

**ROLE OF DEEPANA PACHANA IN PANCHKARMA**Swati Tiwari^{1*}, Rishu Sharma² and Sanjay Gupta³¹M.D. Scholar, Dept. of Panchakarma, Rishikul Campus (Haridwar), U.A.U.²M.D. Scholar, Dept. of Panchakarma, Rishikul Campus (Haridwar), U.A.U.³Associate Professor, Dept. of Panchakarma, Rishikul Campus (Haridwar), U.A.U.Article Received on
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Campus (Haridwar), U.A.U.**ABSTRACT**

“Ayurveda” is a Sanskrit word, derived from two roots: *Ayur*, which means ‘Life’ and *Veda* meaning ‘Knowledge’. Knowledge when arranged systematically with logic becomes a Science. During the due course of time, Ayurveda became the science of life. The Sanskrit word ‘*Agni*’ represents the fire element responsible for generating heat and chemical energy in the body. According to Ayurveda *agni* is the indicator of the functional aspect of life that monitors body temperature, metabolic enzymes, digestive process and the entire body physiology. *Agni* manifests all over the body however, the primary seat

of *agni* is the gastrointestinal tract where food is converted into nutrient and serves as the very source of energy. Ayurveda speaks the main cause of disease is rooted in the impairment of the body’s main fire called *agni*. Altered digestive fire can lead to production of *Ama*, a toxic material that initiates and promotes disease processes throughout the body. In the same way, free radicals are also found to be the root cause of many diseases. The majority of the free radicals that damage biological systems are oxygen-free radicals. These are the main byproducts formed in the cells of aerobic organisms. Panchkarma therapy is a special therapeutic procedure done for biopurification of the body. *Deepana* and *Pachana karmas* plays important role in bringing the *Sama dosha* (*doshas* associated with *ama*) to *Nirama* (*doshas* without *ama*) state, as they mobilize the *doshas* from *Shakha* to *koshtha* and thus helps in easy expelling of *doshas* from body.

KEYWORDS: *Agni*, *Ama*, Free radical, *Deepana*, *Pachana*.

INTRODUCTION

“अहं वैश्वानरो भूत्वा प्राणिनां देहमाश्रितः ।

प्राणापान संयुक्तं पचामि अन्नं चतुर्विधम् ॥^[1]”

Lord Krishna defines the importance of *agni* by saying- having become the fire *Vaisvanara*, I abide in the body of living beings and, associated with the *Prana* and *Apana*, digest the fourfold food.

“ अङ्गयन्ति अग्र्यं जन्म प्रापयन्ति इति ”^[2]

According to Shabdakalpadruma, *Agni* is foremost, which controls our body and responsible for the *janma*. *Agni* in context of functioning of a living organism, which maintains its integrity and performs its vital activities by converting the food consumed not only into its various structural and functional constituents but also to provide *Shakti* or energy necessary for proceeding with its innumerable vital activities.

If the *agni* is not proper in functioning, it will ultimately results in formation of *ama* i.e. undigested or half digested un-metabolised food product circulates in the body as toxins. Ayurveda has named such toxins “*Ama*”. *Ama* is a Sanskrit word which literally means undigested or uncooked.^[3]

“उष्मणोल्पबलत्वेन धतुमान्द्र्यं अपाचितम् ।

दुष्टमामाशयगतं रसमामं प्रचक्षते ॥”^[4]

Formation of *ama* is influenced by mainly hypo functioning of *agni* or *manda agni*. *Manda agni* is unable to digest food properly and thus the unripened, uncooked, immature and indigested substance is formed which is known as *ama*.

The *ama* which formed as a result of *manda agni* manifests various symptoms in the body which are described in Ashtanga Hridaya by *Acharya Vagbhata* as under.

“ स्रोतोरोधः बलभ्रंश गौरवानिल मूढता ।

आलस्यापक्तिनिष्ठीव मलसङ्ग अरुचि क्लमः ॥”^[5]

Symptoms includes obstruction in microchannels, loss of energy, heaviness, flatulence, laziness, indigestion, hypersalivation, constipation, anorexia, depression.

In modern correlation, *ama* can be correlated with free radicals because *ama* is the main cause of any disease, in the same way, free radicals are also found to be the root cause of many diseases.

What is a Free Radical ?^[6]

A free radical is an atom or molecule that contains one or more unpaired electrons and discontended with such a conformation, it will try to seek stability either by donating its electron to other molecule or acquiring an extra electron from adjacent from adjacent molecules. Thus, free radicals are highly reactive. Generally, free radicals attack the nearest stable molecule, 'stealing' its electron. When the attached molecule loses its electron, it becomes a free radical itself and thus begins a chain reaction. Once this process is started, it can cascade, finally resulting in the disruption of a living cell. Free radical damage may involve any cellular content . These include Mitochondria, Lysosome, ER etc. Free radical damage culminates in cross-linkages, denaturation and inactivation.

Deleterious Activities of Free Radicals^[7]

1. Damage to cell membrane – cytotoxic and mutagenic effect.
2. Damage to DNA – cell mutations, cancer initiation and promotion.
3. Damage to CVS – oxidative stress leads to atherosclerosis, hypertension, Cardiac hypertrophy, CHF.
4. Damage to Brain – oxidative stress leads to Memory loss, Parkinson's disease, Alzheimer's disease.
5. Damage to Pulmonary system – COPD.
6. Damage to Endoskeleton system - Rheumatoid Arthritis.
7. Damage to Kidneys – CRF, uremia, Glomerulonephritis.

Charaka also has described some clinical characters i.e. improper digestion of food, excessive salivations, constipation, pain, burning sensation, anorexia and heaviness. *Sama mala* and *Nirama mala* characteristic features are also described in Charaka samhita.^[8]

Free radicals can be co-related with *Ama* in Ayurveda on the basis of certain similarities as Under.^[9]

1. Free radical if causes damage to cell membrane leads to putrefaction as well as foul smell formation. “*DOURGHANDAM*” is one of the property of *ama*.

2. Free radicals are in assimilable to body components and exists in free state. *Ama* also remains in assimilable state and hence termed “ASAMYUKTAM”.
3. Though *ama* remains in the body as ‘*Asamyuktam*’, but due to its properties like “BAHUPICCHILAM”, it sticks to normal healthy body tissues very quickly; similar is the case with free radicals.
4. Free radicals exists in an incomplete metabolic state which is also the state of *Ama* described as “AVIPAKAM”.

Role of *Deepana- Pachana* In Panchkarma

Panchkarma is the composite nomenclature of five kind of treatments designed for biopurification of body. Panchkarma is essentially the therapeutic technology of *Samshodhana*. Classical texts have described Panchkarma therapy into three main karmas as *Purva karma*, *Pradhana karma* and *Paschata karma*. The first and foremost *karma* done in every Panchkarma therapy is *Purva karma*.

What Is the Need of *Purva Karma* ?^[10]

1. It promotes *Agni*, the biofire.
2. It exhausts *Ama*, the morbid *dosha* in situ.
3. It mobilize the *dosha* from *shakha* to *koshtha*.
4. It softens the body parts and renders the cells and tissues more washable.

Importance of *Purva Karma*

“स्निग्धात् पात्रात् यथा तोयं अयत्नेन प्रणुद्यते ।

कफादयः प्रणुद्यन्ते स्निग्धात् देहात् तथौषधैः” ॥^[11]

As in a vessel smeared with oil, water falls down without sticking to the vessel, similarly *kapha* and other morbid *doshas* are expelled out easily in a body which has undergone oleation therapy.

Purva Karma Causes^[12]

1. Exhaustion of toxins by *Langhana*, *Deepana* and *Pachana*.
2. *Snehana*, *Svedana* and *Abhyanga*.
3. Drastic expulsion by major *karmas* like emesis, purgation, enema, *nasya* etc.

Deepana

“ पचेत् न आमं वह्निकृत् च दीपनं ”^[13]

The drug that kindles the *Agni* but does not digests the *ama* is called *deepana*. According to Hemadri, *deepana karma* helps in separation of *dosha* from *dhatu*.^[14]

Pachana

“ पचत्यामं न वह्निम् च कुर्यात् यत् तद्धि पाचनं ”^[15]

Pachana drugs does the digestion of *ama* but not increase the *agni*. *Pachana karma* is for the digestion of *ama* and detachment of morbid *dosha* from the *dushya* and *srotasa*.^[16]

Before any main procedure of purification, there is a need to prepare the body. So that the body can be properly detoxified and the best results can be achieved. This is done by *karmas* like *Deepana* and *pachana*. These are basically meant for ‘*Niramikaran*’ (removal of *ama*).

Mode of Action of Deepana Dravya^[17]

Deepana dravyas act in the following way in kindling the digestive fire.

1. Stimulation of Vagus nerve.
2. Stimulation of glossopharyngeal nerve.
3. Stimulation of fundus and pylorus.

The *deepana dravyas* due to bitter in taste promotes gastric juice and facilitate digestion. These drugs sensitize oral taste receptors and thus facilitating saliva secretion. They also induce gastrin secretion, a hormone which stimulates hydrochloric acid secretion.^[18]

Mode Of Action Of Pachana Dravyas^[19]

1. Stimulation of Vagus nerve which in turn secretes gastric juice.
2. Stimulates duodenum which leads to secretion of digestive enzymes & hormones.
3. Stimulates liver to secrete bile.
4. Stimulates pancreas to secrete pancreatic juice.

Guna Dharma Of Deepana And Pachana Dravyas^[20]

Deepana and *pachana* being *Langhana chikitsa* has the predominance of *laghu guna* along with *ushna*, *tikshna*, *vishada*, *ruksha*, *sukshma*, *khara*, *sara*, *kathina*. The predominant

mahabhuta in *Deepana dravyas* is *agni* and *Pachana* has the addition of *vayu mahabhuta* along with *agni mahabhuta*. *Agni mahabhuta* possess the *guna* like *ushna*, *teekshna*, *laghu*, etc. and *vayu mahabhuta* possess the *gunas* like *laghu*, *sheeta*, *ruksha*. Thus due to these properties, these drugs helps in bringing *sama dosha* to *nirama* state.

CONCLUSION

Agni is foremost among that which controls our body and responsible for the *janma*. Dietic indiscretions and emotional stress may, between them, impairs the effective functioning of the neuro humoral mechanisms responsible for ensuring proper secretion of digestive juices, the disturbances of pH in gastrointestinal environment & more often hyper motility of stomach & intestine. This all further leads to fermentation (*shukta paka*), the production of foul odour (*durgandhata*) & extreme pastiness (*bahu pichchilatva*). *Deepana* and *pachana dravyas* plays an important role in bringing *sama* to *nirama* state. Thus *deepana pachana* are highly efficient as *purva karma* in *samsodhana karma*.

REFERENCES

1. Vedvyasa, Shrimad Bhaagvat geeta, Geetapress, 41th edition, Gorakhpur, Samvat 2045, Chapter 15 verse 14, p.331.
2. Docslide.net,[homepage on internet].Jan 13,2017 [cited 2018 jan 03] available from <https://docslide.net/health-medicine/concept-of-agni-ama-seminar.html>.
3. everydayayurveda.org,[homepage on internet].[cited 2018 jan 05] available from <http://everydayayurveda.org/agni-ama/>
4. Vagbhata, Ashtanga Hridayam edited by Kaviraj Atridev Gupta,Chaukhamba Prakashan, Sutra sthana, Doshopkramaniya Adhyaya, chapter 13 Verse 25. Edition: Reprint. Varanasi.p.132.
5. Vagbhata, Ashtanga Hridayam edited by Kaviraj Atridev Gupta,Chaukhamba Prakashan, Sutra sthana, Doshopkramaniya Adhyaya, chapter 13 Verse 23.Edition: Reprint, Varanasi.p.132.
6. researchgate.net,[homepage on internet].Jan 2009 [cited 2018 jan 03] available from https://www.researchgate.net/publication/202640442_UNDERSTANDING_THE_FREE_RADICAL_IN_AYURVEDA.
7. ncbi.nlm.nih.gov,[homepage on internet]. 2008 Jun; 4(2): 89–96. [cited 2018 jan 03] available from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3614697/>.

8. Agnivesha, Charaka, Dridhabala (2007) Charaka Samhita with Ayurveda Dipika commentary, Chikitsa Sthana, Grahani Chikitsa Adhyaya, 15/73, edited by Vaidya Jadavaji Trikamji Aacharya, Chaukhamba Prakashan, Varanasi, India, 518.
9. Rohit Ranjan, Sanjay Srivastava. Correlation of Concept of Ama and Free Radical Theory. *Int. J. Ayur. Pharma Research*, 2014; 2(2): 9-13.
10. slideshare.net,[homepage on internet]. May 30, 2013 [cited 2018 jan 05] available from <https://www.slideshare.net/BodduArunkumar/panchakarma-therapy-drrhsingh>
11. Charaka Samhita, Savimarsh Vidyotani hindi Commentary by Kashinath Shastri evam Gorakhnath Chaturvedi,2, Siddhi Sthana Chapter 6, Verse 11,Reprinted, Varanasi; Chaukhamba Bharati Academy, 2016; 1020.
12. slideshare.net,[homepage on internet]. May 30, 2013 [cited 2018 jan 05] available from <https://www.slideshare.net/BodduArunkumar/panchakarma-therapy-drrhsingh>.
13. Sharngadhar, Sharngdhar Samhita with Jiwanprada hindi Commentary by Dr. Smt. Shaileja Srivastava, Edition:Reprint, Chapter 4 verse 1,Varanasi,Chaukhambha Orientalia 2011,p.30
14. Dr. V. C. Patil, Principles and Practice of Panchakarma, Edition : Reprint, 2016, Chapter 7, p.61.
15. Sharngadhar, Sharngdhar Samhita with Jiwanprada hindi Commentary by Dr. Smt. Shaileja Srivastava, Edition:Reprint,Poorva khand, Chapter 4 verse 2, Varanasi, Chaukhambha Orientalia, 2011; 30.
16. Dr.V.C.Patil, Principles and Practice of Panchakarma, Edition:Reprint 2016, Chapter13,p.62.
17. Dr.V.C.Patil,Principles and Practice of Panchakarma, Edition:Reprint 2016, Chapter7,p.62.
18. Francesco Capasso, Phytotherapy: A Quick Reference to Herbal Medicine,Chapter 21,p 265, e book preview available from <https://books.google.co.in/books?isbn=3540000526>.
19. Dr. V. C. Patil, Principles and Practice of Panchakarma, Edition : Reprint 2016, Chapter 7,p.415.
20. Bhavya BS, Pampanna Gouda H. A Literary Review on concepts of Deepana and Pachana. *J of Ayurveda and Hol Med (JAHM)*, 2014; 2(7): 21-24.