

CLINICAL STUDY TO EVALUATE THE EFFECT OF USHNODAK IN MANDAGNI (DEFICIENT DIGESTIVE POWER)

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ABSTRACT

Water is the most important gift by god to mankind and it is *satmya* (adaptable) to all human being. Water gives us life, satisfaction, helps in *Dhatuvridhhi* (growth of tissue element) and *Ojovridhhi* (promoting ojas). Most of the diseases are caused due to *Agnimandya*. It is important to know How, When and How much water should be taken while, after, before taking food and during daytime. *Ushnodak*, which is warm water i.e., not cold and not hot, found to be useful in *Agni* (digestive fire). In this paper, the authors have clinically evaluated the efficacy of *Ushnodak* on *Agni* (Digestive fire), which is found to be one of the means of healthy and better life. For carrying clinical study, 30 subjects were considered. Based on the treatment recommended and its continuous follow up for 40 days, 97 % effectiveness was observed in which 30 % subjects were found to be benefitted with improved results. These were evaluated on the basis of various parameters such as *Abhyavaharan Shakti*, *Jarana Shakti*, and *Ruchi*. So by maintaining *Jatharagni* in normal state, we can prevent further diseases. In view this the practical implementation of this study found to be possible and easily adaptable.

Keywords: *Ushnodak*, *Agni*, *Agnimandya*, *Jatharagni*.

INTRODUCTION

Water is the most important gift by God to mankind. It is *satmya* (Adaptable) to all human beings. The diseases can be cured without using any medicines by following only wholesome regimen. Whereas, even hundreds of medicines can't cure a disease in absence of wholesome regime. The wholesome food is very important for prevention of diseases and it maintains health of healthy person. Wholesome food includes pure water, which is important part of diet. In *Ayurvedic* diet principle, How, When and How much water should be taken while, after, before taking food and during daytime are explained. Water gives us life, satisfaction, helps in *Dhatu-*

vridhhi (growth of tissue element) and *Ojovridhhi* (promoting ojas). Most of the diseases are caused due to *Agnimandya* (diminished power of digestion Ashtang Hriday Ni.12/1⁽¹⁾). Thus by maintaining *Jatharagni* (digestive fire) in normal state, we can prevent further diseases. In view of this, the practical implementation of this study found to be possible and easily adaptable. *Ushnodak*, which is warm water i.e., not cold and not hot, found to be useful in *Agni* (digestive fire). *Su.Su./39-40*⁽²⁾ *Ushnodak* is useful in obesity, urinary disorders, cough, cold, *Agnimandya* (diminished power of digestion), backache, and

early stage of fever. Life starts with water, which is also

Called *amrut* (Antidote against poison), i.e., life.⁽³⁾ There is no substance in the Universe which cannot be used as drug on the condition that they are used rationally and with definite objective Charak Sutrasthan 37/330 //⁽³⁾

Samagni (state that digests the normal amount of food without causing any difficulty) is only *prakrit* (normal) *Agni*, and other types of *Agni* are *vikrit Agni* - *mandagni* (status that reflect a capability to digest only small quantity of food) / *vishmagni* (digest the food sometimes properly and sometimes improperly Charak Chi Chakrapani (15/49-50)⁽⁴⁾. Water is the best medicine. By its use, life becomes healthy, peaceful, gets improvement in *Agni* (digestive fire) and health can be maintained. Water is very important for several diseases. Poor digestion can be easily treated by having a glass of *Ushnodak* (warm water) twice a day warm water digest very easy to digest. *Ushnodak* is used for study is according to *Bhavprakash*, *Vari varga*/86⁽⁵⁾

*yogratnakar Jal varga*1/2,3,4⁽⁶⁾

PATHYAPATHYA

During the study, all subjects were advised for following:

- To avoid *Kapha-Vatavardha Ahara* (diet that aggravates kapha and vat).
- To take Breakfast, lunch, and dinner in fixed time. .
- Easily-digestible food with very little or no spices should be taken. Fried foods should be avoided.
- To avoid late night sleep, afternoon hours sleeping, *vegavarodh* (suppression of manifested urges), *chinta* (tension).

AIM: To evaluate effect of *Ushnodak* (warm water) in *Mandagni* (capability to digest only small quantity of food)

OBJECTIVE

To prevent *AamjanyaVyadhi* (residual juice of undigested food)

H0: There is no significant improvement by using *Ushnodak* on *Agni*.

H1: There is significant improvement by using *Ushnodak* on *Agni*.

MATERIALS AND METHODS

Total 50 subjects were selected for evaluating the effect of *Ushnodak* in *Mandagni*. 30 subjects were included in this study. The subjects were selected irrespective of marital status, economic status, sex, religion, and occupation.

Selection of subjects:

A) Inclusion criteria:

Subjects were selected on the basis of criteria fulfilling state of *Agnimandya*. According to Ch.VI 8/89⁽⁶⁾, *Agni* assessment depends on three components viz: *Abhyavaharan Shakti*, (capacity to eat), *Jarana Shakti* (capacity to digest), and *Ruchi* (appetite).

The age group of subjects was preferred as 20-50 years.

B) Exclusive criteria:

1. Patients suffering from chronic diseases
2. *Agnimandya* causes due to medicine
3. Subjects having *Tikshagni* (state of hyper functioning of digestion and metabolic activity), and *Samagni* (moderate *Agni*)
4. The age group of subjects was preferred as below 20 years and above 50 years

The subjects studied were diagnosed and assessed on the basis case record forms (CRF). These were obtained on the basis of signs and symptoms of *Agnimandya*. The age group preferred was 20-50

years. Routine hematological examination was carried out taking an experimental group consisting of 30 subjects. The study

parameters and description are given in table 1.

Table 1: Study parameters and description

Sr. No.	Study Parameters	Description
1	Place of work	OPD of Swasthyarakshan, D.Y. Patil College of Ayurved and Research Institute, Nerul
2	Study Type	Open Randomized uncontrolled clinical trial
3	Study group	Consisting of 30 subjects.
4	Matra	300 ml Ushnodak was suggested
5	Kala	Early in morning and late night
6	Duration of study	40days

Procedure: The CRF proforma was prepared mainly on the Ayurvedic guidelines and observation noted. The follow up taken is give below:

- a) 1st follow up - 10th day
- b) 2nd follow up - 20th day
- c) 3rd follow up - 30th day

d) 4th follow up - 40th day

Criteria for gradation:

I. Abhyavaharan Shakti (capacity to eat) is represented in Table2.

Table 2: Gradation chart: Abhyavaharan Shakti

Lakshana	Score
Person taking food in less quantity twice in a day	0
Person taking food moderate quantity twice a day	1
Taking food in normal quantity thrice a day	2
Taking food in more quantity more in a day	3

II. Jarana Shakti (Power of digestion, Digestive capacity)

According to (Ma.Ni.6/4) ⁽⁷⁾ *Utsah* (enthusiasm), *Laghuta* (feeling light), *Udgarshuddhi* (clear eructation), *Kshudha* (hunger), *Trishna* (thirst), *Yathochit*

Malotsarga (proper bowel movement) are the symptoms of proper digestion is represented as in table 3.

Table 3: Gradation chart – Jarana Shakti

Lakshana	Score
+ce of one symptom	0
+ce of two symptoms	1
+ce of four symptoms	2
+ce of all symptoms	3

III. Gradation chart – Ruchi (appetite) is represented as in Table 4.

Table 4: Gradation chart – Ruchi

Lakshana	Score
Total unwilling for meal	0
Willing towards only most liking food	1
Willing towards some specific food	2

Equal willing towards all food stuffs	3
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Criteria for overall assessment of therapy:

- Complete relief 100 %
- Marked improvement 75%
- Moderate 50-75%
- Mild 25-50%
- Unchanged < 25%

record forms and were presented in the form of tables of 30 subjects. The distribution of according to age and gender, occupation, causative factor, *Agni*, and *Prakriti* (constitution) are presented in Table 5-7.

Distribution according to Age and gender

Table 5: Age and gender-wise distribution

OBSERVATIONS AND RESULTS

I. Observations: The observations were made on the basis of data collected by case

Sr. No.	Age (years)	Male	Female	Total
1	20-30	2	7	9
2	30-40	2	7	9
3	40-50	5	7	12

Distribution according to occupation were considered as represented in Table 6.

Occupation: wise, four categories w

Table 6: Distribution of occupation

Sr. No.	Occupation	Male	Female	Total
1	Housewife	0	7	7
2	Service	6	5	11
3	Business	3	4	7
4	Student	0	5	5

Distribution according to hetu (Causative Factor)

The various causative factors *Aaharaj* (improper diet) and *viharaj* (improper activities pertaining to physical, mental and

speech) were considered for the studies are represented in Table 7.

Table 7: Distribution of Causative Factor

Sr. No.	Causative Factor	No. of Subjects	Percentage
1	<i>Akala Bhojana</i> (improper timing of food intake)	18	60
2	<i>Diwaswapna</i> (afternoon nap)	9	30
3	<i>Ahitasan</i> (not favorable food)	22	73.33
4	<i>Adhyasan</i> (food taken in excess quantity)	12	40
5	<i>Atyambupana</i> (drink excess water)	2	6.67
6	<i>Ativyayam</i> (extra exercise)	2	6.67
7	<i>Ratrijagaran</i> (late night Sleeping)	15	50
8	<i>Vegvidharan</i> (suppression of manifested urges)	19	63.33
9	<i>Chinta</i> (stress)	13	43.33

Because of all above *aaharaj*(diet) and *viharaj*(lifestyle) causative factor *Agni* be-

came abnormal that is *Mandagni*. In *viharaj hetu -akal bhojan*(improper timing of

food intake) and *vegvidharan* (suppression of manifested urges) found in most of the subjects and in *Aaharaj hetu -Ahitashan* and *Adhyashan* found in most of the subject.

Mandagni(diminished power of digestion) -*Jatharagni* is classified into four categories according to its performance of digestion in the human being (Cha. Chi. 15/51)⁽⁸⁾. When *Vata* and *Kapha* are higher than normal, the condition is known as *Mandagni*. It is slow digestive power or digestive capacity. Those who are having *Mandagni* eat very little and are unable to digest the smallest amount of food i.e., digests the least amount of food in the greatest amount of time. Digestive fire is included within *Agni*, which is specially meant for different enzymatic activities of the body, i.e. *pachana* (digestion), *deepen* (assimilation), *bhedana* (elimination of waste product), etc. (*Chakrapani Tika* on Cha.Su.-12/11)⁽⁹⁾.

Results:

Sr. No.	Parameter	W	T+	T-	N	p-value	Significance
1.	Abhyavharan Shakti	-465	0	-465	30	< 0.0001	Extremely Significant
2.	Jaran Shakti	-465	0	-465	30	< 0.0001	Extremely Significant
3.	Ruchi	-435	0	-435	29	< 0.0001	Extremely Significant
4.	Agni	-465	0	-465	30	< 0.0001	Extremely Significant

CONCLUSIONS

1. Highly significant improvement was observed after 40 days.
2. Total 97% subjects were benefited by this study and no adverse effects were observed.
3. Developing habit of consuming *Ushnodak* every day in the morning and late night helps in improving *Agni* to prevent further diseases.

Effect of therapy on Agni

Total 30 subjects were taken for experimentation. The effectiveness observed after experimentation is as follows:

- 30% subjects showed marked improvement
- 46% subject showed moderate improvement.
- 20% subjects showed mild development
- 1 remains unchanged.
- Total 97% subjects benefited by the study.

STATISTICAL ANALYSIS

Test applied: - Wilcoxon signed-rank test

H₀: No significant difference due to Luke Warm Water treatment.

H₁: Significant difference due to Luke Warm Water treatment.

Decision Criterion: Reject H₀ if p value is less than 0.05.

Table 8: Statistical Analysis

4. Thus, daily intake of *Ushnodak* improves *Agni*.
5. For better result in *Agnimandya* or diseases caused by *Agnimandya* *Ushnodak* will be effective as *anupan*(drink taken with or after medicine)with *deepana pachana dravyas* (appetiser and digestive drugs).

DISCUSSIONS

The '*Deepana*' (stimulation of digestive power) property of warm water causes expansion of *strotas* (microchannels) of

digestive juices. The *ushnodaka* causes digestion of *Aama*, *Kapha* and to expel them through bowels with *ushnodaka*. The mucous and *Kapha* get eliminated easily and the ailment gets attacked right at the root. Thus *ushnodaka* expands the micro channels carrying *Doshas* (according to Ayurveda three dynamic substances), *Dhatus* (fundamental tissue), and Wastes, removes their sluggishness, makes them soft. The elasticity of these channels is restored gradually. This will help rebalance each dosha. The increased hunger as a result of increased flow of digestive juices causes proper digestion of food resulting into increase of *dhatu*.

Warm water is good for digestive health. Ayurveda considers water as the essential *panchmahabhuta*, emphasizes on self-healing using *panchmahabhuta* which is basically the five elements of the environment. *Agni* converts food in the form of energy, which is responsible for all the vital functions of our body. Therefore, *Ayurveda* considers that *Dehagni* (body intensity) is the cause of life, complexion, strength, health, nourishment, lusture, *oja*, *teja* (energy) and *prana* (life energy) (Cha. Chi. 15/3)⁽¹⁰⁾

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