Clinical Research

Comparative study of Upavasa and Upavasa with Pachana in the management of Agnisada

Ami Rajani, Mahesh Kumar Vyas, Hitesh A. Vyas

Department of Basic Principles, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat, India.

Abstract

Ayurvedic management is not only concerned with the cure of the diseased person, but is also meant to maintain the health of the healthy person because it is used for Dhatusamya. Langhana is the prime tool in the process of Dhatusamya. In this research study, Upavasa plus Pachana and Upavasa (among ten types of Langhanas) are applied in two different groups, using the random sampling method. Upavasa is taken as Hina Matra Bhojana — that is, gradually increasing the dose of Ahara (by Padanshika Krama) was applied on the basis of the Ahara Shakti of the Atura and status of the Agnisada. Furthermore, for the Pachana, Shunthi (Zingiber officinale) was selected. The subjects for the study were patients who had signs and symptoms of Agnisada and were between the age group of 20 and 60 years. In Group A (Upavasa plus Pachana) 83.77% and in Group B (Upavasa) 72.97% improvement was found, which was statistically highly significant (< 0.001). Upavasa plus Pachana and Upavasa were both found beneficial in promoting the Agni in patients with Agnisada. However, in the percentage-wise comparison Group A showed better result than Group B.

Key words: Langhana, Upavasa, Hinamatra Bhojana, Padamshika Krama

Introduction

Every science has its own principles and these principles could not have been made up at once. The principles of Ayurveda are based on strict experimental studies of several years and are the outcome of those studies. Several Acharyas have tested these principles for many years and only after that they have been placed in the Samhitas. This process is needed for the establishment of the applied aspect of Ayurveda in the modern era.

Agni is the primary and most important component of the body. Any transformation in the body cannot occur without it. In the condition of the cessation of Agni one dies.[1] Jathragnimandya is an abnormal status of the Annavaha Srotasa, which is the initial condition of any disorder, and it is an accepted fact by all the writers that Agnimandya forms an integral part in the pathogenesis of each and every disease.[2] The definition of Agnimandya could be understood as the inhibited activity resulting in delayed or partial digestion or indigestion of food even in small measures at proper intervals and by the production of Ama and abnormal Lakshana related to the Mahasrotasa and having a tendency to affect the Rogamarga. Many synonyms were described in the Samhitas for Agnimandya, which are, Agnisada, Durbalagni, Agnivadha, Hatanala, Agninasha, and so on. Here, in this particular study, the Agnisada is taken among these synonyms. As per the dictionary meaning, Sada means sinking down / exhaustion / decay / loss. Hence, the meaning of Agnisada is exhaustion of Agni and the like. No direct reference had been found for the Nidanas of Agnisada, but the Nidana of Asamyaka Pachana of the Ahara, which is given by Acharya Kashyapa,[3] can be taken as the Nidana of Agnisada.

For the assessment of the status of Agnisada a special proforma was designed, wherein, the Abhyavaharana Shakti and Jara Shakti of each individual patient were analyzed. For the Abhyavaharana Shakti the Sarvagrahana and Parigrahana Ahara Matra of the patients were calculated and for the Jara Shakti the symptoms of the Jirna Ahara Lakshana, given by Acharya Shasruta in Swasthivritta Adhyaya of Uttarasthan, were taken as the criteria for assessment.

Ahara is stated to be a Karana of the Sharira as well as Roga,[4] hence, the treatment could also be with Ahara. He management of diseases in Ayurveda starts with the Nidana Parirjara. In the Ayurvedic text, Langhana is stated to be the best treatment for Santarpanotha Vyadh. Here, Langhana has been described under a broad aspect, and ten treatment modalities have been grouped under this umbrella. The definition of the Langhana is given as that which causes lightness of the body.[5] Here the Upavasa and Pachana types of Langhanas were compared by the scholar to understand

Address for correspondence: Dr. Ami Rajani, Chaitanya, 32, Shiv Srishhti Society, Behind IOC quarters, Opp. Rani Tower, Kalawad Road, Rajkot, India. E-mail: rajani_am82@yahoo.co.in
Aims and Objectives

1. To evaluate the efficacy of the Langhana Upakrama on the Digestive disorder, especially Agnisada.
2. To compare the efficacy of Upavasa and Upavasa along with Pachana in the management of Agnisada.

Materials and Methods

Conceptual material

1. For the conceptual study, various texts and journals had been referred.

Clinical material

1. Patients having classical signs and symptoms of Agnisada were selected from the inpatient department (IPD) and outpatient department (OPD) of the Basic Principles Department of I.F.G.T. and R.A., Jamnagar.
2. To assess the status of Agnisada, a specific research Proforma was developed on the basis of Abhyavaharanah Shakti and Jarana Shakti.

Criteria for selection of patients

Patients between the age of 20 and 60 years, having classical symptoms of Agnisada, were selected.

Criteria for exclusion of the patients

1. Patients below 20 and above 60 years were excluded.
2. Patients with chronic debilitating diseases such as Rajayakshama, Madhumeha, hypertension, genetic disorders, and other acute systemic disorders had been excluded.

Design of Groups and Management

Group A —
Upavasa + Pachana
Drug: Shunthi tablets (each containing 500 mg)
Dose: Four tablets twice a day after meals
Anuvapana: Luke warm water
Duration: Seven days

Group B —
Upavasa + placebo
Drug: Roasted Soji tablets (each containing 500 mg)
Dose: Four tablets twice a day after meals
Anuvapana: Luke warm water
Duration: Seven days

The diet schedule given to the patients during treatment, where Matra of the Ahara was increased, was given for seven days. The patients were advised to fast on the first day and for next three meals, including lunch and dinner, one-fourth of this diet was given. For the next three meals half of the diet was given and for the three meals following, three-fourth of the diet was given. After this the following three meals consisted of the full diet.

Criteria of assessment

Total assessment criteria as per reduction in Vyadhi bala, Samyaka Agni Deepana, and Improvement in Atura Bala:

1. Cure 100%
2. Mild improvement > 75%
3. Moderate improvement > 50%
4. Improvement > 25%
5. Unchanged < 25%

The information gathered on the basis of the above-mentioned observations was subjected to statistical analysis in terms of mean (x), standard deviation (S.D.) and standard error (S.E.). The paired ‘t’ test was carried out at P < 0.05, P < 0.01, and P < 0.001 levels. The obtained results were interpreted as:

Insignificant P > 0.05
Significant P < 0.05 or P < 0.01
Highly significant < 0.001

Observations

A total of 59 patients were registered. In group A, 30 patients completed the treatment, while four patients Left Against Medical Advice (LAMA). In group B, 25 patients completed the treatment, while one patient LAMA. Among the 54 patients, 44.07% were from the age group of 30 to 39 years. Adhyashana (55%), Vishamashana (36.67%), Samashana (50%), Amrutavata Bhojana (50.85%), Irregular dietary habit (71.19%), habit of water intake after meal (83.05%), and Atanmana Bhusnitam (61.01%) were reported by the patients. In the Sharirika Prakriti-wise distribution, the maximum number of patients, that is, 25.42% had Vata – Kapha Prakriti.

In the Nidana-wise distribution, AtiGuru Bhojana was (47.46%), while Atibhojana and Atisingadhika Bhojana was found to be 50.85 and 40.86%, respectively. In the Viharika-wise distribution 55.93% patients had the habit of Divaswapa and 44.07% had the habit of Ratri Jagarana. In the Manusika Nidana-wise distribution Chinta was found in 69.49% of patients.

In the Lakshana-wise distribution, decreased Abhyavaharanah Shakti was found in all the patients, a decrease in Kshudha, Klama Parigamana, and Kukshi Shaaitihya was found in 94.91, 88.14, and 83.05%, respectively. Decrease in Utsaha was found in 81.35% of the patients. Asamayaka Mala Pravritti was found in 81.35% of the patients. Among them thrice the Mala Pravritti was found in 16.95 and 23.73%, respectively. Ayathakala Mala Pravritti was found in 21.81% of the patients. However, a decrease in Annashraddha and Deha Laghuta was found in 76.27 and 72.88%. Asamayaka Udgarana, Vata, and Mura Pravritti were found in 61.02, 57.63, and 45.76%, respectively. Chronicity of one to two months of the Vyadhi was found in 55.93% and a duration of 15 to 30 days was found in 45.76%.

Effect of therapy on Lakshanas

The effect of therapy on various lakshanas is shown in Figures 1(a) & (b). Table 1 shows that in the percentage-wise comparison of Group A and Group B, Group A showed better results than Group B. However, the ‘t’ value of Group B was greater than that of Group A.
Table 1: Total effect of therapy

| Total effect of therapy | No. of patients | (%) imp | BT mean Score | AT mean Score | SD (±) | SE (±) | T    | P value |
|------------------------|----------------|--------|---------------|---------------|--------|--------|------|---------|
| Group A                | 30             | 83.77  | 17.67         | 2.87          | 4.37   | 0.80   | 18.53| < 0.001 |
| Group B                | 24             | 72.97  | 16.5          | 4.45          | 2.86   | 0.59   | 20.58| < 0.001 |

**Discussion**

**Observations**

The maximum number of patients (50.85%) were taking Amravinata Aahara, which is called as “Survodasha Prakopaka”.[12] Adhyashana (55%), Vishamashana (36.67%) Samashana (30%) was found. According to Shushrutaacharya these three are “Bhuvadyahikaraka.”[13]

The maximum number of patients (25.42%) had a Vata-Kapha Prakriti, and it was already mentioned in the Charaka Samhita, that the Doshas that are dominant in the formation of the Prakriti are more prone to vitiate immediately, than others.[14] Hence, the vitiation of Vata leads to Agnivaishamya and the vitiation of Kapha leads to Apyamsha.

The maximum number of the patients (83.05%), had a habit of water intake after meal, which is “Kapha Prada” as per Acharya Bhava Prakasha,[15] which further leads to the vitiation of Agni.

The maximum number of patients had done Divaswapa (55.93%) in their routine life. Divaswapa is Kapha Prakopaka, while Ratnijaganana increases the Vata, which is the main cause of Agnivaishamya, which may lead to Apyamsha.

In the present study Ayathakala Mala Pravritti was found in 28.81%, which showed that the vitiated Agni directly affected the time period in which the Mala formation occurs. Mala Pravritti (23.73%) two to three times and more than three times (16.95%) indicates that in Agnisada the function of normal Agni, that is, Saru and Kitta Vivekan is vitiated, due to which the proper Matra of the Mala is not excreted at one time, hence, Muhura – Muhura Mala Pravritti occurs. Constipation is found in 8.47% of the patients and is due to Krura Kostha (8.33%).

Both the groups statistically show highly significant results of Mala Pravritti, but Group A (80.76%) shows a better result than Group B (67.65%). Shunthi is said to be Grahi as well as Vibhandhanuta. When the Mala Pravritti is more than two to three times, Shunthi being Agni dominant, it absorbs the excess Apyamsha. As a result it binds the Mala, which has excess fluid and gives the Grahi effect, and act as a Vibhandhanuta, due to its Prabhava.[16]

In a percentage-wise comparison of both the groups, group A showed better result than group B, but the ‘t’ value of Group B is greater than that of Group A. This is because the number of patients is not equal in both the groups.

In a percentage-wise comparison of both the groups, group A shows a better result than group B, the reason behind it is that in group A, the effect of Deepana (due to Langhana) and Pachana (due to Shunthi) are both present, while group B mainly has the Deepana (due to Langhana). In Group B only Upavasa is advised, whereas, in Group A Upavasa plus Pachana is advised. In both the Groups, an increasing quantity of food was given. Hence, a highly significant result was found in both the groups.

**Mode of action of the Upavasa**

Mode of action of the Upavasa can be understood in this manner: If Agni does not get fuel in the form of food, it starts digesting Dosha. Agni for its existence needs a constant feed of fuel. As a routine the food serves as the fuel. In the absence of food, in the preliminary stage Agni uses Dosha as fuel.[17] This special property of Agni is used as a treatment modality. The mode of action of the Upavasa can also be understood with the help of modern science. If the consumption of the glucose is decreased, the glycogen, then fat, and in the last stage, protein, is broken down for the supply of glucose to the tissue, which is similar to the view of Ayurveda.

Acharya Vagbhata has mentioned that Langhana
1) Decreases the Doshas
2) Increases the Agni
Hence it increases the Swasthya, Kshudha, Trishna, Ruchi, AgniBala, and Oja.[18]

**Padamshika Krama**

Food taken in optimum quantity is termed as Matravat.
Ayurveda believes that every human being is unique and different from others; hence the needs for everything are different from one to another. The hunger or the quantity of food needed also differs from one person to another. Therefore, it is not possible to decide a specific quantity of food that will be applicable to all. Besides the Prakriti of human beings, the nature of food items is also variable. Hence, the study of the Schedule of Aharamatra is prepared according to the capacity of food intake of an individual.

Why the Padamshika Krama? Here, in this research study, the increasing method of food was applied. The reason behind this is that by gradually decreasing the Apathy, the Apathy can be completely stopped, due to which the recurrence of the vitiated Doshas is avoided, and the good properties thus inculcated are sustained for a long time.[30]

Mode of action of the Shunthi
Shunthi is described in both Deepaniya and Rachaniya Gana; A Pachana Dravya performs the digestion of the Ahara, but does not increase the Agni. In Agnisada, Ama (undigested food) is formed. Shunthi enters in this Ama and creates Akasha to make a path for Agni to enter and perform its function.

Conclusion
Drugs that stimulate the digestive power are dominant in Agni and Vaya Mahabhutas. Taking into consideration the total effect of therapy, Group A showed better result than Group B. Hence, it is concluded that the combined Langhana therapy, that is, Upavasa and Rachana, shows a better result than Upavasa only.

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हिंदी सारांश
अग्निसाद में उपवास एवं उपवास-पाचन का तुलनात्मक अध्ययन
अमी राजाणी महेशकुमार व्यस्स हिलेश व्यस्स
आयुर्वेदिय चिकित्सा मात्र रूपन तक सीमित न रहते हुए धातुसम्य ब्राह्मचर्य स्वस्थ्य को भी बनाए रखते हैं। धातु साम्य के प्रयोजन को सिद्ध करने वाला प्राण साधन तंबून ही है। इस अनुसन्धान कार्य में अग्निसाद के रूपन को तंबून के तौर पर उपवास तथा पाचन (गुप-अं) एवं केवल उपवास (गुप-बं), ऐसे से कामों में विभाजित किया। सुशुद्धता सिद्धान्तानुसार उपवास से हीन मात्रा भोजन प्रभावित किया गया। पादार्थिक क्रम के अनुसार क्रमशः: आहार मात्रा वृद्धि आन्तर्गत बन जाते एवं अग्निसाद की अस्थित्व के आधार पर की गयी, तथा पाचन औषध के रूप में शृङ्खल प्रस्तुत की गई। प्रायोगिक अध्ययन में २० से ६० वर्ष आयु वाले तथा अग्निसाद के शास्त्रीय लक्षणों वाले रूपन को समायोजित किया गया। सुप-अं में ८.३०८% तथा गुप-बं में ६.२७९% लक्षणिक लाभ प्राप्त हुआ, जो साध्यकीय विश्लेषण के अनुसार उद्द सार्थक परिणाम माना जाता है। उपवास + पाचन एवं केवल उपवास दोनों ही वर्ग अग्निसाद चिकित्सा हेतु लाभकारी दृष्टिकोण शुरु हुए। लेकिन प्रतिशत के रूप में देखा जाता है तो गुप - अ के परिणाम, गुप - ब की अपेक्षा अधिक उत्तर प्राप्त हुआ।