38.33% patients were having gradual onset history.

Table 5.14. Abhyavarana Shakti wise distribution of 60 patients of Urdhvag Amlapitta

Abhyavarana Shakti	No. of Patients		Total	%
	Group A	Group B		
Pravara	2	4	6	10
Madhyama	20	21	41	68.33
Avara	8	5	13	21.66

Maximum no. of patients i.e. 68.33% were having Madhyama Abhyavarana Shakti followed by Avara and Pravara i.e. 21.66% and 10% of patients respectively.

Table 5. 15. Jaran Shakti wise distribution of 60 patients of Urdhvag Amlapitta

Jaran Shakti	No. of Patients		Total	%
	Group A	Group B		
Pravara	2	2	4	6.67
Madhyama	22	21	43	71.67
Avara	6	7	13	21.66

Maximum no. of patients i.e. 71.67% were having Madhyama jarana Shakti followed by Avara and Pravara i.e. 21.66% and 6.67% of patients respectively.

Table 5.16. Vyayam Shakti wise distribution of 60 patients of Urdhvag Amlapitta

Vyayam Shakti	No. of Patients		Total	%
	Group A	Group B		
Pravara	7	6	13	21.66
Madhyama	17	20	37	61.66
Avara	6	4	10	16.66

Maximum no. of patients i.e. 61.66% were having Madhyama Vyayam Shakti followed by pravara and Avara i.e. 21.66% and 16.66% of patients respectively.

Table 5.17. Sara wise distribution of 60 patients of Urdhvag Amlapitta

Sara	No. of Patients		Total	%
	Group A	Group B		
Pravara	3	2	5	8.33
Madhyama	21	21	42	70
Avara	6	7	13	21.67

Maximum no. of patients i.e. 70% were having Madhyama Sara followed by Avara and Pravara i.e. 21.67% and 8.33% of patients respectively.

Table 5.18. Samhanan wise distribution of 60 patients of Urdhvag Amlapitta

Samhanan	No. of Patients		Total	%
	Group A	Group B		
Pravara	3	2	5	8.33
Madhyama	22	21	43	71.66
Avara	5	7	12	20

Maximum no. of patients i.e. 71.66% were having Madhyama Samhanan followed by Avara and Pravara i.e. 20% and 8.33% of patients respectively.

Table 5.19. Addiction wise distribution of 60 patients of Urdhvag Amlapitta

Addiction	No. of Patients		Total	%
	Group A	Group B		
Tea/coffee	30	30	60	100
Tobacco	9	8	17	28.32
Smoking	6	9	15	25
Misri	4	3	7	11.66
Alcohol	4	5	9	15

Maximum no. of patients i.e. 100% had addiction of tea or coffee, 15% had addiction of Alcohol. 25% patients had smoking habit &, 28.33% patients had addiction of tobacco chewing, 11.66% patients had addiction of misri.

Table 5.20. Sleep wise distribution of 60 patients of Urdhvag Amlapitta

Sleep history	No. of Patients		Total	%
	Group A	Group B		
Regular	12	13	25	41.66
Irregular	18	17	35	58.33

41.66% have regular Sleep history while 58.33% patients were have irregular Sleep.

Table 5.21. Menstrual history wise distribution of 26 patients of Urdhvag Amlapitta

Menstrual history	No. of Patients		Total	%
	Group A	Group B		
Regular	10	10	20	76.92
Irregular	2	1	3	11.53
NO MENSES	2	1	3	11.53

Out of the 26 female patients studied, 76.92% having regular menstrual history while 11.53% patients were having irregular cycle & 11.53% patients were having no menses.

Table 5.22. Family history wise distribution of 30 patients of Urdhvag Amlapitta

Family history	No. of Patients		Total	%
	Group A	Group B		
Present	21	20	41	68.33
Absent	9	10	19	31.66

Maximum 68.33% of patients have Family history of Urdhvag Amlapitta while 31.66 % of patients with negative family history.

Table 5.23. Chronicity wise distribution of 60 patients of Urdhvag Amlapitta

Chronicity	No. of Patients		Total	%
	Group A	Group B		
1 - 12mths	21	24	45	75
1 - 2 yrs	7	5	12	20
> 2 yrs	2	1	3	5

Maximum no. of patients i.e. 75% were having chronicity up to 1 year, followed by chronicity of 1-2 yrs. i.e. 20% of patients only 5% patients having chronicity of > 2 yrs.

Table 5.24. Dominant rasa sevan wise distribution of 60 patients of Urdhvag Amlapitta

Dominant rasa	No. of Patients		Total	%
	Group A	Group B		
Madhur	10	9	19	31.66
Amla	25	26	51	85
Lavana	16	14	30	50
Katu	24	23	47	78.33
Tikta	4	2	6	10
Kashaya	4	3	7	11.67
Not specific	2	3	5	8.33

Maximum no. of patients i.e. 85% consume more Amla rasa sevan followed by Katu Lavana kashaya Tikta and some who are not specific i.e. 78.33% ,50%,11.67%, 10% and 8.33% respectively.

Table 25. Hetu wise distribution of 60 patients of Urdhvag Amlapitta

Hetu	No. of Patients		Total	%
	Group A	Group B		
ABHOJAN	10	16	26	43.33
ATIBHOJAN	7	5	12	20
VIDAHA BHOJAN	20	21	41	68.33
VISHAMASHAN	20	21	41	68.33
ADHYASHAN	8	9	17	28.33
PARYUSHIT	9	6	15	25
BHUKTE SWAP	19	15	34	56.66
BHUKTE SNAN	2	3	5	8.33
DIVASWAP	20	16	36	60
VEGDHARAN	6	4	10	16.66

Maximum no. of patients i.e. 68.33% were having Vidahi Bhojan & vishamashan amongst hetus followed by diwaswap was found in 60% of patients; bhukte swap was 56.66% and abhojan in 43.33% of patients. Adhyashan found in 28.33% of patients; parayush it in 25%, Atibhojan found in 20% of patients; vegdharan, and bhukte snan were found as hetu in 16.66% & 8.33% of patients respectively.

This table shows that all patients were having as chief complain like Tikta amla udgar with 100% hritkanth daha 96.66%, Utklesh 93.33% , vanti 88.33%, Shiroruja 73.33%, Aruchi 68.33%, karachran daha 48.33%sarvanga daha 20%and Kandu 8.33% patients have complained of these symptoms.

Table 26. Chief complains wise distribution of 60 patients of Urdhvag Amlapitta

Chief complains	No. of Patients		Total	%
	Group A	Group B		
VANTI	27	26	53	88.33
SHIRORUJA	23	21	44	73.33
KARA- CHRAN DAHA	13	16	29	48.33
SARVANG DAHA	7	5	12	20
HRITKANTH DAHA	30	28	58	96.66
TIKTA AMLA UDGAR	30	30	60	100
KANDU	3	2	5	8.33
ARUCHI	20	21	41	68.33
UTKLESH	28	28	56	93.33
JVAR	0	0	0	0
MANDAL	0	0	0	0
PIDAKA	0	0	0	0

STATASTICAL ANALYSIS

The data collected from this clinical research work and arranged for further process by subjecting to various statistical methods and presented for early comprehension. So the obtained data on the basis of observation in each group were subjected to statistical analysis in terms of Paired 't' test. The 't' test used for paired observations before treatment and after treatment. The formula for that is

1) 't' Calculated = MR/SE, where MR is the mean reduction between gradation of symptoms at two time period.
2) MR = $\sum d/n$, where d is the difference between gradation of symptoms at two time period.
3) S. D. of difference = Square root of $\{[\sum d2 - (\sum d)^2/n]/n\}$, where n is the number of patients in one group.
4) S. E. of difference = SD/   n.

Now two hypotheses were made.

1) H_0 = where symptoms before treatment and after are same i.e. test is insignificant (MR = 0).
2) H_1 = where symptoms before treatment and after treatment are different i.e. test is significant (MR $\neq$ 0).

It was considered at level of P > 0.05 (Insignificant), P < 0.05, P< 0.01 (Significant) and P < 0.001 (Highly significant). The t table at 5 %, 1 %, 0.1% is considered (n-1) DF, to carry out the results.

The obtained data on the basis of observation of two groups were subjected to statistical analysis in terms of 'z' test as numbers of patients were more than 30. For comparing results in two groups, this test was done. As above, in this test also two hypotheses were made.

1) Ho – In Urdhvag Amlapitta the efficacy of treatment with Group A [Shankha bhasma] is equal to the efficacy of treatment with Group B [Guduchi satva].
2) H1 - In Urdhvag Amlapitta the efficacy of treatment with Group A [Shankha bhasma] is significantly different the efficacy of treatment with Group B [Guduchi satva].

The formula used is Z calculated = $(x1 - x_2)$/SE, where x_1 is the mean reduction in group A and x_2 is the mean reduction in group B.

S. D. of mean difference = Square root of $\{(n_1 SD_1^2 + n_2 SD_2^2)/ (n_1 + n_2 -2)\}$
S.E. = S.D. of mean difference x $(1/n_1 + 1/n_2)$
It was considered at level of P < 0.05 (significant), P < 0.01(significant); to carry out the results table value of Z at 1 % level of significance is 2.58. Table value of Z at 5 % level of significance is 1.96.

Paired 't' test

Paired 't' test is used to work out mean reduction between before treatment & after treatment under study and test is significant. Results obtained are presented in following table. The 't' table value at 5% is 2.045, 1% is 2.756 and 0.1% is 3.66.

Vanti

Vanti	Mean			Relief %	S.D.+	S.E.+	t	P
	B.T.	A.T.	BT-AT					
GROUP A	1.53	0.5	1.03	61.31	0.66	0.12	8.4	<0.001
GROUP B	1.4	0.3	1.1	78.57	0.66	0.12	9.10	<0.001

This table shows that both group shows statistically highly significant relief ($p<0.001$) in vanti, but percentage wise group B (78.57%) was better than group A (61.31%).

Shiroruja

	Mean			Relief %	S.D.+	S.E.+	t	P
	B.T.	A.T.	BT-AT					
A	0.93	0.3	0.63	67.85	0.55	0.10	6.23	<0.001
B	1	0.16	0.83	83.33	0.64	0.11	7.04	<0.001

This table shows that both groups are statistically significant relief in Shiroruja, but percentage wise group B (83.33%) is better than group A (67.85%).

Kara-charana Daha

	Mean			Relief %	S.D.	S.E.	t	P
	B.T.	A.T.	BT-AT					
A	0.76	0.23	0.53	69.56	0.68	0.12	4.28	<0.001
B	0.9	0.23	0.66	74.07	0.71	0.12	5.13	<0.001

This table shows that both groups are Statistically significant relief in Kara-charana Daha, but percentage wise group B (74.07%) is better than group A (69.56%).

Sarvanga Daha

Sarvanga Daha	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT-AT					
GROUP A	0.3	0.1	0.2	66.66	0.40	0.07	2.69	<0.01
GROUP B	0.23	0	0.23	100	0.56	0.10	2.24	<0.01

This table shows that both groups are Statistically significant relief in Sarvanga Daha, but percentage wise group B (100%) is better than group A (66.66%).

Hrid-kantha Daha

	Mean			Relief %	S.D. +	S.E. +	t	P
	B.T.	A.T.	BT-AT					
A	1.7	0.63	1.06	62.74	0.63	0.11	9.13	<0.001
B	1.56	0.36	1.2	76.59	0.71	0.13	9.20	<0.001

This table shows that both groups are statistically highly significant relief in Hrid-kantha Daha, but percentage wise group B (76.59%) is better than group A (62.74%).

Tikta-Amla Udgar

	Mean			Relief %	S.D.+	S.E.+	t	P
	B.T.	A.T.	BT-AT					
A	1.7	0.56	1.13	66.67	0.73	0.13	8.49	<0.001
B	1.86	0.4	1.46	78.57	0.81	0.14	9.80	<0.001

This table shows that both groups are Statistically highly significant relief inTikta-Amla udgar Daha, but percentage wise group B (78.57%) is better than group A (66.67%).

Kandu

	Mean			Relief %	S.D.$\pm$	S.E. $\pm$	t	P
	B.T.	A.T.	BT-AT					
A	0.13	0	0.13	100	0.43	0.07	1.68	<0.05
B	0.06	0	0.06	100	0.25	0.04	1.43	<0.05

This table shows that both groups are statistically non significant even though patients get 100% relief i.e because very few patients showed these symptoms.

Aruchi

	Mean			Relief %	S.D.$\pm$	S.E.$\pm$	t	P
	B.T.	A.T.	BT-AT					
A	1.03	0.26	0.76	74.19	0.72	0.13	5.76	<0.001
B	1.13	0.16	0.96	85.29	0.80	0.14	6.54	<0.0 01

This table shows that both groups are statistically highly significant relief in Aruchi, but percentage wise group B (85.29%) is better than group A (74.19 %).

UTKLESH

Aru chi	Mean			Relief %	S.D.$\pm$	S.E. $\pm$	t	P
	B.T.	A.T.	BT-AT					
A	1.6	0.4	1.2	75	0.66	0.12	9.89	<0.001
B	1.73	0.43	1.3	75	0.79	0.14	8.96	<0.001

This table shows that both groups are statistically highly significant relief in Utklesh, and both the groups have 75% relief.

Jvara, 11) Mandal &12) Pidaka*:*

These three signs were totally absent in all patients from both the groups. Hence there is no chance of statistical analysis and inference.

Table: Total Effect of therapy in both groups

Result	GROUP A		GROUP B	
	No. of patients	%	No. of patients	%
Complete Bemission	0	0	0	0
Marked Improvement :	0	0	2	6.66
Moderate Improvement	15	50	17	56.66
Mild Improvement	14	46.66	6	20
Unchanged :	1	3.33	0	0

Research Question

Is the efficacy of Guduchi Satva is greater than Shankha Bhasma in Urdhvag Amlapitta?

Hypothesis

The aim of the project work is to have comparative study on Guduchi Satva and Shankha Bhasma in Urdhvag Amlapitta patients along with Anupan koshna Jala.

Null hypothesis

Ho – In Urdhvag Amlapitta the efficacy of treatment with Group A [Shankha Bhasma] is equal to the efficacy of treatment with Group B [Guduchi satva].

Alternate hypothesis

H1 - In Urdhvag Amlapitta the efficacy of treatment with Group A [Shankha Bhasma] is significantly different the efficacy of treatment with Group B [Guduchi satva].

Here, Sample size that is Number of patients n1 = n2 = 30

At ☐ level of significance, reject Ho.

If Z cal$\geq$ Z table, accept otherwise.

	GROUP A	GROUP B
MEAN	0.744	0.87
STANDARD DEVIATION	0.399	0.475

Difference between the means: 0.126
Standard error of difference between two means: 0.08
ZCal = 1.57
Z table = 1.96
At 5 % level of significance, ZCal< Z table

Hence Null hypothesis Ho is accepted and Alternate hypothesis H1 is rejected.

Null hypothesis Accepted

Ho – In Urdhvag Amlapitta the efficacy of treatment with Group A [Shankha Bhasma] is equal to the efficacy of treatment with Group B [Guduchi satva].

Conclusion

In Urdhvag Amlapitta the efficacy of treatment with Shankha Bhasma is equal to the efficacy of treatment with Guduchi satva as per statistical analysis. But percentage wise result of Guduchi Satva is better than Shankha Bhasma

DISCUSSION

The study entitled ''A Comparative Study of Shankh Bhasma and Guduchi Satva in the management of Urdhvag Amlapitta along with anupan koshn jala.'' was conducted among 60 patients. They were divided into two groups - Group A & Group - B. Both the group have 30 patients each.
In Group A- Shankh bhasma In Group B- Guduchi satva.

DISCUSSION OF THE OBSERVATION

AGE: Maximum no. of patients i.e. 40.00% were from the age group of 31 – 40 years, 26.66% of patients were from age group 20-30 years , 20.00% of patients were from age group of 41-50 years & 13.37% of patients were from age group of 51-60 Years. Probable cause for increasing in this age group may be that the person of this age group are more exposed towards the changing external environment & mental stress owing to their socio-economical responsibilities i.e. improper vihar and irregularity in diet.In this age group pitta Dosha was dominate. It also responsible for the aggravation of the disease process

SEX: In the sample of 60 patients of Amlapitta, it was observed Maximum no. of patients registered i.e. 56.66% were male & 43.33% were female that does not make any particular conclusion. In this fast life style, male and female, both are suffered from mental stress, and intake irregular & spicy food which leads to aggravation of the process of Amlapitta.

RELIGION: Maximum no. of patients i.e. 95% were Hindu , 3.33% were Muslim.& 1.33% were other religion.In the present study maximum patients belong to Hindu religion so we cannot make any correlation with the disease.

SOCIO-ECONOMICAL STATUS:- Maximum no. of patients i.e. 81.33% were found in middle class, 10% patients were from higher class Due to middle socio-economical condition, the persons were facing more stess and having competitive life

EDUCATION: Maximum no. of patients i.e. 56.66% were graduates, in educated people due to hurried and worried life, irregular food habit but in present study we cannot make any correlation with formation and progress of the disease.

OCCUPATION: Maximum no, of patients i.e. 31.66% were housewives It was observed that most of the house wivies were in the habit of Diwasvapna sevan, and Diwasvapa leads to Agni Mandhya and Tridosha prakopa & then Amlapitta. Service men suffered from mental and physical stress as Amlapitta is considered as a Psycho-somatic disease.

MARITAL STATUS: Maximum no. of patients i.e. 80.00% were married & 20.00% were Unmarried. Family involved patients were under stress due to various reasons in their day to day life.

FAMILY HISTORY: Maximum no. of patients i.e. 68.33% were having history of this disease in the family. Ancient Acharyas have not indicated any have hereditary predisposition of this disease but according to modern medicine patients with 'o' blood group a hereditary predisposition of this disease. (Acid peptic disease). The observation of family history suggest that dietic pattern & environment also plays an important role as the 31.66 % of cases had no family history.

DIET PATTERN: Maximum no. of patients i.e. 75.00% were mixed diet while the rest were having vegetarian food Maximum number of the patients have the habit of irregular food intake. Non vegetarian diet and irregular pattern of food intake lead to Agnimandhya & Tridosha Dusti which also lead the aggravation of this disease.

ADDICTION: Maximum no. of patients i.e. 100% had addiction of tea or coffee, 15% had addiction of Alcohol. 25% patients had smoking habit &, 28.33% patients had addiction of tobacco chewing, 11.66% patients had addiction of misri. These factors are mostly irritant to gastric mucosa and thus cause durabalya of Amashaya along with vitiation of Dosha mainly pita-kapha.

KOSTHA: Maximum no. of patients i.e. 56.66% were having Madhya Kostha, while 21.67% were having Krura Kostha.
AGNI:- Maximum no. of patients i.e. 45% were having Visham agni, while 35% were having Manda agni, 15% were having Tikshna agni, 5% having samagni. Shows that since most patients have visham agni provokes the pitta Dosha causing in the formation of Amlapitta.

PRAKRUTI: Maximum no. of patients i.e. 43.33% having VataPitta Prakriti. Vata pittaya Prakruti dominanat persons were more prone to get vataja and pittaja disease. When they take Mithya Ahara Vihara all these Doshas get vitiation and produce disease

SARA, SAMAHANANA: Maximum no. of patients i.e. 70% were having Madhyama Sara and maximum no. of patients i.e. 71% were having Madhyama Samhanan This reflects the general sara, samhanana in the society and this cannot be co-related to disease.

SLEEP: 41.66% have regular Sleep history while 58.33% patients were have irregular Sleep shows that irregular sleep and lack of sleep also triggers Amlapitta.

FAMILY HISTORY: Maximum 68.33% of patients have Family history of Urdhvag Amlapitta while 31.66 % of patients with negative family history. This observation shows that Family history play a role in the formation of Amlapitta.

CHRONICITY: 75% patients were have chronicity of 0 to 12 month and 20% patient were have chronicity of 1 to 2 years and 5% patients had the chonicity more than 2 years. According to this observation most patients self medicate for the symptoms causing them to subside temporarily but with time the symptoms aggravate and become chronic in nature. More over due to jihva Lauya patients usually indulge in apathya sevana causing chronicity of the disease.

ETIOLOGICAL FACTORS: Maximum no. of patients i.e. 68.33% were having Vidahi Bhojan & vishamashan amongst hetus followed by diwaswap was found in 60% of patients; bhukte swap was 56.66% and abhojan in 43.33% of patients. Adhyashan found in 28.33% of patients; parayush it in 25%, Atibhojan found in 20% of patients; vegdharan, and bhukte snan were found as hetu in 16.66% & 8.33% of patients respectively.Maximum patients were having one of the faults in their eating habits. This is responsible for vitiation of Dosha which leads into Agni dusti and establishment of disease its exacerbation and relapses.

DOMINANT RASA SEVAN: Maximum no. of patients i.e. 85% consume more Amla rasa sevan followed by Katu Lavana kashaya Tikta and some who are not specific i.e. 78.33% ,50%,11.67%, 10% and 8.33% respectively. Both Amla and Katu rasa agrrevate the pitta causing it in the formation of Amlapitta.

CHIEF COMPLAINT: This table shows that all patients were having as chief complain like Tikta amla udgar with 100% hritkanth daha 96.66%, Utklesh 93.33%, vanti 88.33%, Shiroruja 73.33%, Aruchi 68.33%, karachran daha 48.33% sarvanga daha 20%and Kandu 8.33% patients have complained of these symptoms. Shows that most patients of Amlapitta suffer from Tikta Amlaudgar , hritkanth daha and Utklesh.

Over all Effect of Each Therapy with Comparison

The over all effect of each therapy was assessed on the basis of improvement in individual patients.
Group A: The treatment was found effectiveand showed Moderate improvement(50% -75% relief) in

50% of patients and Mild improvement(25%-50% relief) in 46.66% of patients and unchanged (0-25% relief) in3.33% of patients.

Group B: The treatment was found effective and showed marked improvement (>75% <100%) in 6.66% of patients Moderate improvement(50% -75% relief) in 56.66% of patients and Mild improvement(25%-50% relief) in 20.00% of patients and unchanged (0-25% relief) in0.0% of patients. The overall percentage wise effect of Guduchi satva is better in comparison to shankha Bhasma.

Probable Action of Drug

Guduchi satva: In Ayurvedic text Guduchi satva has not given any different ras, guna or pharmacological action other than Guduchi. Hence the action of Guduchi satva is considered as Guduchi but in more potent form.

Guduchi: Guduchi belongs to ganas like Vayasthapaka, dahaprashamana, trushnanigrahan as well the roghagnata or guna of Guduchi are vamanhar and pittaghan .

Properties	Action
Snigha, ushna	Vataghna
Tikta kashay	Pittaghna, dhatwagnidipan, raktaprasadan, jwaraghna,
Tiktakashay,katu, ushna virya	Kaphaghna, deepan, pachan, amapachak, trushnashmak
Tikta rasa	Pittasarak, dahashamak,
Madhur vipak	Dhatu poshan, Rasayan

- In Amlapitta the main Dosha of samprapti is pitta so as tikt, kashay ras Madhur vipak Guduchi reduses pitta
- As Guduchi is deepan pachan and aampachak it deceases vidhgdhata of ann i.e ultimately helps to make prakrit pachan which reduses the disease amlpitta.

Shankh Bhasma- According to bhavprakasha shankh bhasm is sheet, kshar, balya, varnya, grahi and roghagnta is amlpitta, Grahani, tarunya pitika, vish dosh

Properties	Action
Sheet	Balya,
Kshar, sheet	Pittaghna,varnya, parinam shool
Grahi	Grahani

- In Amlapitta pitta is increased specifically by amla guna as shankh bhasm is kshar in rasa it reduses amla guna of pitta
- Shankh bhasm is pittaghna, well acts on angnimady so we can say it regulates pitta properly
- The grahi guna of shankh Bhasma helps to cure Amlapitta as well as Grahani.

ANUPAN

Koshn Jala: According to sharangdhar samhita koshn jala is deepan as well as aampachan, in Amlapitta koshn jala helps to lower agnimadya and symptoms of Amlapitta like Aruchi by aampachan. And thats how koshn jala helps to promote actions of both the Guduchi satva and shankha Bhasma.

Effect on Vanti: The initial score of Vanti for Group A was 1.53 which was reduced to 0.5 with highly significant result (p<0.001). In Group B the score was reduced to 0.3 from the initial score 1.4 reliefs with very high significant result. But percentage wise group B (78.57%) was better than group A (61.31%).

Effect on Shiroruja: The initial score of Shiroruja for Group A was 0.93 which was reduced to 0.3 with highly significant result (p<0.001). In Group B the score was reduced to 0.16 from the initial score 1 reliefs with very high significant result. But percentage wise group B (83.33%) is better than group A (67.85%).

Effect on Kara-charana Daha: The initial score of Kara-charan Daha for Group A was 0.76 which was reduced to 0.23 with highly significant result (p<0.001). In Group B the score was reduced to 0.23 from the initial score 0.9 reliefs with very high significant result.But percentage wise group B (74.07%) is better than group A (69.56%).

Effect on Sarvang Daha: The initial score of Sarvang Daha for Group A was 0.3 which was reduced to 0.1 with significant result

(p<0.01). In Group B the score was reduced to 0 from the initial score 0.23 reliefs with significant result. But percentage wise group B (100%) is better than group A (66.66%).

Effect on Hrid-kantha Daha: The initial score of Hrid-kantha daha for Group A was 1.7 which was reduced to 0.63 with highly significant result (p<0.001). In Group B the score was reduced to 0.36 from the initial score 1.56 reliefs with very high significant result.But percentage wise group B (76.59%) is better than group A (62.74%).

Effect on Tikta-Amla Udgar: The initial score of Tikta-Amla Udgar for Group A was 1.7 which was reduced to 0.56 with highly significant result (p<0.001). In Group B the score was reduced to 0.4 from the initial score 1.86 reliefs with very high significant result.But percentage wise group B (78.57%) is better than group A (66.67%).

Effect on Kandu: The initial score of Kandu for Group A and B was 0.13 and 0.06 respectively both reduced to 0 but as patient showing Kandu are less in number so we cannot make any statistical inference but percentage wise relief is 100%.

Effect on Aruchi: The initial score of Aruchi for Group A was 1.03 which was reduced to 0.26 with highly significant result (p<0.001). In Group B the score was reduced to 0.16 from the initial score 1.13 reliefs with very high significant result. But percentage wise group B (85.29%) is better than group A (74.19 %).

Effect on Utklesh: The initial score of Utklesh for Group A was 1.6 which was reduced to 0.4 with highly significant result (p<0.001). In Group B the score was reduced to 0.43 from the initial score 1.73 reliefs with very high significant result And both the groups have 75% relief.

Effect on Jvara, Mandal & Pidaka : These three signs were totally absent in all patients from both the groups. Hence there is no chance of statistical analysis and inference.

Conclusion

Without finding some conclusion on any study, it would not become successful in its aims and a scientific discussion on any conceptual and clinical oriented study definitely gives rise to some fruitful conclusions. Here also in this particular study, some reasoning and example database concept and achieved results along with the observations have been discussed in the previous pages and from that following conclusions can be drawn:

- Urdhvag Amlapitta is one of the most common Vyadhi and an incident of this Vyadhi is very high in present era and is increasing day by day.
- The age groups from 31-40 years are more prone to this disease as in this age group are more exposed towards the changing external environment & mental stress.
- Urdhvag Amlapitta is one of the disease in which the Pitta dosha is mainly responsible for the manifestation of the disease. Amlapitta is a condition where excessive secretion of Amla Guna of Pitta takes place or Amla Guna increases due to Samata causing Vidahyadi condition.
- Some new *Hetu* were found other than *Ayurvedic* texts like *Ratrijagaran,* Addictions, Medicinal intake and those can be co-related with respective category of *Ayurvedic Hetu.*
- Improper diet pattern like Vidahi bhojan, Vishamashan,
- Anashan, Bhukte swap, excessive emotional stress, addiction, improper sleep are the major Hetu of Urdhvag Amlapitta.
- Due to the huge similarity between sign & symptoms the disease is correlated with Acid peptic disorder.
- As the study was conducted on small scale for a period of 30 days and after the study if patient start Hetu sevan the disease may be relapse.
- This work was done by keeping in view all the cautions. In spite of that, there may be chances of bias in research and also in interpretation of concepts in appropriate way. Author takes sole responsibility for such errors. It may be hoped that, the reader of this dissertation would gain some additional aspects of knowledge and assistance for future research work.
- In the study it was seen that most patients were males who were
- Both drugs were well tolerated by patients without creating any complications.
- In nutshell, Ayurveda proved better in the management of the disease in comparison to modern aspect i.e., Both Shankha Bhasma and Guduchi Satva proved to be a good effective therapy in curing the disease.
- It can be concluded that there is satisfying scope of suggesting these drugs as Ayurveda management as safe and effective in Urdhvag Amlapitta.
- Suggestion for further study: Further studies with enhanced evaluation can be done in future to establish more facts regarding the management of Urdhvag Amlapitta. It can be also said that the efficacy of Shankha Bhasma and Guduchi Satva can be increased along with proper Shodhan Chikitsa. In excessive severity or chronic condition, long term therapy gives better results and to avoid re-occurrence. So in future, same topic can be taken for further research to overcome some lacunas if found, for better results and for better conclusions.

Final conclusion In Urdhvag Amlapitta the efficacy of treatment with Shankha Bhasma is equal to the efficacy of treatment with Guduchi satva as per statistical analysis. But percentage wise result of Guduchi Satva is better than Shankha Bhasma

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