

**ANNA SAMRAKSHANA AND AHARA VIDHI VIDHANA AT PRESENT
PANDEMIC COVID -19****Rekha B. V.¹ and Rini P.^{2*}**

¹Professor & Guide, ²P. G. Scholar, Department of P. G. Studies in Swasthavritta,
Government Ayurveda Medical College, Mysuru, Karnataka.

Article Received on
27 July 2021,
Revised on 16 Aug. 2021,
Accepted on 05 Sept. 2021
DOI: 10.20959/wjpr202112-21509

Corresponding Author*Rini P.**

P. G. Scholar, Department
of P. G. Studies in
Swasthavritta, Government
Ayurveda Medical College,
Mysuru, Karnataka.

ABSTRACT

Ayurveda aims to promote and preserve the health, strength and the longevity of the healthy person and to cure the disease by properly channelling with and without Ahara. In present era, diet and lifestyle are major factors thought to influence susceptibility to many diseases. Ayurveda places special emphasis on Ahara and believes that healthy nutrition nourishes the mind, body, and soul. According to Ayurveda the living human body and diseases that afflict it is both the product of Ahara. Ahara is considered as one of the key pillars (Upstambhas) of life in Ayurveda. The concept of Ahara from the collection of food to preservation of food is dealt under the dietetic principles of Ayurveda. The standards for safe food practises developed as part of food safety

measures appear to be focused on food ingredient manufacturing, processing, packaging, and environmental tuning. When it comes to food, safety is a concept that is influenced primarily by the person who consumes it. The Nitya sevaneeya aharas explained in classics provides all macro and micro nutrients which will enhance the immunity. In today's world, altered habits of food consumption may lead to various diseases. So many guidelines are explained in Ayurveda, which are titled as Ahara vidhi, where the laws of do's and don'ts about diet and drinks are given. This article will review the Ahara samrakshana and Ahara vidhi vidhana in COVID-19 pandemic.

KEYWORDS: Covid 19, Ahara vidhi vidhana, Food safety, Anna samrakshana.

INTRODUCTION

COVID-19, which has grown into a global human hazard, is one of the key infections that primarily target the human respiratory system. It's a difficult scenario because of the

coronavirus's ubiquity and the need to focus on the individual's immunity to combat it. Ayurveda is a system of medicine that preserves a healthy person's health while also preventing sickness in those who are sick. Ahara (Diet) is the total amount of food consumed by a person, and it frequently refers to the utilisation of a specific nutritional intake for health.

A balanced diet is one of the most important factors in maintaining good health. Unhealthy eating habits, on the other hand, are linked to a variety of ailments. So, while eating plays an important role in Ayurveda, a nutritious diet encompasses a wide range of aspects, including what is known as "Ahara vidhi," which outlines the dos and don'ts of diet and beverage use. A healthy diet necessitates much more than just having enough nutrients, and Ayurveda places a premium on all aspects of Ahara and Ahara vidhi. The relationship between people and the food system is evolving at an unimaginable rate as the pandemic spreads, and it is becoming increasingly important in daily life, with strict restrictions imposed on people's movement to limit the spread of COVID-19.^[1] At the individual level, the correlation between diet and immunity is the common denominator that drives most of the nutrition and dietary guidelines to fight viral infections, like COVID-19. Specific nutrients or nutrient combinations have been shown to affect the immune system by activating cells, altering the production of signalling molecules, and altering gene expression.^[2]

Ayurveda is not only a medical discipline, but also a holistic science of life that focuses on disease prevention, treatment, and management. The ingestion of Hita, Avirudha, Satmya, and Nitya sevaniya ahara on a daily basis keeps a person disease-free; hence diet should be planned according to the Ashta ahara vidhi viseshayatana.^[3] The Nitya sevaniya dravyas, which is a kin to the balanced diet, was explained by Acharya Charaka and Vagbhata. To draw international attention to the Ayurvedic system of medicine's nutritional programmes, a significant deal of attention must be paid to the function of dietary components in health promotion. Preventive strategies are the foundation of Ayurveda, and food plays an important role because both the body and disease are products of food.

MATERIALS AND METHODS

Information were collected and documented from relevant Ayurvedic and Modern literatures, various websites & online published research articles.

DISCUSSION

Asha ahara vidhi viseshayatana (Special rule for diet intake)

A healthy diet necessitates much more than just providing enough nutrients, and Ayurveda places a premium on all aspects of Ahara and Ahara Vidhi. The reasons responsible for the wholesome and unwholesome effects of the Ahara, as well as the methods of Ahara sevana, are referred to as Ahara vidhi viseshayatana (Special rule for diet intake).

Prakriti

The Prakriti of the food can aid in making decisions based on digestive ability or a person's Prakriti. As a result, there will be no problems and the food will be well digested. Adequacy and balance of diet-these two principles of modern dietetics are covered under Prakriti. The food which we are consuming should contain proper amount of six nutrient classes i.e. water, carbohydrates, fats, proteins, vitamins and minerals for performance of essential functions. Each nutrient class should be in a balanced proportion in that complete diet.

Karana (Samskara)

This refers to the Samskara or the preparation of food for consumption. Cleaning, soaking, cooking, grinding, impregnation flavouring, maturing, preservation, and food storage are all steps in the Samskara process. It is basically modification in properties of food stuff by various samskaras i.e. Jala samyoga, Agni samyoga, Shaucha, Manthana, Desha, Kaala, Bhavana, Kaala prakarsha and Bhajana.

Samyoga

When two or more foods are combined, it can be beneficial or harmful. If these combinations are mixed, it is important to know which characteristics are inherited. For example, an equal amount of honey and ghee, or a fish and milk mixture, can be harmful to one's health. Combinations of nutrients create magic in diet. If we see it in broader aspect, it's simply principle of density which means packing of most nutrients in a diet.

Rashi

This refers to the amount of food available. The amount of food consumed varies by person. However, the amount of food consumed should not be excessive or less than the desired amount, as both are unhealthy. As a result, food should be consumed in the appropriate quantity based on the individual's digestive capacity. After selecting what to eat "how much

factor” should be analyzed. Charaka mentioned Sarvagraha and Parigraha is which in broader aspect is adequacy of diet and calorie control of diet respectively.

Desha

It refers to the geographical area in which food is grown. Food is grown in the parts of the World that are most appropriate for the people who live in those areas. As a result, selecting food from the appropriate area would be beneficial. Few areas are quite famous for top production of certain grains and pulses etc.

Kaala

The two forms of Kaala for the use of Ahara are Nityaga and Avasthika. Seasonal variations affect Nityaga Kala, in which Ahara is consumed according to a regular routine. The Avasthika kaala, which means diseased conditions, comes into play when food is consumed in accordance with the disease's state.

Upayoga samstha

Specific Rules have been stated in relation to food intake. This is known as the Upayoga samshta, which simply means "dietetic law." It covers everything you need to know about diet, including how to eat, when to eat, and what to eat. Upyoga samstha depends on Jeerna lakshana which is understood by symptoms like Udgaara shuddhi, Utsaah, Yathochit vegautsarga, Laghuta, Kshudha (hunger), Pipasa (thirst). Wide range of symptoms is described in Ayurveda stating when to eat food.

Upayokta

Upayokta is a person who consumes food (Ahara dravya) and is accustomed to it (Oka satmya or Sharira satmya). He is the one Ahara, and he eats as he pleases and gains health as a result of this.^[4]

Based on the above, it can be inferred that food should be consumed in accordance with Ayurvedic (Aharavidhi viseshayatana) dietary recommendations, which are genuinely scientific. Diseases can be avoided simply by changing one's eating habits. Healthy eating habits can help to reduce the risk of a variety of other health issues.

Nityasevaneeya ahara (The concept of balanced diet)

Nutrition is the most important because from a proper wholesome and balanced diet, all the body constituents — Dosha, Dhatu and Mala—are formed. That is why it is said that ‘we are

what we eat'. Food is not only essential for our physical well-being but it provides nutrition for our mind as well.

According to modern science balance diet measured in calories, which is easily digestible for every person. Balanced Diet in Ayurveda for Ideal Health is elaborated in detailed mannered as Agni, Vaya, Avastha, Kala, Desha, Prakriti and Koshta. Ex:Mandagni person should have to consume Mridu and Laghu Bhojana while Tikshangni person Guru and Snigdha food. Nitya Sheelaniya Ahara Dravyas are completely full of Shadrasa, which is very essential for our perfect health. These Dravyas fit for day to day food habit in proper quantity.

Nitya sevaniya ahara	Nutrition
Shashtika shali	Carbohydrate
Yava	
Madhu	
Mudga	Protein
Jangala mamsa	
Amalaka	Vitamins
Saindava	Minerals
Antariksha jala	Fluid
Ksheera	Proximate principles
Sarpi	Fat

a) Shashtika shali (Rice) is a strong source of energy, as well as a large supply of protein, minerals, and B vitamins. It accounts for 70 to 80 % of total energy use. Rice proteins have a higher concentration of lysine, an important amino acid, than other cereal proteins.^[5]

b) Mudga (Green gram) – Among Shimbhi dhanya, Mudga is the best. It is the most important source of protein. It's also rich in minerals and B vitamins.^[6]

c) Saindhava lavana (Rock salt) - It stimulates the appetite and enhances the flavour of the food. It is preferred over regular cooking salt because it has a lower water retention capacity, making it beneficial to people with heart disease, hypertension, and kidney illness.

d) Amalaki (Embllica officinalis) is the most concentrated source of vitamin C. Phyllemblin, Gallic acid, tannins, pectin, and ascorbic acid are the active components in Amalaki (Vitamin C). Vitamin C comes in a unique form that is very easy for the human body to absorb. It's well-known for increasing calcium bioavailability and absorption, resulting in stronger bones, teeth, hair, and nails. It also aids iron absorption for a healthy blood supply. It is extremely beneficial to the eyes, heart, and digestive system. Amalaki is also great for keeping stomach acidity in check. When combined with a high-protein, high-nutrient diet, Amalaki has a unique activity that promotes strength and lean muscle growth.

e) **Yava (Barley)** - Ancient writings and recent research trials both support the use of Yava as Pathya and Aushadha.^[7]

f) **Antariksha jala (Rain water)** is the purest and most abundant source of water in the world. Antariksha jala (sky water) is tasteless and has attributes such as nectar, important for life, satiating, maintaining the body, stimulating, and allaying exhaustion, lethargy, thirst, drunkenness, fainting, drowsiness, sleep, and scorching sensations.

g) **Go-Ghrita (Cow's Ghee)** - It can form bonds with lipid-soluble nutrients and herbs, allowing them to pass through the body's lipid-based cell walls. In nature, it is Pitta-Vatahara, beneficial to Shukra, Oja, Swara, Varna, Nirvapanam, and Samskara anuvartanam. Ghrita acts as a Vrana shodhaka and Vrana ropaka, removing toxins from the body.^[8]

h) **Jangala Mamsa (Animal Flesh)** – Animal meat has 20% protein and 3-5% fat; 100g of meat will provide 194 calories of energy if consumed. Jangala mamsa is a high-protein, high-biological-value meat that contains all of the essential amino acids and vitamins, as well as iron and phosphorus in suitable amounts.

i) **Madhu (Honey)** is made up of 38 % fructose, 31 % glucose, 1 % sucrose, and 9% other sugars, as well as water and trace amounts of vitamins, minerals, and acids. Honey has also been used topically to treat ulcers, burns, and wounds as an antiseptic therapeutic agent. It is an excellent diet for lowering cholesterol and thereby preventing ailments such as coronary heart disease and obesity.^[9]

j) **Dugdha (Cow's Milk)** is one of the greatest rejuvenating foods. It has a well-balanced mix of all nutrients. Protein, fat, sugar, vitamins, and minerals are all abundant in it. All of the necessary amino acids are found in milk protein. The milk of cows roaming in Jangala, Anupa, and hilly areas is heavy for digestion in successive orders, and its unctuousness is determined by the type of food consumed by the animal.

DIET in COVID-19

Adopting the Ashta ahara vidhi and Nitya sevaneeya ahara concept Shad-rasayukta ahara, one should consume foods which are Madhura, Amla, Lavana, Katu, Tikta, and Kashaya rasa to enhance the strength. One should not practice eka rasa ie, only the particular food which is having single taste and Apararpana ahara i.e, non-nourishing food), Laghu, Snigdha, Ushna, Drava, Sthira, Sara and Teekshna guna. Laghu ahara (light food), Ushna ahara (food served should be hot) & Maatrayukta ahara (quantity sufficient) is to be provided based on his/her Agni bala (digestive power). The Ahara which are Picchila, Khara, Ruksha and Abhishyandhi guna which causes aggravation of Kapha are to be avoided.

- **Shooka dhanya:** Puraana dhanya (More than one year old stored cereals will not increase the kapha and it is light for the digestion) such as Shaali (Rice), Yava (Barley), Godhuma (Wheat).
- **Shami dhanya:** Kulattha (Horse gram), Mudga (Green gram), Chanaka (chick pea), Makushtaka (Moth bean).
- **Ksheera and Gorasayukta:** Milk should be boiled before its consumption; Ghee, Butter, Samskaarita takra.
- **Aharopayogi varga (Spices/Condiments):** Rasona (Garlic), Aardraka (Ginger), Haridra (Turmeric), Jeeraka (Cumin seeds), Ajamoda, Twak (Cinnamomum), Lavanga (Clove), Palandu (Onion), Hingu (Asfoetida).
- **Phala varga (Fruits):** Amra (Mango fruit), Draksha (Dry Grapes), Pakwa madhu-karkati (Papaya), Daadima (Pomegranate), Amalaki, Naaranga (Orange), Mosambi, Nimbu (lemon), Gajalimbe or Citrus lemon, Maatulunga (Citrus medica).
- **Krutanna varga:** Ashta guna manda, Panchakola peya, Kruta yoosha, Krushara.
- **Ksheera paka:** Lashuna ksheerapaka, Haridra ksheera paka.
- **Jala:** Ushna jala (Boiled water) Sukhoshna jala (Luke warm water), Shunthi jala (Ginger water), Jeeraka jala (Jeera water), Madhudaka (Water mixed with honey), Triphala rasa (Decoction of Triphala).
- **Satvika Ahara- Food for Mind:** *Satvika* means pure essence. This is the purest diet for a consciously spiritual and healthy life. It nourishes the body and maintains it in a peaceful state. According to Ayurveda, this is the best diet for physical strength, a good mind, good health, and longevity. And it calms and purifies the mind, enabling it to function at its maximum potential. A *satvika* diet thus leads to true health: a peaceful mind in control of a fit body, with a balanced flow of energy between them. A *Satvika* diet is excellent for those individuals who desire to live a quiet, peaceful and meditative life. *Satvika* foods include sprouted whole grains, fresh fruit, land and sea vegetables, pure fruit juices, nut and seed milk and cheese, legumes, nuts, seeds, sprouted seeds, honey and herbal teas. *Satvika* foods are those foods which do not agitate your stomach at all.

These Ayurvedic concepts can be applied to improve the immune system for the prevention and promotion of health, depending on the situation. Covid 19 Patients will have poor appetite, thus food must be tasty and tailored to the patients' likes and dislikes. By following Ashta ahara vidhi and including Nitya sevaneeya ahara in diet gives proper nutrition and immunity. In modern view also the diet consists primarily of fluids and tiny feeds given at

frequent intervals for the first two or three days. Supplementing with citrus fruits such as oranges, delicious limes, lemons, gooseberries, or ascorbic acid is essential. High-calorie, high-protein foods, as well as plenty of water, vitamins and minerals should be provided. To compensate for sweat losses and to provide appropriate volume of urine for waste excretion, a large amount of fluid must be consumed. The diet explained here under the headings of Vargas also fulfilling these requirements. The proper administration of these Ayurvedic principles will prevent the diseases and can adopt in Covid and post Covid condition also.

Anna Samrakshana - Food safety

The current methods are based on principles to prevent contamination, such as separating raw and cooked food, cooking food for an adequate amount of time at an appropriate temperature, storing food at an appropriate temperature, and using safe water and raw materials. Farm to fork, as defined by Rutgers, is "a food system in which food production, processing, distribution, and consumption are integrated to improve a given place's environmental, economic, social, and nutritional health." The ethics of food production are the fundamental driving reasons behind the farm to table or farm to fork movement, whichever you like to call it. The movement is built on four pillars: (1) food security, (2) proximity, (3) self-reliance, and (4) sustainability.^[10] Table is the chain's endpoint in the aforementioned idea. Typically, safety considerations focus on some requirements to ensure safety, security, and long-term viability, with a focus on food ingredients. Food safety is usually mentioned in Ayurvedic texts in the context of Annaraksha. This background describes how food is protected from various pollutants and hazardous substances. Especially in the meal supplied to the King, such pollutants should be avoided. In this situation, the concept of Gara visha comes into play. Contaminants and pesticide residues are now strong predisposing factors for such foods to become Gara visha. Annaraksha practises provide many ways for testing food (cooked or raw) for the presence of harmful compounds, with unique measurements for various food sources. These techniques resemble various testing (in vitro or in vivo) to assure safety, and when such tests show that the materials are free of toxins, they are pronounced safe (tested OK). The contaminants/toxins in substances that pass the OK test are not completely free of them; rather, they are tested to be within allowed levels.^[11]

CONCLUSION

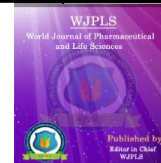
COVID 19, a new strain of virus causing mortality all over the world, can be avoided with proper nutrition, hygiene, and social isolation. The stage of the sickness in the community

must be determined, and the Roga bala and Rogi bala must be determined before medicine can be administered. “The doctor of the future will provide no medicine, but will interest his patient in the care of the human structure, in diet, and in the cause and prevention of disease,” remarked Thomas Edison in 1903. Nutrition and food could provide a strategy for improved health conditions in the existing pandemic condition.

REFERENCES

1. Rathi, B. 2013. A Short Study on Pharmaceutical Preparation & Clinical Evaluation of Phalavarti(Gudavarti) in Malavrodha (constipation). *Journal of Indian System of Medicine*, 1(1): 31–31.
2. Valdés-Ramos, R., Martínez-Carrillo, B. E., Aranda- González, I. I., Guadarrama, A. L., Pardo-Morales, R. V., Tlatempa, P., Jarillo-Luna, R. A. 2010. Diet, exercise and gut mucosal immunity. *Proceedings of the Nutrition Society*, 69(4): 644–650.
3. Sharma RK, Dash, Vd. Bhagwan: Agnivesa's Charaka Samhita, Vol. Sutrasthana. The Chowkhamba Sanskrit Series Office, K.. 37/99, GopalMandir Lane, Varanasi – 1. Su / 4/ 8. First Ed, 1976; 86.
4. Rawat, N., Roushan 2018. Ashtavidha Ahar Vidhi Visheshayatan an Explanation of Healthy and Balanced Diet- A Review R. *Int J Ayu Pharm Chem*, 9(2): 51–57.
5. Swaminathan. Food and Nutrition. Bangalore printing and Publishing Co. Ltd, reprint ed, 2004; 117.
6. Vd. Harish Chandra Singh Kushwaha, Charaka Samhita, Sutra Sthana 27/231, Chaukhambha Orientalia, Vranasi, 2011; Varanasi; p442.
7. Swaminathan. Food and Nutrition. Bangalore printing and Publishing Co. Ltd, reprint ed, 2004; 350.
8. Vd. Yadavji Trikamjo (ed.). Charaka Samhita of Agnivesha, Ayurveda Deepika Commentary of Cakrapanidatta, Sutra Sthana, Sneha Adhyaya, Verse no. 13-14, Reprint edition, Chaukhambha Orientalioa, Varanasi, 2007; 82.
9. Swaminathan. Food and Nutrition. Bangalore printing and Publishing Co. Ltd, reprint ed, 2004; 350.
10. Rutgers, New Jersey Agricultural Experiment Station, From Farm to Fork accessed from <https://njaes.rutgers.edu/food-nutrition-health/farm-tofork.php> [last accessed on 05.02.2019].

11. Sharma, R.K, Bhagwan Dash (Tran). Caraka samhitha of Agnivesa, Sootra Sthana; Chapter 2, verse 17. Varanasi:Chowkhamba Sanskrit Series Office, ISBN: 81- 7080-012-9, Reprint 2004.



A BOON TO HEALTHY LIVING THROUGH “SHIRA SRAVANA PADESHU ABYANGA”

Rekha B. V.¹, Rini P.^{2*}, Venkatakrishna K. V.³ and Praveen Kumar D Chotalag⁴

¹Professor & Guide, ²P. G. Scholar, ³Professor & HOD, ⁴Assistant Professor, Department of P. G. Studies in Swasthavritta, Government Ayurveda Medical College, Mysuru, Karnataka.

Corresponding Author: Rini P.

P. G. Scholar, Department of P. G. Studies in Swasthavritta, Government Ayurveda Medical College, Mysuru, Karnataka.

Article Received on 29/12/2020

Article Revised on 18/01/2021

Article Accepted on 07/02/2021

ABSTRACT

Introduction: Dinacharya is a unique concept of *Ayurveda* where a single procedure like *Abhyanga*, a kind of *Bahyasneha* helps to prevent multiple ailments. In the present scenario of busy lifestyle and hectic workload people find it difficult to practice their daily regimens. The regular application of oil on head, ears & foot are especially emphasized in *Ayurvedic* treatises. *Shira* is known as *uttamanga* which is the seat of *indriya*. *Sravana* is the *vata stana* & *pada*, the *karmendriya* used for *gamana* and is the body part which is continuously exposed with wind, dust etc hence *rookshata* of this body part is always higher than the others. Considering all these aspects oiling is needed to achieve *snigdghata* for the maintainance of healthy life. **Methods:** Literature Review **Discussion:** The study tries to validate the statement “*Shira Sravana Padeshu Tham Viseshena Seelayet*” with modern interpretation.

KEYWORDS: *Dinacharya *Viseshena Abhyanga *Health Promotion*

1. INTRODUCTION

The maintenance of health in *Ayurveda* is by following the *Dinacharya*, *Ritucharya*, *Nisacharya* etc.^[1] One among the major component of *Dinacharya* as well as *Ritucharya* is the concept of *Abhyanga*. *Abhyanga* as a daily regimen results in very important benefits like *Jaraapaha*(delays ageing), *Shramahara*(relives fatigue), *Drishti prasadakara*(imparts good vision), *Ayupushtikara* (prolonging strength and age), *Swapnakara*(imparts good sleep), *Sutwak*(good skin), *Druda twak*(strong skin) and *Vata shamaka*(mitigates vata).^[2] *Abhyanga* has been highlighted with its wide spectrum of usage for both preventive and curative purpose. The importance of *Abhyanga* has been shown by the way of different metaphoric illustration as a pitcher or dry leather or an axis of a wheel become strong and resistant to a wear and tear by application of oil.^[3] Similarly the human body become strong, becomes unsuceptible to the disease of vata, resistant to exhaustion and exertion. The body is compared to the tree. If the roots of trees are given water regularly, then it lives for a long, in the same way by *abhyanga* the person's *dhatu* becomes healthy.^[4] In the present scenario of busy lifestyle and hectic workload people find it difficult to practice their daily regimens. *Acharyas* have specifically mentioned that *Abhyanga* should be done at least to the head, ears and foot

regularly to maintain health.

2. MATERIALS AND METHODS

Information were collected and documented from relevant *Ayurvedic* and Modern literatures, various websites & online published research articles.

3. REVIEW OF LITERATURE

3.1. Viseshena Abhyanga

“*Shira Sravana Padeshu Tham Viseshena Seelayet*” // A.H.Su 2/8

Abhyanga, a kind of *Bahyasneha* is one among major component of *Dinacharya* procedure. *Acharyas* has specifically mentioned that it should be applied at least on Head, feet and ear daily for the maintenance of health.^[5]

Table 1: Benefits of Shiroabhyanga.^[6,7,8]

Promotive benefits	Preventive benefits
<i>Shira-kapala bala</i> (Enhances strength of scalp)	<i>Shirashula</i> (Headache)
<i>Drudamoola - Dirgha krishna kesha</i> (Deep-rooted long black hair)	<i>Khalitya</i> (Hair fall)
<i>Sutwak aanana</i> (Enhances colour & complexion of skin)	<i>Palitya</i> (Baldness)
<i>Drudamoola</i> (Increases strength of hair roots)	<i>Na kesah prapatanti</i> (No hair fall)
<i>Nidralabha</i> (proper sleep)	
<i>Indriyaprasada</i> (clarity of sense organs)	
<i>Sukha</i> (happiness)	

Table 2: Benefits of Karnabhyanga^[10,11,12,13]

Promotive benefits	Preventive benefits
<i>Na ucha shruti</i> (Increases ability to withstand loud voice)	<i>Na karnaroga</i> (No ear disease due to vata)
	<i>Na Manyu-Hanu sangraha</i> (No rigidity in the back of neck and jaw)
	<i>Na Shirashula</i> (No headache)
	<i>Na Karnashula</i> (No earache)
	<i>Na Badhira</i> (No deafness)

Table 3: Benefits of Padabhyanga^[14,15,16,17]

Promotive benefits	Preventive benefits
Increases the <i>sukumarata, bala</i> and <i>sthairya</i> of <i>pada</i> (strength and stability of foot)	Prevents <i>pada kharatwa</i> (roughness of feet)
<i>Drushti prasada</i> (clarity of vision)	Prevents <i>pada stabdhata</i> (stiffness of feet)
<i>Nidrakara</i> (imparts sound sleep)	Prevents <i>pada roukshya</i> (dryness of feet)
<i>Vata samana</i> (subsides vata)	Prevents <i>pada shrama</i> (tiredness of feet)
	Prevents <i>pada supti</i> (numbness of feet)
	Prevents pain in <i>pada</i> due to <i>grudrasa</i> (sciatica)
	Prevents <i>pada sphutana</i> (cracking of feet)
	Prevents <i>sira & snayu sankocha</i>

4. DISCUSSION

4.1. Mode of action of Abhyanga

Dalhana has described Oil used in *Abhyanga* reaches different *dhatu*s if applied for the stipulated time. This clearly indicates absorption of drugs through skin. The potency of oil applied to the skin, enters the various *dhatu*s through *Siramukha* (opening of the veins), *Romakupa* (root of the hairs), *Dhamani* (arteries) and nourishes the body, also provides strength. *Dalhana* also mentions that when *Snehana* of drugs reaches to the particular *Dhatu* then it subsides or cures the diseases of that particular *Dhatu*.^[9] *Charaka* has mentioned that *Vayu* dominates in the *Sparshanendriya* and its *Adhishtana* is *Twacha* i.e. skin, so one should follow it regularly.¹⁰ *Indriyas* are in close contact of mind so when *Indriyas* remain healthy then mind automatically remains healthy. In this way *Abhyanga* keeps body and mind healthy.

4.2. Daily Abhyanga to Shira, Sravana & Pada

Shira is known as *Uttamanga* which is the seat of *Indriya*. *Srotra* is the *Vata stana*¹¹ & *Pada* is one among the *Panchakarmendriya* and plays a vital role in loco motor system. Considering all these aspects regular oiling is needed to achieve *Snigdhatva* for the

maintenance of health.

4.3. Importance of Shiroabhyanga

Shira or head is known as *Uttamanga* which is the seat of *Indriyas*^[12] and one among *Trimarma*. Therefore all the functions of *Jnanendriya* and *Karmendriya* are controlled by the *Shira*. As *prana* resides in *shira* it is important to protect. The proper oilation of *shira* daily prevents the conditions like *Shirashula*, *Khalitya*, *Palitya* etc. If a *Vata prakruti* person use *Vatahara* oil daily can prevent *Vataja Shirashula*. Similarly in *Khalitya*, *Palitya* and premature greying etc one can use appropriate oil daily to prevent these conditions. It will also give promotive benefits like enhances the strength of scalp, hair growth, colour and complexion of skin, increases strength of hair roots and imparts sound sleep.

4.4. Importance of karnabhyanga/karnapoorana

Shrotra/Karna is the *sthana* of *vata*. When ear skin get massaged with oil its active ingredients gets absorbed by *Romakupa* and through *Swedawahi Srotas* it enters in circulation. The daily oilation to *karna* will prevent *Hanushula*, *Manyashula*, *Shirashula*. When we analyze these sites, these sites are mainly associated with trigeminal nerve.

Trigeminal nerve has three different divisions such as 1) Ophthalmic division which conveys sensory information from the scalp, forehead, upper parts of sinuses, cornea of eye, bridge of nose etc. 2) Maxillary division which transmits lower eyelid and associated mucous membrane, middle part of sinuses, cheeks, upper lip, root of mouth etc. 3) Mandibular division which communicates sensory information from outer part of the ear, lower part of mouth, front and middle part of tongue, teeth of lower jaw, lower lip, chin etc.^[13] The daily application of oil to this area will strengthen the trigeminal nerve by which can prevent the pain on these sites & also prevents *Karnashula*, *Badhirya* etc.

4.5. Importance of Padabhyanga

Pada is one among the *Panchakarmendriya* and plays a vital role in loco motor system which is continuously exposed with wind, dust etc, hence *Rookshata* of this part is always higher than the other body parts. It always have fear of aggravation of *Vatadosha* and susceptible for injuries. *Padabhyanga* stimulates the *Marma* (vital points) of the sole region and restores *Prana*. The *Padabhyanga* increases the local blood circulation which prevents *Supti* (numbness), *Sankocha*, *Stambha* (Stiffness). *Kharatwa/ Rukshata* (dryness/ cracks) are also tackled by the *Snigdha guna* of *sneha*. Along with these local action it has systemic action in *Anidra* (insomnia), also acts as *Chakshushya* and has effect in *Gridhrasi*.

In *Nadi vigyana*, *Nadi darpana* it has been quoted that there are 105 nadi in head among which 2 are related to eyes.

1. *Gandhari*- Surrounds *Ida nadi*, which extends from *pada* and ends in left eye.
2. *Hastijihwa*- Surrounds *Pingala nadi*, which extends from *pada* and ends in right eye.^[14]

According to Vagbhata, there are two *siras* in each *padamadhya pradesha* (which is in middle part of sole), which are connected to the head. Because of continuous standing, walking or excessive pressure on the soles of feet, these *siras* gets affected, as a result of which eyesight of a person gets reduced. If at the roots of *siras* (i.e. in the sole of the feet) *Padabhyanga* is done regularly can prevent eye diseases. It promotes strength for walking and running and gives sturdiness to the limbs.^[15]

Gridhrasi is a condition where pain starts from low back which radiates to buttocks, thigh, and leg up to foot, which simulates with the sciatica- pain along with sciatic nerve course. Sciatic nerve originates in the lowback from lumbar spine, passes underneath the gluteal muscles, runs down the leg and ends in the heel of the foot. There is a sciatic reflex area on the feet which is a band that runs horizontally across the middle of the heel where the sciatic nerve ends. *Padabhyanga* done at the sciatic reflex area may help in preventing sciatica and also pain management in sciatica.^[16]

4.8. Modern view

4.8.1. Physiological effects of oil massage

The physiological effect of massage in general can be divided in to two.

1. Relaxation effect
2. Stimulation effect.

Relaxation effect involves hypothalamic reactions associated with the decline of sympathetic system activity and an increase in parasympathetic system activity. There are two types of stimulation effects; one is reflexive and the other is mechanical. The reflex effect is refreshing and relaxing due to delivering stimulation at the cutaneous peripheral nerve to the cerebrum. Peripheral cutaneous stimulation promotes circulation through stimulation of the parasympathetic nerve, relaxation of muscles and extension of capillary vessels. Ultimately, massage reduces sympathetic nerve activity while increasing parasympathetic nerve activity.^[17]

4.8.2. Oil massage to head

During massage, different type of mechanical sensation is given to the skin like pressure, rubbing, touches etc. So these sensory impulses are received by respective receptors present on the surface of skin and carried to the hypothalamus in the brain.^[18] After reaching hypothalamus it provides soothing effect and stimulates para sympathetic nervous system. Parasympathetic nervous system decreases the activity of sympathetic nervous system. So decreases releases of stress hormones like cortisol and adrenalin. Due to this, heart rate decreases, blood pressure decreases, blood glucose level returns to normal and blood vessels get dilate. All these factors provide relaxation to the mind. When mind gets relax, the ascending reticular activating system which is responsible for wakefulness stops functioning and the sleep centers in the brain get activated. One of the sleep centers, Raphe nucleus starts releasing serotonin from nerve fibers arising from its nucleus, which is responsible for Non REM (Non Rapid Eye Movement) sleep. This is a deep and rest full form of sleep. Another centre Locus Ceruleus of Pons also get activated and releases Nor-adrenalin from nerve fibers arising from its nucleus.^[19] Nor-adrenalin is responsible for REM (rapid eye movement) sleep.

4.8.3. Oil massage to ear

When external ear gets massaged, the vagus nerve get stimulated, the upper two third and lower one-third of lateral surface of external ear is supplied by auricular nerve which is a branch of vagus nerve and these afferent sensory impulses are carried by afferent sensory nerve pathway to hypothalamus via peripheral nerve and spinal cord where it activates parasympathetic nervous system. Parasympathetic nervous system is responsible for relieving stress by lowering blood pressure, lowering blood glucose level and decreasing heart rate. After brain gets relaxed ascending reticular activating system get suppressed and sleep centers get stimulated. Sleep centers releases serotonin and noradrenalin which are

responsible for inducing non-REM and REM sleep respectively.^[20]

4.8.4. Oil massage to foot

When foot get massaged locally, lymphatic drainage get increases and the lymph contains amino acid like tryptophan which increases. As level of tryptophan increases in plasma, it accumulates and stimulates pineal gland. Secretion of melatonin and serotonin increases. Melatonin induces the sedation and pleasant feeling and Serotonin induces sleep and also helps to control mood of person.^[21]

The science of reflexology states that the sole of feet has connections with various organs of the body. Hence proper foot massage at respective site on the foot with specific oils prevents and cures diseases. According to the science, various organs like heart, lungs, kidney, brain, intestines all can be stimulated by feet massage. Above all a massage helps a person to have a sound sleep at night. It is based on the principle that the body can be divided into 10 vertical zones, each corresponding to an area of the foot so that the feet are in effect a map of the body. A sensitive area of the foot indicates a problem in the corresponding organ of the body and by working on the appropriate painful spot, the problem can be solved.^[22]

5. CONCLUSION

In *Ayurveda* much importance is given to personal hygiene which, when followed will definitely prevent many of today's lifestyle problems. Everyone who wants to live a long and healthy life is expected to follow the rules of conduct which are given in *Dinacharya* and *Ritucharya upakrama* in *Ayurveda*. Acharyas have specifically mentioned *Shira*, *Shravana* & *Pada* as sites which need to be oiled on a daily basis. By understanding the physiological & anatomical specialties of this site on the basis of *Panchabhuta* & *Doshic* basis, we should consider it as a protocol to be followed on every part of the body depending up on the *Prakruti*, *Desa*, *kala* etc.

REFERENCES

1. Bhavamishra, Bhavaprakasha with vidyodini tika, Bharmashankara misra, Chowkhamba Sanskrit series, Varanasi, 2003, Purva khanda 5/73-74, p. 116.
2. Kaviraj Atridev Gupta, Ashtanga Hridaya of Vagbhat, Sutrasthan, chapter 2/9, verse no. 1, Chaukhambha Prakashana, Varanasi, Edition- 2007.
3. Charaka Samhita of Agnivesha with Vidyotini Hindi Commentary by Dr.Kashinath Shastri and Dr.Gorakhnath Chaturvedi, Part I, Chaukhambha Bharati Academy, 18th Edition, Varanasi, 128.
4. Susrutasamhita of susruta edited by Dr.Kaviraj Ambikadutta Shasri, Chaukhambha Sanskrit Sansthan, reprint edition Varanasi, 106.
5. Kaviraj Atridev Gupta, Ashtanga Hridaya of Vagbhat, Sutrasthan, chapter 2/9, verse no. 1, Chaukhambha Prakashana, Varanasi, Edition, 2007.
6. Agnivesha, Charaka Samhita, edited by Harish Kushwaha Chaukhamba Orientalia Prakashana, Varanasi, 2011. Sutrasthan, 5/81, p. 101.
7. Maharshi Sushruta, Sushrutasamhita, Nibandha sangraha Samsrutatika by Dalhana, Nyayachandrika samskrutatika by Gayadasa, Edited by Yadavji Trikamji acharya, Chikitsastana, anagathabadha pratishedam adyaya, 24/25, Choukhamba samskrutasamsthana, Varanasi, 2012; P 488.
8. Bhavamishra, Bhavaprakasha with vidyodini tika, Bharmashankara misra, Chowkhamba Sanskrit series, Varanasi, 2003, Purva khanda 5/73-74, p.
9. Murthy Srikantha R K - English Translation of *Ashtanga Samgraha*, chaukhamba Orientalia, Varanasi, 9th edition, Reprint: 2015 *Sutra Sthana* chapter 3/29.
10. Agnivesha, Charaka Samhita, edited by Harish Kushwaha Chaukhamba Orientalia Prakashana, Varanasi, 2011. Sutrasthan, 5/81, p. 101.
11. Maharshi Sushruta, Sushrutasamhita, Nibandha sangraha Samsrutatika by Dalhana, Nyayachandrika samskrutatika by Gayadasa, Edited by Yadavji Trikamji acharya, Chikitsastana, anagathabadha pratishedam adyaya, 24/29, Choukhamba samskrutasamsthana, Varanasi, 2012; P 488.
12. Murthy Srikantha R K - English Translation of *Ashtanga Samgraha*, chaukhamba Orientalia, Varanasi, 9th edition, Reprint: 2015 *Sutra Sthana* chapter 3/30.
13. Yogaratnakara, with vidyotini hindi commentary, edited by Bhisagratna Brahmarshankar shastri, purvardha, Abhyangadividhi, 54, Varanasi : Chaukhamba Prakashana, reprint, 2012; 573: 60.
14. Agnivesha, Charaka Samhita, edited by Harish Kushwaha Chaukhamba Orientalia Prakashana, Varanasi, 2011. Sutrasthan, 5/91-92.
15. Maharshi Sushruta, Sushrutasamhita, Nibandha sangraha Samsrutatika by Dalhana, Nyayachandrika samskrutatika by Gayadasa, Edited by Yadavji Trikamji acharya, Chikitsastana, anagathabadha pratishedam adyaya, 24/70, Choukhamba samskrutasamsthana, Varanasi, 2012; 488.
16. Murthy Srikantha R K - English Translation of *Ashtanga Samgraha*, chaukhamba Orientalia, Varanasi, 9th edition, Reprint: 2015 *Sutra Sthana* chapter 3/31.
17. Vd.Lakshmipati shastri, Yogaratnakara, with vidyotini hindi commentary, edited by Bhisagratna Brahmarshankar shastri, purvardha, Abhyangadividhi, 54, Varanasi : Chaukhamba Prakashana, reprint, 2012; 573, pg-60.
18. Maharshi Sushruta, Sushrutasamhita, Nibandha sangraha Samsrutatika by Dalhana, Nyayachandrika samskrutatika by Gayadasa, Edited by Yadavji Trikamji acharya, Chikitsastana, anagathabadha pratishedam adyaya, 24/33, Choukhamba samskrutasamsthana, Varanasi, 2012; P 488.
19. Agnivesha, Charaka Samhita, edited by Harish Kushwaha Chaukhamba Orientalia Prakashana,

- Varanasi, 2011. Sutrasthana, 5/81, p. 101.
20. Kaviraj Atridev Gupta, Ashtanga Hridaya of Vagbhat, Sutrasthan, chapter 12, verse no. 1, Chaukhambha Prakashana, Varanasi, Edition- 2007.
 21. Acharya Priyavrata Sharma, Charaka Samhita with Chakrapanidatta Vidyotini Hindi Commentary, Sutrasthan, chapter 18, verse no. 12, Chaukhambha Sanskrit Sansthan, Varanasi, Edition, 2011.
 22. Huff T, Daly DT. Neuroanatomy, Cranial Nerve 5 (Trigeminal) [Updated 2020 Nov 19]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK482283/>
 23. Nadi darpana, reprint edition Trivandrum, prabhu publications, 1994; 26.
 24. Vagbhata, Astanga Hrudaya with commentaries of Sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri, edited by Pt. Bhishagacharya Harishastri Paradakara Vaidya, Uttara sthana-16/66, Chaukhamba Krishnadas Academy; Varanasi, Reprinted, 2006; 834.
 25. www.tampareflexology.com – Reflexology for sciatic nerve.
 26. In-Hong Kim, Tae-Young Kim, Young-Wan Ko- The effect of a scalp massage on stress hormone, blood pressure, and heart rate of healthy female-J Phys The Sci, 2016 Oct; 28(10): 2703–2707. Published online 2016 Oct 28. doi: 10.1589/jpts.28.2703.
 27. Essentials of Medical Physiology, K Sembulingum, Jaypee Brothers Medical Publishers, New Delhi, Edition-2007; P.N.835-838, 588.
 28. Text book of Medical Physiology- C. Guyton AC., WB Saunders Company, USA, Ninth Edition, 1996; 761, 763.
 29. Sneha Borkar*, Prachi Dalvi A comparative study of Shiroabhyang and Karnabhyang in the management of Nidranash (primary insomnia)- Research Article ISSN 2320-4818 JSIR, 2016; 5(5): 168-173 © 2016, All rights reserved Received: 14-09-2016 Accepted: 13-10-2016.
 30. Pulak kantikar, Mechanism of panchakarma and its module of investigation, Delhi, Chaukhamba Sanskrit Pratishthan, Print, 2013; 143: 30-32.
 31. Nurul Haswani Embong, Yee Chang Soh Long Chiau Ming;,-Revisiting reflexology: Concept, evidence, current practice, and practitioner training, J Tradit Complement Med.PMCID: PMC4624523 2015 Oct; 5(4): 197–206.Published online 2015 Sep 28. doi

**ACTION OF AVAPEEDAKA SNEHA ON MUTRA VEGADHARANA
JANYA LAKSHANAS- A REVIEW**Rini P¹,Rekha B.V²,Venkatakrishna K.V³¹PG scholar, ²Professor and Guide, ³Professor and H.O.D, Department of PG Studies in Swasthavritta, Government Ayurveda Medical College, Mysuru, Karnataka**ABSTRACT**

Introduction: The homeostasis of the human body is maintained by all the metabolic activities happening inside & all the toxic products of these are mainly excreted through *Mutra(Urine)*, *Purisha(Feces)* & *Sweda(Sweat)*. Among which *Mutra* is very much important because it has got additional functions like regulation of blood pressure etc. The effect of suppression of urine is found to be mainly painful conditions & this pain is caused mainly because of nervous irritation & stretching of muscles. *Avapeedaka Sneha* (A special type of oral administration of lipid) which is given as *Pragbhakta(Before food)* & *Jeernantika* (After digestion of food) is found effective in such condition. This sneha given less importance in regular practice & different methods of practice are adopted .So there is a need of literature review in depth. **Aims & objectives:** Reviewing the scattered information regarding *Avapeedaka sneha* and its applicability in symptoms of suppression of urine. **Methods:** literature review **Discussion:** The study tries to reveal the effect of *Avapeedaka Sneha* in *Mutra Vegadharana* (suppression of urine) symptoms. **Conclusion:** *Mutravegadharana* is common now a day due to busy lifestyle and one can adopt *Avapeedaka Snehapana* as both preventive and curative aspect.

Key words: *Avapeedaka, Abhyantara Sneha, Mutra vegadharana vikara*

INTRODUCTION: *Avapeedaka sneha* is a special pattern of oral administration of *sneha* mainly indicated in *Mutravegadharanajanya vikara*¹, *Nabhigata vata*² & *Raktaja arsa*³. The *Sneha(Lipid)* is administered in 2 *Kala* ie, *Pragbhakta(Before food)* & *Jeernantika* (After digestion of food) in *Hrasva matra(Small dose)* & *Uttamamatra(High dose)* respectively. The word *Avapeedaka* implies either *Peedana(Squeeze)* of *dosha* or *Peedana* of *ahara* by *Sneha* .⁴ *Ayurveda* has given more importance to the maintenance of healthy status as well as giving the treatment protocol in a disease conditions. The maintenance of health of a person depends on control over his mental & physical activities. *Vegas* are the urges generated naturally by the body and it is important to respond to these in time & not to suppress

them.⁵ One has to be in a mediocre level in his mental functions like *Shoka(Grief)*, *Krodha(Anger)*, *Raga(Desire)*, *Moha* (Delusion) etc as well as his physical activities to maintain the normal physiology of body. *Vegodheerana (Forceful expulsion of natural urges)* & *Vegadharana(Suppression of natural urges)* are the 2 main causative factors for the occurrence of diseases.⁶ Suppression of *Vegas* causes the vitiation of *Vata dosha*, which further interacts with other *Doshas* to develop diseases, if suppressed very often it will cause long standing consequences. *Adharaneeya vegas(Non suppressible urges)* are mainly fourteen in number, among which *Mutra Vega* (Suppression of urine) is considered as important *Vegas* as *Mutra* is considered as *Aharamala (Waste from food)* and having greater role in elimination of toxic/waste

byproducts from the body and it needs a place and circumstance to void as feces. The effect of suppression of urine is found to be mainly painful conditions & this pain is caused mainly because of nervous irritation & stretching of muscles.

AIM AND OBJECTIVES

Review the information regarding *Avapeedaka snehapana* and its applicability in *Mutra vegadharanjanya vikaras*.

MATERIALS & METHODS

Various *Ayurvedic* classics like *Charaka Samhita*, *Ashtanga Hridaya*, *Ashtanga Samgraha*, *Susruta Samhita*, Modern Texts, Articles regarding the different methods of administration of *Avapeedaka Snehapana*, action of lipids on neurons were referred and analyzed.

REVIEW OF LITERATURE

Human body is the most evolved and sophisticated system which has its own purificatory mechanism to eliminate the toxic waste substances produced inside it, thus maintaining homeostasis. The *Vegas* (natural urges) described in *Ayurveda* is an excellent example of this. Now-a-days due to busy life and heavy work load, people often suppress the nature's call. If it is suppressed regularly it will produce long standing consequences. *Mutra vegadharana* is most important among *Adharaneeya Vegas* because it has got ad-

ditional functions like regulation of blood pressure, bio purification etc. The homeostasis of the human body is maintained by all the metabolic activities happening inside & all the toxic products of these are mainly excreted through *Mutra*, *Purisha* & *Sweda*.

Anatomy & physiology of control of urination

The urethral sphincters are the two muscles used to control the exit of urine in the urinary bladder through urethra. The two muscles are external urethral sphincter & internal urethral sphincter.⁷ Voiding urine begins with voluntary relaxation of the external sphincter muscles of bladder. Parasympathetic impulses induce contraction of bladder and relaxation of internal sphincter⁸. As the bladder fills, the Micturition contraction begins to appear. These are as a result of Stretch reflex initiated by sensory stretch receptors in the bladder wall especially by the receptors in the posterior urethra when this area begins to fill with urine at the higher bladder pressures. Sensory signals from the bladder stretch receptors are conducted to the sacral segment of the cord through the pelvic nerves and then reflexively back again to the bladder through the parasympathetic nerve fibers by way of this same nerves.⁹

4.2. Table 1- Role of Apana & Vyana Vata in Mutra Vegadharana

<i>Apana Vayu</i>	Charaka Samhita¹⁰	Sushruta Samhita¹¹	Ashtanga Hrudaya¹²	Ashtanga Samgraha¹³
Karma (Function)	Ejaculation, Micturition, Defecation, Expulsion of menstrual blood and fetus.	Elimination of <i>Samirana</i> (flatus), <i>Sakrit</i> (faeces), <i>Mutra</i> (urine), <i>Sukra</i> (semen), <i>Garbha</i> (fetus), <i>Artava</i>	Expulsion of <i>Sukra</i> (semen), <i>Artava</i> (menstrual blood), <i>Sakrit</i> (faeces), <i>Mutra</i> (urine), and <i>Garbha</i> (the product of con-	Elimination of faeces, Urine, Semen, Menstrual fluid and foetus

		(menstrual fluid)	ception that is fetus and placenta)	
<i>Vyana Vayu</i>	Charaka Samhita¹⁴	Sushruta Samhita¹⁵	Ashtanga Hrudaya¹⁶	Ashtanga Samgraha¹⁷
<i>Karma (Function)</i>	Responsible for gait, flexion, extension, twinkling etc	Responsible for sweating, blood circulation, and five type of movement like expansion, contraction upward, downward and oblique movements along with blinking and opening of eyelids	All motor functions of the body such as <i>Mahajava</i> (rapid movement), <i>Gati</i> (movement), <i>Avakshepa</i> (flexion), <i>Utkshepa</i> (extension), <i>Nimesha</i> (closure of eyelid/ being not responsive to movement), <i>Unmesha</i> (opening eyelids/ staying responsive).	Responsible for movement, expansion, contraction, upward movement, downward movement, opening and closing of eyelids, yawning, feeling the tastes of food, clearing of the channels, causing the flow of sweat and blood, bringing the male reproductive tissue into the uterus, separating the nutrient portion and waste portion of the food (after its digestion) and supplying nourishment to all the <i>Dhatus</i>

The importance of normal functioning of *Apana & Vyana vata* can be understood by analyzing this table. *Mutra vegarodha* causes *Vata prakopa* and lead to group of diseases named as *Mutra vegarodha janya vikaras*, the *Vata kopa* here is understood to be due to dysfunction of *Apana Vayu* and *Vyana Vayu*¹⁸. Due to *Vega dharana* there is strong possibility of dysfunction of both *Apana* and *Vyana vayu* together. It will lead to various symptoms in our body & may lead to major diseases by long term suppression.

Avapeedaka snehapana different methods of administration

As the exact reference of administration of *Avapeedaka sneha* is not mentioned

in classics. It can be given in these 4 methods in day to day practice;

Method 1: *Hraswa matra sneha* to be administered by early evening and food is administered after a while. The next morning after attaining the *Jeernahara lakshanas*, *Uttama matra* is calculated. During *Sooryodayakala* (sunrise) and before the feeling of hunger *Uttama matra sneha* is administered. The diets and regimens to be followed during and after the *Snehana* are advised during the period of *Snehapana*. Rice gruel can be consumed whenever the patient feels hunger till the procedure ends.

Method 2: The *Hraswa matra sneha* to be administered during sunrise and *Satmya ahara* (compatible food, preferably rice

gruel) is given after 30 to 45 minutes. The time of administration is significant as it is the ideal time for *Uthkleshana* (secretory). *Uttama matra* to be calculate and administered after attaining the proper digestion of food. The diets and regimens to be follow during this period. Rice gruel can be consumed when the patient feels hunger.

Method 3: In *Avarasatwa* (minimal mental capacity) or *Alpabala* (minimal physical strength) persons, if the condition is not severe we can administer *Hruswa matra* in *Pragbhakta*, that is, after *Sooryodaya kala*, *Snehapana* is administered. Rice gruel is advised as food when the patient feels hunger. This *Prayoga* (method) can be continued every day till *Vyadhi samana*.

Method 4: *Uttama matra* can be administered during sunrise if you know the *Agnibala* (digestive strength) of the patient and is advised to sip hot water frequently. When the person is hungry, rice gruel is given as food. This is repeated till he or she attains *Samyak snigdha lakshana*.¹⁹

Oushadhas Sevana kala of Avapeedaka Sneha

The *Oushadha sevanakala* for vitiated *Apana vayu*, *vayu* get lodged in anal region, diseases of lower part of the body and for the strengthening the lower part is *Pragbhakta*.²⁰ The *oushadhakala* for *Avapeedaka sneha* is *Pragbhakta* and *Jeernantika*. In *Mutravegadharana janyavikaras vata dosha* especially *Apana vata* get vitiated. Here we can see that *Pragbhakta oushadhasevana of Hraswa matra sneha* will act up on vitiated *Apana vayu* condition and *Uttama matra sneha* to be given after digestion of previous food.

Why Ghruta in Avapeedaka?

In the context of *Avapeedaka snehapana*, *Acharyas* have not mentioned which *Sneha* is to be given. But commentators have

opined *Ghruta* as the better choice to reduce *Vatakopa* (aggravation of vata) rather than *Taila*, even though *Taila* (sesame oil) is the best *Vata shamaka* (pacifies vata) *Sneha dravya*. *Taila* is not advisable in this condition because of its *Baddhavitt* and *Alpamutra Swabava* (property to obstruct feces and scanty urination)²¹. Hence, *Ghruta* is the best *Sneha* of choice used in this pattern of internal administration of *Sneha*.

Lipid action on Neuronal Injuries

Lipids play a pivotal role in normal physiological function of the neurons and structural development of the brain. The lipid composition of the brain highly governs mood, perception and emotional behavior of the subject. The lipids have variety of functions like formation of lipid bilayers that form the structure and provide necessary channel for protein function, as an energy reservoir (for example tri- glycerides) and serve as precursors for various secondary messengers such as arachidonic acid (ArAc), docosahexaenoic acid (DHA), ceramide, 1,2-diacylglycerol (DAG), phosphatidic acid and lyso- phosphatidic acid. The normal functions of these lipids govern the overall normal physiology of the brain.²² Any abnormal deviation from the normal function of brain, either due to any mechanical injury or due to pathological changes in neurons, leads to different types of neurodegenerative diseases, mental disorders, stroke and CNS traumas. The crucial role of lipids in tissue physiology and cell signaling is demonstrated by the many neurological disorders. Both, neurological disorders and neurodegenerative diseases involve unregulated lipid metabolism²³.

DISCUSSION

As we go through in to the symptoms of *Mutra vegadharana* mentioned in classics we can classify it under 3 major headings.

1. Painful conditions

a) Neurological origin

b) Muscular origin

2. Distended Heavy Bladder

3. Urinary Calculus

5.1. Table.2- *Mutra vegadharana janya lakshana*^{24,25,26}

1.Painful Conditions		2.Aanadha basti(Distended Heavy Bladder)	3.Asmari (Urinary Calculus)
Neurological Origin	Muscular Origin		
Shirashula (Headache)	Basti Shula (Pain in Inguinal Region)		
Vinama (Forward Bending)	Mehana Shula (Pain in Pelvis)		
Angabhanga (Bodyache)			
Mushka Shula(Scrotal Pain)			
Guda Shula (Anorectal Pain)			
Nabhi Shula (Pain in Umbilical Region)			

Pragbhaktha is one among the 10 *Oushadhakala* (ideal time for the administration of medicine)²⁷. It is also named as *Annadou*, which means the medicines administered before food, generally indicated in the *Apana Vata Vaigunya*²⁸. Even though there is an opinion of administering *Avapeedaka Snehapana* in 2 ways, ie, *Uttama matra* and *Hrusva matra*, the *Peedana* of *dosha* and *ahara* takes place in both. In method 3, the quantity of *sneha* administered is *hrusva matra* and looks similar to *Samana snehapana*, and in method 4, *Uttama matra* is administered and it also behaves as *Shamana snehapana*. The term *Yojanadwayam* is mentioned in the context of *Avapeedaka Snehapana* and commentators gives an explanation to this term as 2 patterns of *Snehapana* either administering the *Hrusva matra* and *Uttama matra* together or separately. But *Avapeedaka* is called so only when both *Uttama matra* and *Hrusva*

matra are administered together as in methods 1 and 2.(two)

The *vilomagati* (movement in wrong directions) of *Apana Vata* takes place and acts as a causative factor for the *Mutravegdharajanya Vikaras*. Correcting the path of *Apana Vata* is done by the administration of *sneha*, that is, *peedana* (Squeezing) of *dosha* by *Sneha*. *Mutravegarodha janyavikara* includes *Angabhanga* (body pain), *Asmari* (urinary calculi), *Vastivedana* (pain in urinary bladder), *Medravedana* (pain in penis), *vankshanavedana* (pain in the inguinal region). In all these conditions, diuresis is the line of treatment and frequent micturition is important as it pacifies the condition.²⁹

Pragbhakta oushadha acts up on the *Apana Vata* which is vitiated due to the suppression of urine & release the symptoms in the lower abdomen or pelvic region. *Jeernantika oushadha* when given after the digestion of previous food may

acts up on the Vyana Vayu which is *Sarva dehachari* & the medicine pacifies the condition which are present in other parts of body like *Angabhanga, Shirasoola* etc. This site specificity is provided by the time of administration of medicine. The added effects of *Ghrita*, whether plain *Ghrita* or medicated *Ghrita* can be prescribed as per the *Yukti* of the physician shall bring positive effects on the condition.

The consideration of *Ghrita* over *Taila* in a *vata* predominant condition is very important topic of discussion even though it is mentioned *Taila* has got other effect when given internally. But *Vasa & Majja* can also be considered for the same. The probable reason for considering *Ghrita* over *vasa & majja* can be the need of good digestive power to digest *Vasa & Majja* & the special property of “*Samskarasya Anuvartanam* “of *Ghrita*³⁰ Here the medicines to be processed with *Ghrita* can be decided by the physician according to his *Yukti* & by the properties of medicine as well as *Ghrita* it acts on the condition. Recent researches show the effect of *Ghrita* on neurons in neurological problems & also in case of regeneration of neurons in animals³¹. In *Ayurveda*, *Gritha* is one among the three main drugs which can have direct effect on the neurons by maintaining the neuron structures along with *Kushmanda & Yashtimadhu* & that may be the reason it is mentioned that those who desire

for *Dhee(Intelligence), Smriti(Memory)*, *Medha* (Intellect) etc prefer *Ghrita*³² For those who are regularly suppressing urination due to their nature of work, habits or any unavoidable reasons shall try taking *Avapeedaka Snehapana* in smaller dose on a regular basis as a part of their routine.

The symptoms mentioned in classics are mainly due to the vitiation of *Apana* &

Vyana vata. They are mostly painful conditions occurring as a result of neurological irritation or muscular stretching. The process of urination is controlled by 3 sets of peripheral nerves involving the parasympathetic, sympathetic & somatic nervous system.

a) Pelvic parasympathetic nerves – Arise at the scleral level of the spinal cord, excite the bladder & release the urethra.

b) Lumbar sympathetic nerves – Inhibits & excite the bladder body, bladder base & urethra.

c) Pudendal nerves – Excite the external urethral sphincter.³³

When the person suppresses the urine there is an irritation to the above mentioned nerves axons which results in pain & as the pain at the level of bladder, urethra & scrotal region (which are primary functional areas of *apana vata*). These constant irritations cause reverse reflex towards the brain so as to increase the water re absorption & which results in decreased production of urine & less stretching of urinary bladder. The water re absorption is controlled by pituitary gland which is not programmed for such an action.³⁴ For the pituitary to increase the water re absorption the body has to undergoes condition like dehydration, severe exercise, loss of blood, excessive sweating etc. For these the CNS increase the motor functions of the body by increasing the contractions of the muscles mainly of the abdomen, pelvic region, gluteal region etc. This involuntary muscle contraction may results in *Angabhanga* or the person feels totally exhausted even though he is not active while suppressing the urine.

Snehana increases the stretchability elasticity of the body muscles & by which the pain due to stretching of muscles shall be decreased. This effect is once again en-

hanced by the use of *Ghrita* due to its *Samskarasya Anuvartana* property carries the effect of medicine which is added to it & provides the double impact on the person who is suppressing the urge of urine.

CONCLUSION: The suppression of the *Mutravega* regularly for long duration will lead to many complications. The symptoms of *Mutra vegadharana* are mainly painful conditions and *Avapeedaka Snehapana* can adopt in these conditions. The reasons for not being practiced like other *Snehana* procedures are because of the less understanding of the concept of administration, scattered and minimal textual references. *Avapeedaka Sneha* losing its significance from the practices and the concept remains unexplored. So there is a need to acquire correct knowledge and the clinical applicability of this unique concept according to the *Yukthi* of physician in *Mutra vegadharana janyavikaras* as well as other diseases having similar pathology.

REFERENCES

1. K.R.Srikantamurthy (ed)- Astangahridaya, sutrasthana, volume 1, chaukambha orientalia, 5th edition, 2004 , chapter 4, sloka 5-7, page 46
2. K.R.Srikantamurthy (ed) - Astangahridaya, chikitsa sthana, volume 2, chaukambha orientalia, 5th edition, 2003 chapter 8, sloka 100, page 322
3. Vaidya Bhagwan Dash (ed) - caraka samhita, chikitisa sthana Vatavyadhi chikitsa, volume 5 chaukambha orientalia, reprint edition, 2004, chapter 28, sloka 98, page 51
4. Vagbhata. Ashtanga Hridayam, sutrasthana with commentaries sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri. Murthy KRS, trans. Varanasi, India: Chowkhamba Krishnadas Academy; 2001:54. [Google Scholar]
5. Gugulothu Ramesh, Yadhav C.R – A physiological study of *Adharaneeya Vega* w.s.r. to *Apana Vayu Vega*, National Institute of Ayurveda, Jaipur, Rajasthan, India, International Ayurveda Medical Journal (ISSN:2320 5091) (September,2017)5(9)s
6. Bhishagacharya Harisastri Paradakara Vaidya (ed) - *Ashtanga Hridayam*, Chaukamba Orientalia, Varanasi, 10th edition, 2017, *Sutra Sthana* Chap. 4
7. Stoker J, Bartram CI, Halligan S. Imaging of the posterior pelvic floor. Eur Radiol. 2002;12:779–788. [PubMed] [Google Scholar]
8. Junyang Jung, Kwang ahn, Hyoyoungbuhm Huh - Clinical and Functional Anatomy of the Urethral Sphincter., International Neurourology Journal. [Online] 2012; 16(2093-4777): Available from: <http://dx.doi.org> [Accessed].
9. Hall & Guyton –A Textbook of Medical Physiology, Chap 11th, 26th Unit 5th, P No. (311-313)
10. Pandey K, Chaturvedi G, eds. Charaka Samhita Vatavyadhi Chikitsa Adhyaya, Varanasi, India: Chaukambha Bharati Academy; 2015: 775 Reprints.
11. Shastri A.D. (Ed), Susruta Samhita, Vatavyadhi Nidana Adhyaya, Ayurveda Tatwa Sandipika Hindi Commentary, Varanasi (India): Chaukhamba Sanskrit Sansthan; Edition-2014.page no-296.
12. Tripathy B.N. Eds, , Astanga Hridaya- Doshabhediya Adhyaya Varanasi, India: Chaukambha Sanskrit Pratisthan; 2012: 171 Reprint
13. Gupta A.D. Eds, , Astanga Sangraha Doshabhediya Adhyaya Varanasi, India: Chaukambha Krishnadas Academy; 2012: 160 Reprints.

14. Pandey K, Chaturvedi G, eds. Charaka Samhita Vatavyadhi Chikitsa Adhyaya, Varanasi, India: Chaukambha Bharati Academy; 2015: 775 Reprints.
15. Shastri A.D. (Ed), Susruta Samhita, Vatavyadhi Nidana Adhyaya, Ayurveda Tatwa Sandipika Hindi Commentary, Varanasi (India): Chaukhamba Sanskrit Sansthan; Edition-2014. page no-296.
16. Tripathy B.N. Eds, , Astanga Hridaya- Doshabhediya Adhyaya Varanasi, India: Chaukambha Sanskrit Pratisthan; 2012: 171 Reprint
17. Gupta A.D. Eds, , Astanga Sangraha Doshabhediya Adhyaya Varanasi, India: Chaukambha Krishnadas Academy; 2012: 160 Reprints.
18. Shastri A.D. (Ed), Susruta Samhita, , Ayurveda Tatwa Sandipika Hindi Commentary, Varanasi (India): Chaukhamba Sanskrit Sansthan; Edition-2014. Nidana stana 1/20.
19. P. B. Kadambari , Prasanth Dharmarajan , C. K. Prathibha, and P. V. Anandaraman,- A Critical Review on the Concept of Avapeedaka Snehapana, a Special Mode of Lipid Administration- Journal of Evidence-Based Integrative Medicine Volume 23: 1-5
20. Sharma SP (ed)- Ashtang sangraha, 1st edition ed.). Varanasi: Chaukhambha sansrit series officeS 2006. Sutra sthana, Bheshajawacharaniya adhyaya, 23/14
21. Bhishagacharya Harisastris Paradakara Vaidya (ed) - *Ashtanga Hridayam*, Chaukamba Orientalia, Varanasi, 1^{0th} edition, 2017, *Sutra Sthana* Chap. 4/6.
22. Adibhatla Rao Muralikrishna, Hatcher JF, Dempsey RJ. Lipids and lipidomics in brain injury and diseases. AAPS J 2006; 8(2):E314e21.
23. Arshiya Shamim, Tarique Mahmood, Farogh Ahsan, Arun Kumar, Paramdeep Bagga. Lipids: An insight into the neurodegenerative disorders. Clinical Nutrition Experimental. [Online] 2018; 20(05-001): 1-9. Available from: <https://doi.org/10.1016/j.clnex.2018.05.001> [Accessed May 2018]
24. Vaidya jadavji Trikamji Acharya (ed) – *Charaka Samhita, Chaukamba Orientalia, Varanasi*, Edition: Reprint: 2015 *Sutra Sthana* chap. 7/6, Pg. No: 49.
25. Murthy Srikantha R K Hindi Translation of *Sushruta Samhita* Edition: Reprint 2012 Chaukhamba Orientalia Varanasi, Vol III *Uttara Tantra* 55.
26. Bhishagacharya Harisastris Paradakara Vaidya (ed)- *Ashtanga Hridayam*, Chaukamba Orientalia, Varanasi, 10th edition, 2017, *Sutra Sthana* 4/4, Pg. No: 53.
27. . Agnivesa Caraka, Drdhabala Kasinatha Sastri, Pandeya G. Caraka Samhita Revised by Caraka and Drdhabala. with commentary Ayurveda dipika by cakrapanidatta, Varanasi, India: Chaukhambha Krishnadas Academy.; 1969:621.
28. Vagbhata. *Ashtanga Hridayam*, sutrasthana, with commentaries sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri. Murthy KRS, trans. Varanasi, India: Chowkhamba Krishnadas Academy; 2001:54.
29. P. B. Kadambari , Prasanth Dharmarajan , C. K. Prathibha, and P. V. Anandaraman,- A Critical Review on the Concept of Avapeedaka Snehapana, a Special Mode of Lipid Administration- Journal of Evidence-Based Integrative Medicine Volume 23: 1-5
30. Acharya YT. Caraka Samhita with Ayurveda Deepika Commentary of Chakrapanidatta. Reprint. Varanasi: Chaukambha publication; 2011. p.82.

31. Dixit A ,Sandu A ,Modi S et al - Neuronal control of lipid metabolism by STR- 2 G protein- coupled receptor promotes longevity in *Caenorhabditis elegans*-*Aging Cell* ,2020;19e:13160
32. Dr.Elakiya K, Dr.Priyanka K Rao,Satish Pai: Applicability of Exploring Unconventional Cognitive Enhancers Through Evidence Based Scientific Studies – A Review; ayurpub; IV(6): 1412-1422
33. Chancellor MB, Yoshimura N. Part V: physiology and pharmacology of the bladder and urethra. In: Walsh PC, Retik AB, Vaughan ED Jr, Wein AJ, editors. Campbell's Urology. 8th ed. Vol 2. Philadelphia: WB Saunders; 2002. pp. 831–886. [Google Scholar]

34. Guyton & Hall, Textbook of medical physiology, Chap 66th , Edition: 11th , Reprint: 2006, p. 825

Corresponding Author: Dr Rini P, PG Scholar, Department of PG Studies in Swasthavritta, Government Ayurveda Medical College, Mysuru, Karnataka
E-mail-nisargarekha@gmail.com

Source of support: Nil Conflict of interest:
None Declared

Cite this Article as : [Rini P et al : Action of Avapeedaka Sneha on Mutra Vegadharana Janya Lakshanas- A Review] www.ijaar.in : IJAAR VOLUME IV ISSUE XI NOV–DEC 2020
Page No:1267-1275



KERALA UNIVERSITY OF HEALTH SCIENCES

Thrissur, Kerala-680596

Academic Staff College

Certificate

No: 12891/2022/schools and centres/kuhs

Date : 24/11/2022

This is to certify that Mr./Ms./Dr. ATHRI S S has successfully completed the **'Training Program on Effective Implementation of New BAMS Curriculum under KUHS: Planning and implementation'** on the topics Interactive learning & an overview and Teaching learning practices learning in the context of new curriculum conducted under Academic Staff College, Kerala University of Health Sciences on 30th April 2022.



Prof. Dr . A.K. Manoj Kumar
Registrar, Director I/C,
Academic Staff College, KUHS

Dr. Jayan D
Coordinator,
Dean Faculty of Ayurveda, KUHS

Prof.(Dr.)Anny Mathew
Associate Professor,
Academic Staff College, KUHS



KERALA UNIVERSITY OF HEALTH SCIENCES

Thrissur, Kerala-680596

Academic Staff College

Certificate

No: 12891/2022/schools and centres/kuhs

Date : 26/11/2022

This is to certify that Mr./Ms./Dr. ATHRI S S has successfully completed the **'Training Program on Effective Implementation of New BAMS Curriculum under KUHS: Planning and implementation'** on the topics Vision and Mission of curricular reforms by NCISM and Outline of lesson planning and feedback conducted under Academic Staff College, Kerala University of Health Sciences on 05th May 2022.



Prof. Dr . A.K. Manoj Kumar
Registrar, Director I/C,
Academic Staff College, KUHS

Dr. Jayan D
Coordinator,
Dean Faculty of Ayurveda, KUHS

Prof.(Dr.)Anny Mathew
Associate Professor,
Academic Staff College, KUHS



KERALA UNIVERSITY OF HEALTH SCIENCES

Thrissur, Kerala-680596

Academic Staff College

Certificate

No: 12891/2022/schools and centres/kuhs

Date : 28/11/2022

This is to certify that Mr./Ms./Dr. ATHRI S S has successfully completed the **'Training Program on Effective Implementation of New BAMS Curriculum under KUHS: Planning and implementation'** on the topics Principles of assessment & an overview and Introduction to preparation of practical guidelines for effective implementation of new curriculum in KUHS conducted under Academic Staff College, Kerala University of Health Sciences on 12th May 2022.



Prof. Dr . A.K. Manoj Kumar
Registrar, Director I/C,
Academic Staff College, KUHS

Dr. Jayan D
Coordinator,
Dean Faculty of Ayurveda, KUHS

Prof.(Dr.)Anny Mathew
Associate Professor,
Academic Staff College, KUHS

ROLE OF ASPHOTA (HEMIDESMUS INDICUS R.BR.) KSHARASUTRA IN THE MANAGEMENT OF LOW-ANAL FISTULA

[V. P. Rechana](#)¹, [V.V. Soumya](#)²

¹Final year PG scholar Department of Shalyatantra, Pankajakasthuri Ayurveda Medical College and Post Graduate Centre, Thiruvananthapuram, Kerala, India

²M.S., Assistant Professor, Department of Shalyatantra, Pankajakasthuri Ayurveda Medical College and Post Graduate Centre, Thiruvananthapuram, Kerala, India

Corresponding Author: rechanavp@gmail.com

<https://doi.org/10.46607/iamj0209122021>

(Published Online: December 2021)

Open Access

© International Ayurvedic Medical Journal, India

Article Received: 17/10/2021 - Peer Reviewed: 30/10/2021 - Accepted for Publication 31/10/2021



ABSTRACT

In this modern era, due to a sedentary lifestyle and improper dietary habit digestive disorder shows greater incidence. Among them, fistula-in-ano is troubleshooting one, which is a communicating tract between two epithelial surfaces lined by granulation tissues. Due to the higher recurrence rate and postoperative complication fistula-in-ano is a headache in the present era. In Ayurvedic classics, Ksharasutra prayoga is mentioned for the treatment of Nadi Vrana, which can be adopted in the management of anal fistula. The objective of the present study was to be evaluated the efficacy of Asphota Kshara sutra in the management of low anal fistula. The clinical trial was conducted in OPD and IPD of Shalyatantra department at Pankajakasthuri Ayurveda Medical College. The intervention was ligation of the fistulous tract with Asphota Ksharasutra. 25 subjects were selected satisfying inclusion and exclusion criteria. The clinical assessment was done before treatment, after treatment and follow up on the 30th day after cutting through of the tract. The assessment was done based on parameters prepared for anal fistula by Paul O Madson and Peter. Pain, burning sensation, inflammation, itching, discharge and unit cutting time was statistically analysed in different periods. Outcome variables were analysed statistically by using the Friedman test and Wilcoxon signed-rank test, and a conclusion was drawn. Pain, burning sensation, inflammation, discharge, itching was effectively managed using Asphota Ksharasutra. The unit cutting time of Asphota ksharasutra was found to be more

than standard Ksharasutra. The result showed that Asphota Ksharasutra is effective in the management of low anal fistula.

Keywords: Fistula-in-ano; Asphota ksharasutra.

INTRODUCTION

Ayurveda is one of the holistic healing systems, which apart from providing various therapeutic measures for various diseases, emphasizes maintenance and which help in the promotion of health and prevention of diseases through diet and lifestyle regimens. Out of eight branches of Ayurveda Shalyatantra is the pioneer of surgery and Acharya Susrutha is the real torch bearer of surgical practitioners and the people considers him as the 'father of surgery'. He had laid down the unique principles regarding surgical treatment like ksharasutra, agnikarma, rakthamoksha, and shastrakarma. Among them, the ksharakarma is the most important para surgical procedure and ksharasutra is the chief piece of work of ksharakarma.

The anal canal is the site of many diseases. Most conditions arising in this area are incapacitating and interfere with the quality of life. Among them, bhagandara is a troubleshooting one. The tearing of бага, guda and vasthi with acute pain is known as bhagandara. This disease starts as a pidaka or boil which suppurates and burst open to form bhagandara^{1,2,3}. The surgical management of bhagandara (fistula-in-ano) carries several complications and a higher recurrence rate. To overcome this problem ksharasutra therapy has been described^{4,5,6}. It is found to be very successful with a very less recurrence rate of 3.8%. This procedure is economical, safe and cost-effective with fewer adverse effects and a higher success rate.

In the present study, the treatment procedure adapted is ksharasutra prayoga. The drug used for the preparation of ksharasutra is Asphota (*Hemidesmus indicus* R. Br) which is mentioned in ksharapaka vidhi adhya of Susrutha Samhita. Acharya Dalhana explained Asphota as Sariba in his commentary. This drug has Madhura, Tikta Rasa, Sheetha virya and Madhura Vipaka.

The objective of the study is to evaluate the efficacy of Asphota Ksharasutra in the management of low anal fistula.

The aim of the study is a better understanding of fistula-in-ano, to evaluate the efficacy of Asphota ksharasutra in the management of low anal fistula.

Materials and Method

Trial Design

The study design is an interventional pre-test and post-test study without a control group. The period of intervention depends on the length of the fistulous tract, till complete cutting of the tract is attained. The present study was done fully adhering to GCP-ICH guidelines with IEC approval. The IEC clearance was obtained vid reference no: PKAMC/IEC/37/19

Study Setting

OPD and IPD, of Department of Shalyatantra Pankajakathuri Ayurveda Medical College and PG centre, Kattakada, Trivandrum.

Study Population

Subjects of age group between 18 to 70 years with low anal fistula irrespective of gender. The sample size for the study was 25 considering 10% dropout.

Sampling Technique

The subjects were selected by consecutive sampling methods from the OPD and IPD of the Department of Shalyatantra, Pankajakathuri Ayurveda Medical College and PG Centre, Kattakada, Trivandrum till sample size was obtained.

Diagnostic Criteria

Diagnosed by classical signs and symptoms of Bhagandara (fistula-in-ano)³

The fistulous tract was confirmed after probing.

Inclusion Criteria

1. Subjects of age group between 18 to 70 years
2. Subjects were selected irrespective of gender, religion, caste and economic status.
3. Subjects diagnosed with low anal fistula.

Exclusion Criteria

1. Subjects with high anal fistula
2. Pregnant women
3. Subjects with uncontrolled Diabetes Mellitus
4. Diagnosed cases of HIV, HBsAg positive patients and cardiovascular patients.
5. Fistula in ano secondary to
 - Ulcerative colitis
 - Crohn's disease
 - Tuberculosis
 - Colloidal Carcinoma of the rectum

Assessing criteria

1. Pain
2. Burning sensation
3. Inflammation
4. Discharge
5. Itching
6. Unit cutting time

Signs and symptoms found were graded based on the scoring system prepared for that by Paul O Madson and Peter.

1. PAIN

Grade 0	No pain
Grade1	Negligible or tolerable pain. No need for any medicine
Grade2	Localized tolerable pain completely relieved by hot sitz bath.
Grade 3	Intolerable pain, not relieved by sitz bath, relieved by oral analgesics. No sleep disturbance.
Grade 4	Continuous and intolerable pain with sleep disturbance. The patient seeks medical help as early as possible.

2. BURNING SENSATION

Grade 0	No burning sensation.
Grade 1	The negligible feeling of burning sensation for a few minutes in a day
Grade 2	Tolerable burning sensation completely relieved by hot sitz bath or local oleation
Grade3	Tolerable but constant burning sensation relieved by hot sitz bath or local oleation
Grade4	The unbearable burning sensation makes the patients seek medical help as soon as possible

3. INFLAMMATION

Grade0	No sign of inflammation around the external opening
Grade1	Very little inflammation around the external opening
Grade2	Inflammation in 1 cm diameter of the external opening
Grade3	Inflammation in 2cm diameter of the external opening

4. DISCHARGE

Grade 0	No sign of any discharge
Grade 1	The occasional appearance of discharge and patients use a single cotton pad in 24 hrs
Grade 2	The frequent appearance of discharge and patient used 3-4 cotton pads in 24 hrs
Grade 3	Increased frequency of discharge and patient use 5-6 cotton pads in 24 hrs
Grade 4	Continuous discharge.

5. ITCHING

Grade 0	No complaint of itching
Grade 1	Negligible itching for a few minutes a day
Grade 2	The occasional sensation of itching
Grade 3	The frequent sensation of itching with 4-6 hours interval
Grade 4	The continuous sensation of itching with 15-30 minutes intervals.

Unit cutting time

Total number of days for cut-through

The initial length of ksharasutra (in cm)

Withdrawal Criteria

1. The unwillingness of the subject to continue
2. Adverse drug reaction

Investigation

- Haematological examination: Hb %, TC, DC, ESR, RBS
- Coagulation profile: BT, CT
- X-ray Fistulogram was done in necessary subjects.

Data Collection

Assessment parameters were collected by personal interview, clinical examination and case record form. The assessment was done before treatment, after treatment (after cutting through of tract) and in follow up period (30th day after completing cut through of tract).

Duration of Study

Total duration 18 months

Period of intervention- depending on the length of the fistulous tract.

Procedure

All the subjects in the trial group were treated using the Asphota kshara sutra.

Preparation of trial drug-Asphota Kshara sutra

Preparation of Asphota Mridhu Kshara

Raw drugs were collected from an authorized dealer and Ksharasutra was prepared in the Department of Salyatantra, Pankajakasthuri Ayurveda Medical College and Post Graduate Centre, Trivandrum.

The whole plant of asphota was taken, it was dried well and burned on a clean surface, all the ash was collected

and kept in a vessel to cool. The next day the whole ash was dissolved in six times of water. Then it was kept undisturbed for 12 hours duration. The next day the mixture was filtered 21 times and the filtrate was heated on the gas furnace in a stainless-steel pot until all water was evaporated and till white amorphous powder was obtained. The amorphous powder obtained was made fine powdered with pestle and mortar and sieved through double layer muslin cloth and kept in an airtight glass container.

Preparation of Asphota Kshara Sutra

The Asphota kshara sutra was prepared by a repeated coating of *snuhi ksheera*, *asphota kshara* and *haridra choorna* over surgical barbus linen tread no 20. This thread is tied tightly throughout lengthwise in hangers. Each thread on the hanger was smeared with *snuhi* latex with help of a gauze piece soaked in *snuhi* latex. This wet hanger is transferred into *kshara sutra* cabinet. The same process was repeated the next day. Eleven such coatings with *snuhi ksheera* alone were accomplished. The twelfth coating was done by first smearing the thread with *snuhi ksheera* and in wet condition, a thread was smeared with *asphota kshara*. It is again transferred into the cabinet for drying. This process was repeated till seven coatings of *snuhi ksheera* and *asphota kshara* is achieved. The final three coatings were completed with *snuhi ksheera* and fine powder of *haridra* in the same manner. Thus, twenty-one coatings over the thread were completed.

The order of coating is divided as follows

Table 1: Asphota ksharasutra preparation

Ingredients	No of coating
<i>Snuhi ksheera</i>	11
<i>Snuhi ksheera</i> + <i>asphota Mridhu Kshara</i>	7
<i>Snuhi ksheera</i> + <i>haridra</i>	3
Total coating	21

Preservation of Kshara Sutra: After the 21 coatings and exposure to UV rays, each thread was sealed into a glass tube. The tube was open only at the time of use.

Pre-Operative Procedure: After obtaining informed consent, vitals were measured and recorded. The patient was kept nil per oral for at least 4 to 6 hours. Soap water or phosphate enema was given 2hours before the

procedure. The later perianal and perineal region was prepared.

Materials used: - Mosquito forceps-2, suture cutting scissors, malleable copper probe, sponge holding forceps, instrument tray, cotton swab, sterile cotton pad, *Asphota kshara* sutra, micropore.

Operative Procedure

The patient was kept in lithotomy position and part was prepared by using betadine solution 10% followed by surgical spirit. Local anaesthesia was given using injection lignocaine hydrochloride 2% in the presence of a trained surgeon. The patient was advised to relax his thigh and anal sphincter. After reassuring the patient, digital and proctoscopy examinations were conducted. Then a malleable copper probe was inserted through the external opening of the fistula. The tip of the probe was forwarded along the path of least resistance and was guided by the gloved finger in the lumen of the anal canal to support the advancement of

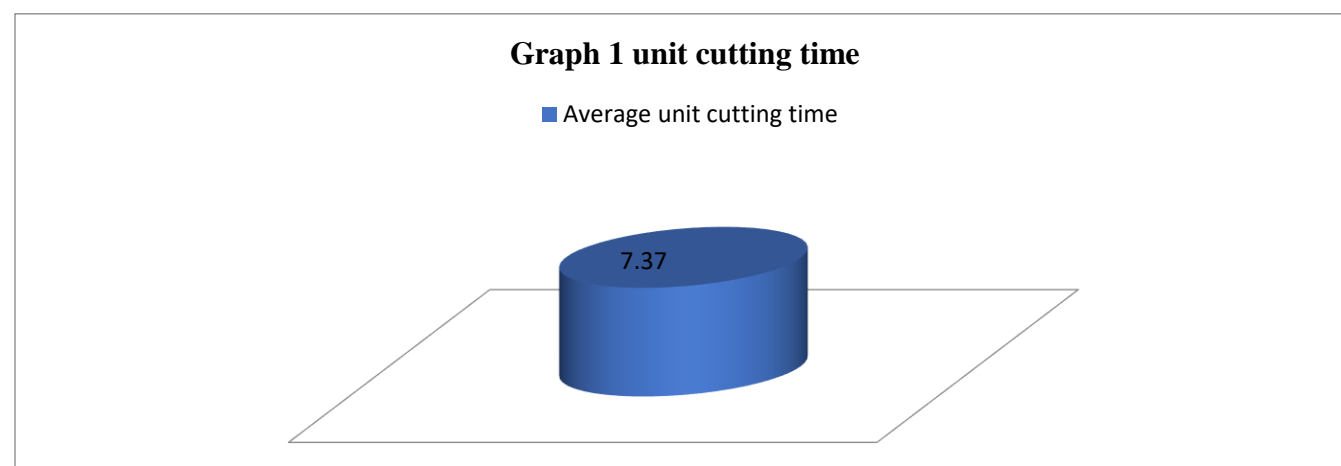
the probe towards the internal opening. The tip of the probe was finally directed to come out through the anal orifice. A then suitable length of *Asphota kshara* was taken and threaded into the eye of the probe. Thereafter the probe was pulled out through the anal orifice to leave the thread behind in the fistulous tract. The two ends of the *Ksharasutra* were tied together with a moderate tightness outside the anal canal.

Post-Operative Procedure: Blood clots in and around the anal canal and perineal region were cleaned. Then a surgical pad was placed in the area. Haemostasis was attained. Vitals were checked and recorded. The anal dressing was done.

Follow Up: The patient was reviewed every week for wound care and thread change.

1. Unit Cutting Time

Unit cutting time of patients lies in the range 4.4 – 11.3. The calculated average unit cutting time is 7.37.



RESULTS – Statistical Analysis and Interpretations

1. Effect Of Intervention on Pain

Table 2: Result of Friedman Test for Pain

Period	Mean rank	SE
BT	3	0.206
AT	1.5	0
Follow up	1.5	0

Table 3: Effect of intervention on pain

Chi-square	46.00
P-value	<0.001

The chi-Square value for the Friedman test for comparing the effect of the intervention on pain at different periods [46.00] was found to be significant and P-value was <0.001. Hence rejected the null hypothesis, and accept that there exists a significant difference between at least one pair of the period in

terms of pain. As there exists a significant difference between different periods, pairwise comparison was done by using the Wilcoxon Signed-Rank test for finding out which of the periods are different and which are not different.

Table 4: Result of Wilcoxon Signed Rank Tests for Pain

Pairs	Calculated value (Z)	P-value	Significance difference
BT and AT	-4.238	<0.001	Present
BT and Follow up	-4.238	<0.001	Present
AT and Follow up	0	1.00	Absent

The result shows that there exists a significant difference between the before treatment group and after treatment group at the 1% level. Also, there exists a significant difference between the before treatment

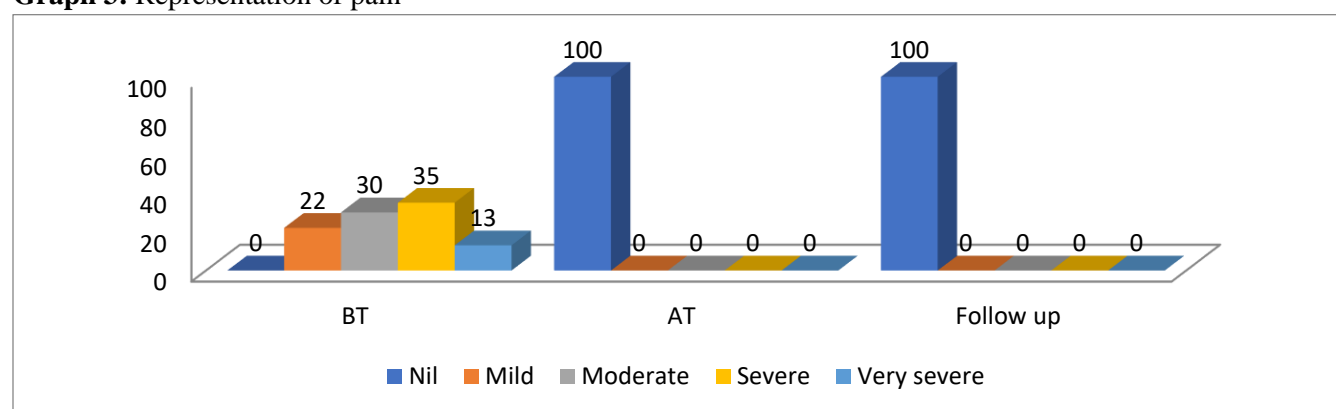
group and follow up group at the 1% level. There is no significant difference between after treatment group and follow up the group. It means that intervention helps to reduce pain.

Table 5: Assessment of pain based on Paul O Madson & Peter scoring system

Period	Response									
	Nil		Mild		Moderate		Severe		Very severe	
	N	%	N	%	N	%	N	%	N	%
BT	0	0	5	22	7	30	8	35	3	13
AT	23	100	0	0	0	0	0	0	0	0
Follow up	23	100	0	0	0	0	0	0	0	0

All the mild, moderate, severe and very severe cases of pain before treatment had been cured after treatment. There were no nil pain cases before treatment. But after treatment nil cases had increased to 100%.

Graph 3: Representation of pain



2. Effect Of Intervention on Burning Sensation

Table 6: Result of Friedman Test for Burning Sensation

Period	Mean rank	SE
BT	2.74	0.224
AT	1.63	0
Follow up	1.63	0

Table 7: Effect of intervention on the burning sensation

Chi-square	34.00
P-value	<0.001

Chi-Square value for the Friedman test for comparing the effect of the intervention on burning sensation at different periods [34.00] was found to be significant and P-value was <0.001. Hence rejected the null hypothesis, and accept that there exists a significant difference between at least one pair of the period in

terms of burning sensation. As there exists a significant difference between different periods, pairwise comparison was done by using the Wilcoxon Signed-Rank test for finding out which of the periods are different and which are not different.

Table 8: Result of Wilcoxon Signed Rank Tests for burning sensation

Pairs	Calculated value (Z)	P-value	Significance difference
BT and AT	-3.674	<0.001	Present
BT and Follow up	-3.674	<0.001	Present
AT and Follow up	0	1.00	Absent

The result shows that there exists a significant difference between before treatment group and after treatment group at 1% level. Also, there exists a significant difference between the before treatment

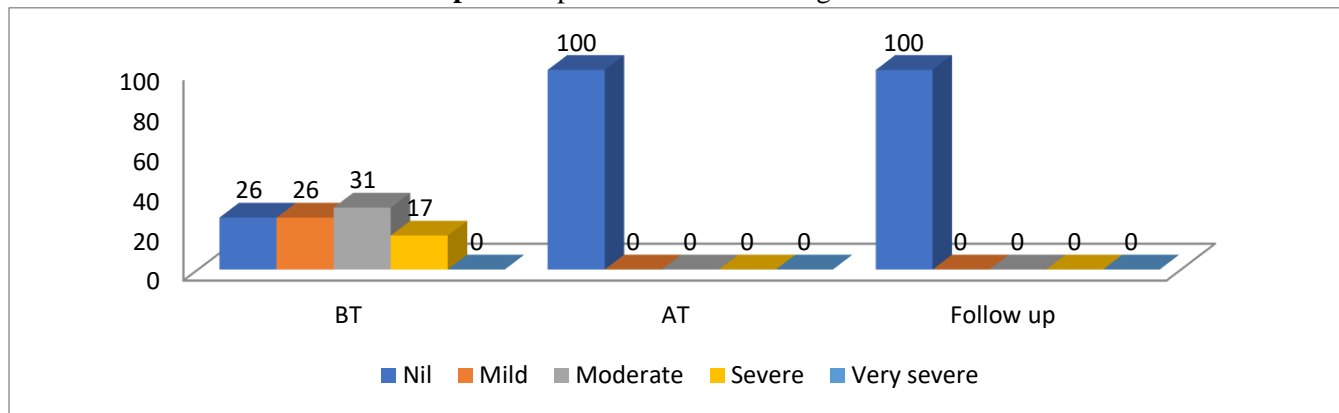
group and follow up group at the 1% level. There is no significant difference between after treatment group and follow up the group. It means that intervention helps to reduce the burning sensation.

Table 9: Assessment of burning sensation based on Paul O Madson & Peter scoring system

Period	Response									
	Nil		Mild		Moderate		Severe		Very severe	
	N	%	N	%	N	%	N	%	N	%
BT	6	26	6	26	7	31	4	17	0	0
AT	23	100	0	0	0	0	0	0	0	0
Follow up	23	100	0	0	0	0	0	0	0	0

Before treatment, there were 17% severe cases, 31% moderate cases and 26% mild cases of burning sensation. But after treatment, all those cases had cured and nil cases of burning sensation had increased from 26% to 100% during the study period.

Graph 5: Representation of burning sensation



3. Effect of intervention on inflammation

Table 10: Result of Friedman Test for inflammation

Period	Mean rank	SE
BT	3	0.17
AT	1.5	0
Follow up	1.5	0

Table 11: Effect of intervention on inflammation

Chi-square	46.00
P-value	<0.001

Chi-Square value for the Friedman test for comparing the effect of the intervention on inflammation at different periods [46.00] was found to be significant and P-value was <0.001. Hence rejected the null hypothesis, and accept that there exists a significant difference between at least one pair of the period in

terms of inflammation. As there exists a significant difference between different periods, pairwise comparison was done by using the Wilcoxon Signed-Rank test for finding out which of the periods are different and which are not different.

Table 12: Result of Wilcoxon Signed Rank Tests for inflammation

Pairs	Calculated value (Z)	P-value	Significance difference
BT and AT	-4.256	<0.001	Present
BT and Follow up	-4.256	<0.001	Present
AT and Follow up	0	1.00	Absent

The result shows that there exists a significant difference between before treatment group and after treatment group at 1% level. Also, there exists a significant difference between the before treatment

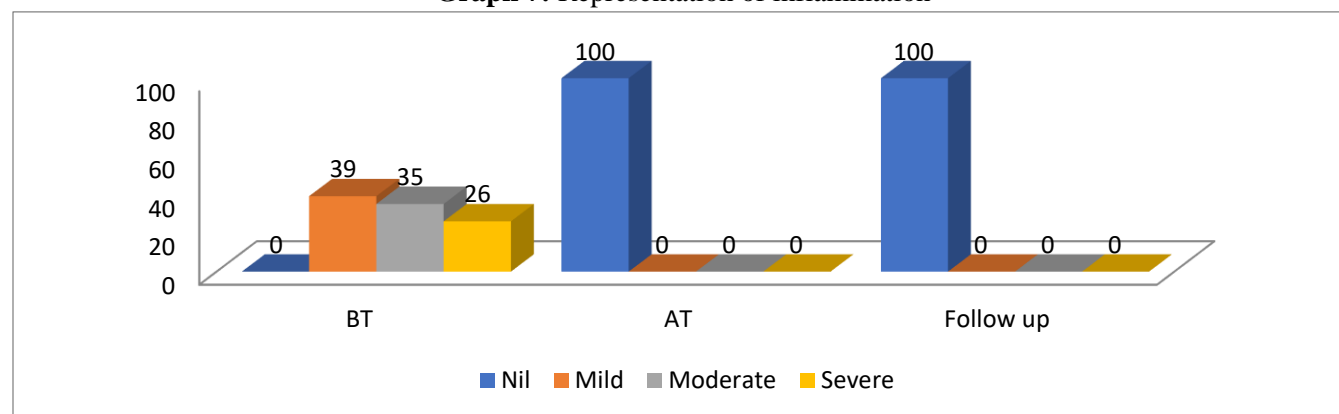
group and follow up group at the 1% level. There is no significant difference between after treatment group and follow up the group. It means that intervention helps to reduce inflammation.

Table 13: Assessment of inflammation based on Paul O Madson & Peter scoring system

Period	Response							
	Nil		Mild		Moderate		Severe	
	N	%	N	%	N	%	N	%
BT	0	0	9	39	8	35	6	26
AT	23	100	0	0	0	0	0	0
Follow up	23	100	0	0	0	0	0	0

All the mild, moderate and severe cases of inflammation before treatment had cured after treatment. Nil cases had increased from 0% to 100% during the study period.

Graph 7: Representation of inflammation



4. Effect of intervention on discharge

Table 14: Result of Friedman Test of discharge

Period	Mean rank	SE
BT	2.83	0.197
AT	1.59	0
Follow up	1.59	0

Table 15: Effect of intervention on discharge

Chi-square	38.00
P-value	<0.001

Chi-Square value for the Friedman test for comparing the effect of the intervention on discharge at different periods [38.00] was found to be significant and P-value was <0.001. Hence rejected the null hypothesis, and accept that there exists a significant difference between at least one pair of the period in terms of

discharge. As there exists a significant difference between different periods, pairwise comparison was done by using the Wilcoxon Signed-Rank test for finding out which of the periods are different and which are not different.

Table 16: Result of Wilcoxon Signed Rank Tests on discharge

Pairs	Calculated value (Z)	P-value	Significance difference
BT and AT	-3.921	<0.001	Present
BT and Follow up	-3.921	<0.001	Present
AT and Follow up	0	1.00	Absent

The result shows that there exists a significant difference between before treatment group and after treatment group at 1% level. Also, there exists a significant difference between the before treatment

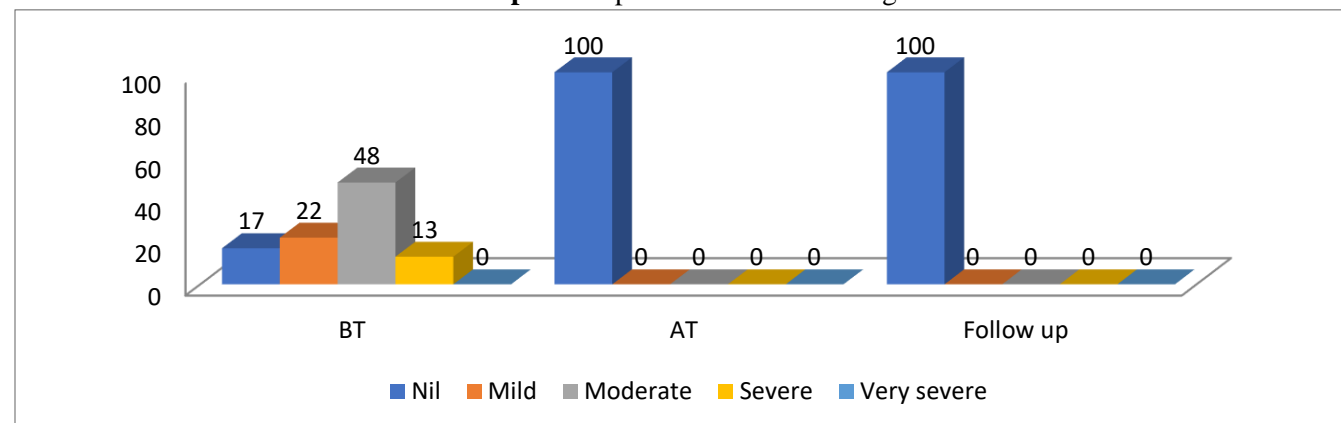
group and follow up group at the 1% level. There is no significant difference between after treatment group and follow up the group. It means that intervention helps to reduce discharge.

Table 17: Assessment of discharge based on Paul O Madson & Peter scoring system

Period	Response									
	Nil		Mild		Moderate		Severe		Very severe	
	N	%	N	%	N	%	N	%	N	%
BT	4	17	5	22	11	48	3	13	0	0
AT	23	100	0	0	0	0	0	0	0	0
Follow up	23	100	0	0	0	0	0	0	0	0

All the mild, moderate and severe cases of discharge before treatment had been cured after treatment. Nil cases had increased from 17% to 100% during the study period.

Graph 9: Representation of discharge



5. Distribution according to itching

Table 18: Result of Friedman Test for itching

Period	Mean rank	SE
BT	2.57	0.166
AT	1.72	0
Follow up	1.72	0

Table 19: Effect of intervention on itching

Chi-square	26.00
P-value	<0.001

Chi-Square value for the Friedman test for comparing the effect of the intervention on itching at different periods [26.00] was found to be significant and P-value was <0.001. Hence rejected the null hypothesis, and accept that there exists a significant difference between at least one pair of the period in terms of

itching. As there exists a significant difference between different periods, pairwise comparison was done by using the Wilcoxon Signed-Rank test for finding out which of the periods are different and which are not different.

Table 20: Result of Wilcoxon Signed Rank Tests for itching

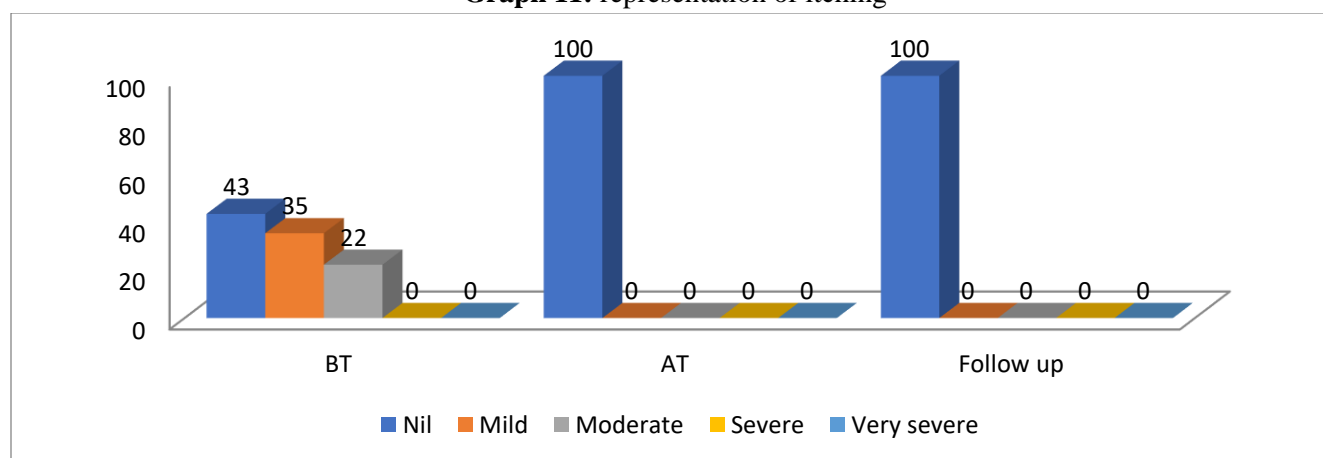
Pairs	Calculated value (Z)	P-value	Significance difference
BT and AT	-3.286	< 0.001	Present
BT and Follow up	-3.286	< 0.001	Present
AT and Follow up	0	1.00	Absent

Table 21: Assessment of itching based on Paul O Madson & Peter scoring system

Period	Response									
	Nil		Mild		Moderate		Severe		Very severe	
	N	%	N	%	N	%	N	%	N	%
BT	10	43	8	35	5	22	0	0	0	0
AT	23	100	0	0	0	0	0	0	0	0
Follow up	23	100	0	0	0	0	0	0	0	0

There were no severe and very severe cases of itching before treatment. All the mild and moderate cases of itching before treatment had cured after treatment. Nil cases of itching had increased from 43% to 100% during the study period.

Graph 11: representation of itching



PROBABLE MODE OF ACTION OF ASPHOTA KSHARASUTRA

Asphota drug is having *tikta*, *madhura rasa* and also belongs to *Madhura vipaka*, *sheethavirya* and *tridosha shamaka*. It is *vatahara* because of its *Madhura vipaka*, *pitta samaka* because of its *sheetha virya* and *Madhura vipaka*, *tikta* and *madhura rasa*. *Kaphasa-maka* due to *tikta rasa*. It is also having the property of *kusthaghna*, *kandughna*, *raktasodhana* and *raktapitta hara*. The fistula is a tract lined by unhealthy granulation tissue. So, we need a treatment modality that can ensure cutting and healing of the track simultaneously. *Tridosahara*, *raktapittahara*, *vranaropana* action of *asphota* along with mechanical cutting action of the

thread along with the properties of *haridra* and *snuhi* works in the disease.

The caustic property of *kshara* helps in the destruction of the unhealthy tissue and provide a healthy granulation tissue and promotes healing. *ksharasutra* helps in cutting and draining the track with simultaneously helping to attain the healing of the track. *Raktapitta hara* and *tridosha hara* and *vrana ropana* property fasten the wound healing. *Asphota* when made into *kshara* form which is having more potency, and when applied as *ksharasutra* has an added effect in managing fistula-in-ano. The post-operative care with sitz bath and daily dressing, *pathya karma* followed after

and during treatment might have helped in preventing the recurrence.

The caustic property of the *asphota kshara* will cause the disintegration of unhealthy granulation by the protein denaturation process. The curcumin content in the *haridra* act as a catalyst to activate the denaturation process. Along with antimicrobial action *haridra* and alkaloids present in the *snuhi* helps in the cutting, draining and healing of the fistulous tract.

DISCUSSION

Pain

The pain was the common complaint in all the subjects before treatment. During the treatment period pain gradually decreased, after treatment and in follow up time pain was completely absent in all subjects. The data was statistically analysed using the Friedman test. The P-value was found to be <0.001 which rejects the null hypothesis. And pairwise comparison was done using Wilcoxon signed-rank test and observed a significant difference between before treatment and after treatment, before treatment and follow up. There was no significant difference between after treatment and follow up. It means that the intervention helped to reduce pain, and there is no recurrence of pain in follow up period. This result may be due to *vatahara* property of the drug, *vata* is the main *dosha* that causes pain. *Vatahara* action of the drug is because the *Madhura vipaka* and *asphota Kshara* will have similar properties and help in reducing pain. When *Asphota* is converted to *kshara* from *tridoshaghana* and *ropana* property of *kshara* will combine with the *vranaropana* and *vranasodhana* property of *haridra* and *snuhi* respectively and help in reducing pain.

Burning Sensation

The burning sensation was a common symptom present in all subjects at different levels. During treatment burning sensation gradually decreased and became absent after treatment and follow up. The data were analysed using the Friedman test. The P-value was found to be <0.001 which rejects the null hypothesis. Pairwise comparison was done using Wilcoxon signed-rank test. The result shows that there exists a significant difference between before treatment, after

treatment and before treatment and follow up. And there is no significant between after treatment and follow up. It means that the study intervention helps reduce burning sensation and there is no recurrence of burning sensation in follow up period. This result may be due to *pitta samaka* action of the drug due to *sheetha virya* of the drug, so while converting it into *kshara Soumya guna* of *kshara* and along with the *sheetha virya* of *Asphota* and *pitta samaka* action of *haridra* might have helped to reduce the burning sensation.

Inflammation

Inflammation was present in all the subjects at different grades. During treatment inflammation gradually decreased and became absent after treatment and follow up. The data were analysed using the Friedman test. The P-value was found to be <0.001 which rejects the null hypothesis. Pairwise comparison was done using Wilcoxon signed-rank test. The result shows that there exists a significant difference between before treatment, after treatment and before treatment and follow up. And there is no significant between after treatment and follow up. It means that the study intervention helps reduce inflammation and there is no recurrence of inflammation in follow up period. This result may be due to *pittashamaka* action of the *Asphota* which is due to *madhura rasa*, *madhuravipaka* and *sheetha virya*. These properties might be maintained while converting it into *kshara*. Along with *shodhahara* property of *haridra* helped in the reduction of inflammation in *ksharasutra* form.

Discharge

Before treatment discharge was present in all subjects in variable grades. During treatment discharge gradually decreased and became absent after treatment and follow up. The data were analysed using the Friedman test. The P-value was found to be <0.001 which rejects the null hypothesis. Pairwise comparison was done using Wilcoxon signed-rank test. The result shows that there exists a significant difference between before treatment, after treatment and before treatment and follow up. And there is no significant between after treatment and follow up. It means that intervention helped reduce discharge and there was no recurrence of

discharge in follow up period. This result is probably due to *kaphahara* property of the drug due to *tikta rasa* while converting it to *kshara* the *stambaka* property of *kshara* along with *kaphahara* property of *Asphota* and *haridra* might be the probable mode of action to reduce the discharge.

Itching

Before treatment itching was absent in 43% of subjects and was present in the rest of the subjects at variable grades. During treatment itching gradually decreased and became absent after treatment and follow up. The data were analysed using the Friedman test. The P-value was found to be <0.001 which rejects the null hypothesis. Pairwise comparison was done using Wilcoxon signed-rank test. The result shows that there exists a significant difference between before treatment, after treatment and before treatment and follow up. And there is no significant between after treatment and follow up. It means that the intervention helps reduce itching and there is no recurrence of itching in follow up period. This result may be due to *kaphahara* property of *Asphota* due to its *tikta rasa* and also due to *kusthaghna* and *kandughna* property along with *rakta-shodhana*, *vishahara* action of *haridra* *vishaghna* property of *snuhi* might have helped in reducing itching.

Unit cutting time

Average unit cutting was evaluated, and the analysis shows that the average unit cutting time was 7.37 days/cm. The unit cutting time of standard *kshara sutra* is 7 days/cm¹⁰⁴.so, while analysing the unit cutting time it is assumed here that *asphota ksharasutra* is not superior to the standard *ksharasutra*.

CONCLUSION

In this study, the trial *ksharasutra* proved its efficacy in the cut-through of the low anal fistulous tract with a unit cutting time (UCT) of 7.37 days/cm. it is also found to have a significant effect in reducing the clinical symptoms of fistula -in-ano like, pain, inflammation, burning sensation and itching as assessed in the study. It was found to be free from any sort of side effects or adverse reactions during the clinical trial. Thus, the present clinical study proves that *Asphota*

ksharasutra can be used as a safe effective alternative *Ksharasutra* in treating low anal fistula.

REFERENCES

1. Susrutha. Bhagandara Nidana. In: Vaidya Jadavji Trikamji Acharya, editor. Susrutha Samhita. Varanasi: Chaukhamba Surbharati Prakashan; 2017. p 282- 4/11.
2. Susrutha. Bhagandara Nidana. In: Vaidya Jadavji Trikamji Acharya, editor. Susrutha Samhita. Varanasi: Chaukhamba Surbharati Prakashan; 2017. p 280- 4/4.
3. Susrutha. Bhagandara Nidana. In: Vaidya Jadavji Trikamji Acharya, editor. Susrutha Samhita. Varanasi: Chaukhamba Surbharati Prakashan; 2017. p280-4/5
4. Agnivesa. Swayathu Chikitsa. In: Vaidya Jadavji Trikamji Acharya, editor. Charaka Samhita. Varanasi: Chaukhamba Krishnadas Academy; 2007. p 490-12/97.
5. Susrutha. Visarpanadisthanaroga Chikitsitam. In: Vaidya Jadavji Trikamji Acharya, editor. Susrutha Samhita. Varanasi: Chaukhamba Surbharati Prakashan; 2017. p468-17/29,30,31,32.
6. Vagbhata. GranthiARBudasleepadaapachinadi Pratishedam. In: Bhisagacharya Harisastri Paradakara Vaidya, editor. Ashtangahrudayam: Varanasi: Chaukhamba Orientalia; 2015. p887- 30/35,36

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: P. Rechana & V.V. Soumya: Role Of Asphota (*Hemidesmus Indicus* R.Br.) Ksharasutra In The Management Of Low-Anal Fistulav. International Ayurvedic Medical Journal {online} 2021 {cited December 2021} Available from: http://www.iamj.in/posts/images/upload/2920_2932.pdf



NEW RELEASED

2022-23

*Management, Technical
&
School Books Publishers*

SUN INDIA PUBLICATIONS

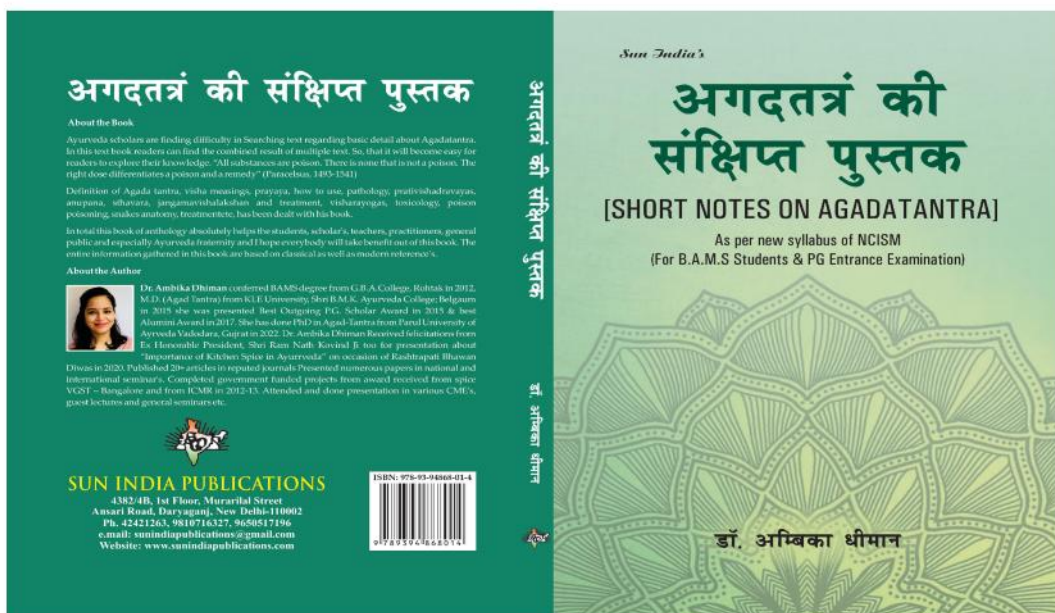
4382/4B, 1st Floor, Murari Lal Street
Ansari Road,

Darya Ganj, New Delhi-110002.

Ph.: 01142421263, 09810716327, 9650517196

e-mail : sunindiapublications@gmail.com

website : www.sunindiapublications.com



Book name : Short Notes on AGADATANTRA

Author : Dr. AMBIKA DHIMAN

ISBN NO. : 978-93-94868-01-4

Price : 430.00/-

Edition : 2022-23

ABOUT THE BOOK

Ayurveda scholars are finding difficulty in Searching text regarding basic detail about Agadatantra. In this text book readers can find the combined result of multiple text. So, that it will become easy for readersto explore their knowledge.

“All substances are poison. There is none that is not a poison. The right dose differentiates a poison anda remedy” (Paracelsus, 1493-1541)

Definition of Agada tantra, visha measings, prayaya, how to use, pathology, prativishadravayas,anupana, sthavara, jangamavishalakshan and treatment, visharayogas, toxicology, poison poisoning,snakes anatomy, treatmentete, has been dealt with his book.In total this book of anthology absolutely helps the students,scholar’s, teachers, practitioners, general public and especially Ayurveda ffeternity and I hope everybody will take benefit out of their book.