



Research Article

A COMPARATIVE CLINICAL TRIAL OF AMALAKI AND MADHUYASHTI CHOORNA IN AMLAPITTA

Pandit Yogeshwar Krishna¹, Garg Puneet Kumar^{2*}, Agarwal Khushboo³, Sevatkar Balkrishna⁴, Mehta P.S.⁵

¹Assistant Professor, Department of Rog Nidana and Vikriti Vigyan, S.S.S.B. Ayurvedic College and Hospital, Renwal, Jaipur, Rajasthan, India

²Assistant Professor, Department of Rog Nidana and Vikriti Vigyan, Patanjali Ayurved College, Haridwar, Uttarakhand, India

³M. O., Abhay Ayurveda Shodh evam Chikitsa Sansthan, Sodala, Jaipur, Rajasthan, India

⁴Associate Professor, P.G. Department of Rog and Vikriti Vigyan, National Institute of Ayurveda, Jaipur, Rajasthan, India

⁵Professor, P.G. Department of Rog and Vikriti Vigyan, National Institute of Ayurveda, Jaipur, Rajasthan, India

*Corresponding Author Email: puneetayu@gmail.com

Article Received on: 11/01/15 Revised on: 13/02/15 Approved for publication: 18/03/15

DOI: 10.7897/2230-8407.06343

ABSTRACT

Amlapitta can be a result of inappropriate dietary regimen or stress. It is a problem which when left unattended to, results in peptic ulcer and other complications. It is quite a simple problem when it begins, but it can get out of hand easily if not taken critically. Conquering Amlapitta is certainly a very important issue. The right way to fight against this disease is to become well-informed about its various aspects specially Manas-bhava. In this trial both of the drugs shown excellent result on Amlapitta in which Madhuyashti proved better results. After this study there is no doubt about importance of Manasa-bhava (Psychological factors) in Amlapitta pathogenesis and Madhuyashti efficacy its management.

Keywords: Amlapitta, Manasa bhava, GERD, Amalaki Choorna, Madhuyashti Choorna.

INTRODUCTION

Since the time immemorial, Ayurveda is being used as an important measure of healthy and happy life. According to the theories of Ayurveda, all the diseases are due to hypo functioning of agni.¹ As per Acharya Sushruta, improperly digested food becomes poisonous or toxic (shukta/ anna-vish), this toxic-juice /shukta combines with pachaka-pitta and creates a variety of pitta-dominant diseases.² Amla-pitta is one of them. Amlapitta is literary means a condition in which sourness of Pitta gets increased. Amla-pitta or acid-dyspepsia/hyper-acidity is the condition of excreting more than the normal amount of hydrochloric-acid in the stomach. According to modern medicine, hyper-acidity can be a result of inappropriate dietary regimen or stress. It is a problem which when left unattended to, results in peptic ulcer and other complications. It is quite a simple problem when it begins, but it can get out of hand easily if not taken critically. About three thousand years ago, Acharya Charaka described very clearly that³, “Even salutary food taken in an appropriate quantity (according to individuals agni) does not get digested, if the person is in a state of chinta (anxiety), shoka (grief), bhaya (fear), krodha (anger) and dukh-shayya prajagare (else if he sleeps on an uncomfortable bed or remains awake for a long time.” Acharya Sushruta also described that “The food is also not properly digested if taken by a person who is emotionally upset due to jealousy, fear, anger, or greed, or who is distressed due to suffering from other diseases or who has taken food not to his liking.⁴ Ayurveda has given the prime importance to manas bhava for the occurrence of diseases. Diseases are divided in two types i.e. sharirika (Somatic) and manasika (Psychological).⁵ Chakrapanidatta described Sadhaka pitta and identified its location as the hridaya. The functions described by him to this pitta are shaurya (valour, courage, and bravery), bhaya (fear-complex), krodha (anger or rage), moha (delusion, confusion) etc.⁶ Manas hetu

(psychological factors) causes the vitiation of Dosha and Agni which results in Agnimandya (loss of digestive fire) and Avipaka (indigested) and in this stage even light diet cannot be digested. It remains as it is in Aamashaya and produces Shukratva (fermented/acetonus), which leads to formation of Annavisha. This Annavisha produces Ajirna (indigestion).⁷ Once Agnidushti occurs it results in Avipaka, Ajirna and this further damage the Agni. Thus, Amavisha produced disturbs the Grahani and once it happened it further produces the Amadosha and vicious cycle starts. Madhavakara has given two types i.e. Adhoga and Urdhvaga, Doshika varieties.⁸ Charaka has mentioned that if Annavisha Produced by this pathogenesis mixes with Pitta, it will produce Amlapitta. Acharya Kashyapa has described the Samprapti of Amlapitta in detail first time and it seems similar to the Samprapti of Grahani Roga described by Charaka.⁹ Hence it seems that the Amlapitta is a disease condition produced due to Pitta-Kaphavrita Vata mainly Prana and Samana.¹⁰

Aims and Objectives

- To evaluate the efficacy of Amalaki choorna in the management of Amlapitta.
- To evaluate the efficacy of Madhuyashti choorna in Amlapitta as a Medhya rasayana.
- To compare both of the drugs.

MATERIAL AND METHODS

A single blind randomized controlled trial was conducted to evaluate the effect of trial drug in the patients affected with Amlapitta.

Selection of Cases

Source- Patients having Amlapitta (Hyperacidity) and willing to provide written, informed consent will be randomly selected from the National Institute of Ayurveda hospitals and other hospitals situated in Jaipur, India by survey method and subjected to clinical study on the basis of specially prepared Performa including Ayurvedic parameters.

Age group- Patients between 15 to 75 years were considered for the study.

Number of cases- Total 200 patients of Amlapitta was screened out from above source; out of which 65 patients were registered. 05 patients discontinued the treatment during the course.

Grouping of patients- Selected patients for clinical study were randomly divided into following two groups with 30 patients in each group keeping in mind all the groups have patients of Amlapitta with different level of age, sex and socioeconomic status.

Group I – This group of 30 patients Treated with Amalaki choorna.

Group II – This group of 30 patients Treated with Madhuyashti choorna.

Diagnostic Criteria- Amlapitta affected patients were screened via pre assessment criteria based on general sign and symptoms of Amlapitta.

Inclusion criteria

- The patients with all the general features of Amlapitta according to Ayurvedic texts.
- Patients age above 15 years and below 75 years.
- Uncomplicated cases of Amlapitta.
- Chronicity less than 2 years.

Exclusion criteria

- Age group- patients age below 15 years and above 75 years.
- Severely malnourished and debilitated patients.
- Patients suffering from gastric or peptic ulcers with malignancy.
- Patients suffering from Diabetes mellitus.
- Associated with any other serious systemic disease or complications.

Withdrawal criteria

If any patient develops any S/S of adverse reactions or deteriorates, he / she will be withdrawn from the trial. Patients may also withdraw from the study on their own volition without citing any reason.

Assessment criteria

Assessment of the effect of the treatment was done on the basis of the relief in the subjective as well as objective signs and symptoms of hyper acidity, As most of the signs and symptoms described in modern science and Ayurvedic literature are of subjective nature, to provide them objectivity for statistical analysis, multidimensional scoring pattern was adopted. These scores were recorded before and after the treatment through statistically analysis and percentage of relief were noted to assess the efficacy of the test drugs.

Trial Drugs

Two groups were framed for this study, in group-I, Amalaki choorna selected as a control drug. This choorna is indicated for treatment of Amlapitta in Ayurveda and further proved in many studies. Amalaki increases mucin secretion and life span of mucosal cells¹¹. Nowadays this is a choice of drug for Amlapitta. In group-II, Madhuyashti choorna selected for observation of clinical effect on Amlapitta. This is one of the best intellect Rasayana mentioned in Charaka Samhita, so it is helpful to reduce anxiety, depression etc. Manasa bhava, and due to its Shita, Madhura, Guru guna and Pittashamaka effects on Amlapitta. Secondly it's cheaper cost, easy availability and palatability also good for a patient. So, Madhuyashti choorna is selected for this study. All dried parts were collected and processed in the pharmacy of National Institute of Ayurveda, Jaipur, India. They were grinded and fine powder (sieve by mess no. 80) was prepared.

Dose and Duration

Amalaki choorna, Dose – 5 g/BD, Anupana - water

Madhuyashti choorna, Dose – 5 g/BD, Anupana – milk

Trial duration- 45 days

Drug Name	Botanical Name	Part Used
Amalaki	<i>Embilica officinalis</i>	Dried fruit
Madhuyashti	<i>Glycyrrhiza glabra</i>	Root and Rhizomes

Follow up schedule

Assessment was done in every 15 days. Thus assessment will be done once before the start, twice during and once at the end of the trial. Attempt will be made to follow-up the patients 45 days after the cessation of trial also.

OBSERVATION AND RESULTS

Statistical analysis

All the calculation was calculated through 'GraphPad Instat' Software. Paired 't' test- Applied to independent observation from one sample only when each individual gives a pair of observation, for parametric assessment. It will be used on objective parameter of both group 'A' and 'B'.

Wilcoxon signed rank test

Non parametric test for the case of two related samples or repeated measurement on a single test. It will be used for the assessment of improvement in symptom of group 'A' and 'B'.

Wilcoxon matched-pairs signed-ranks test for subjective Assessment

W = Sum of all signed rank P = Two tailed 'p' value

Interpretation of 'p' value

- * > 0.05-insignificant
- ** < 0.05-significant
- ** * < 0.01-very significant
- ** * * < 0.001-highly (extremely) significant

Table 1: Demographic distribution of patients

S. No.	Features	Group 1		Group 2		Total	
		No.	%	No.	%	No.	%
1	Age (21-40)	19	63.3	24	80	43	71.75
2	Sex (Male)	19	63.3	17	56.6	36	60
3	Religion (Hindu)	20	66.6	23	76.6	43	71.6
4	Marital status (M)	21	70	24	80	45	75
5	SES (Upper-M)	12	40	9	30	21	35
6	Addiction (Tea)	28	93.3	30	100	58	96.6
7	Diet (Veg.)	20	66.6	24	80	44	73.3
8	Habbit (Adhyashana)	25	83.3	21	70	46	76.6
9	Ahar Ras (Amla)	24	80	26	86.6	50	83.3
10	Guna (Ushna)	24	80	26	86.6	50	83.3
11	Agni (Visham)	19	63.3	17	56.6	36	60
12	Koshth (Madhyam)	19	63.3	23	76.6	42	70
13	Deha prakriti (VP)	12	66.6	18	60	35	58.8
14	Manas P. (Rajas)	26	86.6	27	90	53	88.3
15	Satmya (Vyamishra)	28	93.3	30	100	58	96.6
16	Jaranshakti (Avara)	16	53.3	18	60	34	56.6
17	Sleep (Interrupted)	13	43.3	12	40	25	41.7
18	Bowel (Constipation)	12	40	11	36.6	23	38.3
19	Stress (Tension)	24	80	19	63.3	43	71.3
20	Sign (Amlaodgara)	30	100	30	100	60	100

Table 2: Effect of Therapy in group I

S. No.	Symptoms	Mean		Diff.	% Relief	N	p value	Rem.
		B.T	A.T					
1	Aruchi (Anorexia)	0.9667	0.5667	0.4000	41.377	16	< 0.001	S
2	Avipaka (Indigestion)	2.433	1.367	1.067	43.855	25	< 0.0001	HS
3	Daha(Burning sensation)	2.033	0.9333	1.100	54.107	22	< 0.0001	HS
4	Chhardi (Vomitting)	1.967	1.367	0.6000	30.503	25	< 0.0001	HS
5	Shoola (Pain)	1.500	0.9667	0.5333	35.553	20	< 0.0001	HS
6	Hrillasa (Nausea)	1.600	0.5667	1.033	64.562	19	< 0.0001	HS
7	Gaurava (heaviness)	0.833	0.5333	0.3000	36.001	11	< 0.001	S
8	Angasada (Looseness of body)	0.7667	0.4667	0.3000	39.128	11	< 0.001	S
9	Amlodgara (Acid eructations)	2.000	0.8000	1.200	60.00	16	< 0.0001	HS
10	Adhmana (Flatulence)	2.233	0.9333	1.300	58.217	25	< 0.0001	HS
11	Atopa (Gurgling sound in abdomen)	1.500	0.9667	0.5333	35.553	20	< 0.0001	HS
12	Pipasa (Polydypsia)	2.300	1.633	0.667	29.00	19	< 0.0001	HS
13	Jaranshakti (Power of digestion)	1.833	0.8667	0.9667	52.738	14	< 0.0001	HS
14	Shoka (Grief)	1.233	0.8333	0.4000	32.441	19	< 0.001	S
15	Concentration	1.867	1.200	0.667	35.709	21	< 0.0001	HS
16	Sleep	0.9333	0.6333	0.3000	32.144	11	< 0.001	S
17	Anxiety	1.600	1.033	0.5667	35.418	18	< 0.0001	HS
18	Moha (Confusion)	1.967	1.367	0.6000	30.503	25	< 0.0001	HS
19	Krodh (anger)	2.167	1.333	0.8333	38.454	25	< 0.0001	HS
20	Avsaada (Depression)	1.167	0.700	0.4667	39.991	17	< 0.0001	HS

Table 3: Effect of Therapy in group II

S. No.	Symptoms	Mean		Diff.	% Relief	N	p value	Remark
		B.T	A.T					
1	Aruchi (Anorexia)	1.233	0.666	0.5667	45.961	17	< 0.0001	HS
2	Avipaka (Indigestion)	2.367	1.133	1.233	52.091	26	< 0.0001	HS
3	Daha(Burning sensation)	2.200	0.733	1.467	66.818	24	< 0.0001	HS
4	Chhardi (Vomitting)	2.167	1.233	0.9333	43.068	28	< 0.0001	HS
5	Shoola (Pain)	1.700	0.833	0.8667	50.982	22	< 0.0001	HS
6	Hrillasa (Nausea)	1.533	0.866	0.6667	43.509	23	< 0.0001	HS
7	Gaurava (heaviness)	0.833	0.500	0.333	39.997	11	< 0.001	S
8	Angasada (Looseness of body)	1.167	0.666	0.5000	42.844	14	< 0.0001	HS
9	Amlodgara (Acid eructations)	2.467	1.033	1.433	58.086	18	< 0.0001	HS
10	Adhmana (Flatulence)	2.267	0.466	1.800	79.400	25	< 0.0001	HS
11	Atopa (Gurgling sound in abdomen)	1.700	0.833	0.8667	50.982	22	< 0.0001	HS
12	Pipasa (Polydypsia)	2.467	1.033	1.433	58.086	27	< 0.0001	HS
13	Jaranshakti (Power of digestion)	1.100	0.500	0.600	54.545	16	< 0.0001	HS
14	Shoka (Grief)	1.167	0.600	0.5667	48.560	19	< 0.001	S
15	Concentration	2.000	0.833	1.167	58.35	28	< 0.0001	HS
16	Sleep	1.100	0.466	0.6333	57.57	18	< 0.0001	HS
17	Anxiety	1.333	0.600	0.7333	55.01	18	< 0.0001	HS
18	Moha (Confusion)	2.167	1.233	0.9333	43.068	28	< 0.0001	HS
19	Krodh (anger)	2.133	0.866	1.267	59.399	28	< 0.0001	HS
20	Avsaada (Depression)	1.100	0.566	0.5333	48.481	20	< 0.0001	HS

Table 4: Overall Effect of Therapy

Effects	Group I		Group II	
	No. of Pts.	%age	No. of Pts.	%age
No improvement	2	6.66	1	3.33
Mild improvement	10	33.33	3	10.0
Improved	13	43.33	18	60.0
Markedly improvement	4	13.33	6	20.0
Complete Remission	1	3.33	2	6.66

In II group highest number of patient 60 % got improvement and 20 % were having markedly improvement, 10 % mild improved and 6.66 % complete remission. In I group highest number of patients 43.33 % were improved, 13.33 % were markedly improved and only 33.33 % were having mild improvement. One patient was having complete remission in this group

Table 5: Effect of Therapy on Manas – Bhava

Effects	Group I		Group II	
	No. of Pts.	%age	No. of Pts.	%age
No improvement	8	26.66	2	6.66
Mild improvement	14	46.66	6	20.0
Improved	7	23.33	13	43.33
Markedly improvement	1	3.33	8	26.66
Complete Remission	0	0.0	1	3.33

DISCUSSION

Results of the study were divided in two groups i.e. Physical symptoms and Manasa bhava (Psychological changes). Discussion given below according to symptoms-

Physical Symptoms

Aruchi: no significant difference was carried out between amalki and Madhuyashti in this symptom efficacy of both drugs are almost similar. Avipaka: in I-group 43 % improvement assessed in group – II, large difference with 52 % shows Madhuyashti is a good medicine to minimize this symptom. Daha: in group – I, 54 % improvement and in II – group 66 % improvement observed which shows the Sheet guna effect of Madhuyashti. Chhardi: Only 30 % improvement seen in I – group while 43 % in group – II. Shoola: in reduction of this symptom 35 % improvement in group – I and 50 % in group – II were noted, so we can say that vata, pitta- nashaka effect of Madhuyashti superior then Amalki. Hrillasa: improvement in the group – I noted 61 % and less i.e. 43 % in group – II. Gaurava: in the reduction of heaviness, both drugs acted similarly i.e. group – I 36 % and in II 39 %. Angasada: similar improvement observed orderly 39 % and 42 %. Amlodgara: 58 % improvement observed in group I, while relief observed 60 % in trial group. So we can say the little bit improved effect of Madhuyashti proved its efficacy. Adhmana: improvement in group – I seen 58 % while a far ahead i.e. 79 % conceived in group – II. Atopa: symptomatic relief in group – I is 35 % and 50 % in group – II so the difference proved that Madhuyashti is better in this contest. Pipasa: very potent effect observed in the reduction of thirst in group – II i.e. 58 % while in group – I it is only 29 %, this improvement shows that sheet, Madhura, guna of Madhuyashti is to minimize the over thirst. Jaranashakti shakti: in this no significant difference noted i.e. 52 %/54 %. All above observations shows the efficacy of Madhuyashti choorna in the reduction of symptoms of Amlapitta is better than Amalaki choorna.

Manasa – bhava

Feeling of sedness: 32 % improvement in group – I and 48 % improvement assessed in group – II thus the effect of Madhuyashti is to minimize this Manasika bhva shows its good intellect property. State of concentration: change of 35 % in first group and 58 % in group – II shows that Madhuyashti is a concentration booster drug. State of sleep: 32 % improvement observed in group – I and far

better i.e. 57 % in group – II, it shows good effect of Madhuyashti in insomnia. Anxiety: 35 % improvement noted in group – I and 55 % in group – II which establish Madhuyashti as a good anti anxiety drug for the treatment of Amlapitta. Moha: the quantity of improvement is only 30 % in I – Group and 43 % in II – group observed. Krodha: in this bhava 38 % relief were noted while 59 % improvement in group – II. Avasada: the Amalaki choorna shows 39 % improvement while Madhuyashti 48 %. In II group highest number of patient 43.33 % got improvement and 26.66 % were having markedly improvement, 20 % mild improved and 3.33 % complete remission. In I group highest number of patients 46.66 % were mild improved, 23.33 % were improved and only 3.33 % were having markedly improvement. 26.66 % patient was having no improvement in this group.

CONCLUSION

On the above basis of result we can be concluded that both drugs were effective alone in alleviating the symptoms of Amlapitta, but the drug Madhuyashti choorna had much greater potential to ameliorate the symptoms on physical and psychological parameters than Amalaki choorna.

REFERENCES

1. Vagbhata: Ashtanga Hridaya with the commentaries Sarvangasundara of Arundatta and Ayurvedarasayana of Hemadri, edited by Pt Hari Sadashiva Shastri Paradakkar, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Nidana sthana Chapter 12, verse 1; 2010. p. 513.
2. Sushruta: Sushruta Samhita with Nibandhasangraha Commentary of Shri Dalhanacharya and Nyayachandrika Panjika of Shri Gayadasacharya, edited by Vaidya Yadavaji Trikamji Acharya, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Sutra sthana, Chapter 46, verse 501; 2012. p. 251.
3. Agnivesha: Charaka Samhita, elaborated by Charaka and Dridhabala with the Ayurveda dipika Commentary by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Vimana sthana Chapter 2, verse 9; 2011. p. 238.
4. Sushruta: Sushruta Samhita with Nibandhasangraha Commentary of Shri Dalhanacharya and Nyayachandrika Panjika of Shri Gayadasacharya, edited by Vaidya Yadavaji Trikamji Acharya, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Sutra sthana, Chapter 46, verse 500; 2012. p. 251.

5. Agnivesha: Charaka Samhita, elaborated by Charaka and Dridhabala with the Ayurveda dipika Commentary by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Sutra sthana Chapter 1, verse 55; 2011. p. 15.
6. Vagbhata: Ashtanga Hridaya with the commentaries Sarvangasundara of Arundatta and Ayurveda rasayana of Hemadri, edited by Pt Hari Sadashiva Shastri Paradakar, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Sutra sthana Chapter 12, verse 13; 2010. p. 101.
7. Agnivesha: Charaka Samhita, elaborated by Charaka and Dridhabala with the Ayurveda dipika Commentary by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Chikitsa sthana Chapter 15, verse 44; 2011. p. 517.
8. Shri Madhavakara: Madhava Nidanam (Uttarardha) with the Madhukosha Sanskrit commentary by Shrivijayarakshita and Shrikanthadatta and the Vidyotini Hindi commentary by Shri Sudarshana Shastri, revised and edited by Prof Yadunandana Upadhyaya, reprint ed. Varanasi: Chaukhamba Prakashan. Chapter 51, verse 3-6; 2008. p. 203.
9. Vriddha Jivaka: Kashyapa Samhita revised by Nepal Rajaguru Pandit Hemaraja Sharma with the Vidyotini Hindi commentary by Sri Satyapala Bhishagacharya, reprint ed. Varanasi: Chaukhambha Sanskrit Sansthan. Khila sthana Chapter 16, verse 7-9; 2012. p. 336.
10. Vagbhata: Ashtanga Hridaya with the commentaries Sarvangasundara of Arundatta and Ayurveda rasayana of Hemadri, edited by Pt Hari Sadashiva Shastri Paradakar, reprint ed. Varanasi: Chaukhamba Surbharati Prakashan. Nidana sthana Chapter 16, verse 31; 2010. p. 538.
11. Kamble Rahul Devidas *et al.* A review on antiulcer medicinal plants. Int. Res. J. Pharm 2013; 4(1): 79-81.

Cite this article as:

Pandit Yogeshwar Krishna, Garg Puneet Kumar, Agarwal Khushboo, Sevatkar Balkrishna, Mehta P.S. A comparative clinical trial of amalaki and madhuyashti choorna in amlapitta. Int. Res. J. Pharm. 2015; 6(3):199-203 <http://dx.doi.org/10.7897/2230-8407.06343>

Source of support: Nil, Conflict of interest: None Declared