

**Role of Kalavat Bhojan For Longevity of Life Through Delayed Aging****Kiran Sharma¹, Anupam Pathak¹ and Karan Chugh²**²PGT, ¹Department of Swasthavritta & Yoga, Sri Ganganagar College of Ayurvedic Science & Hospital, Tantia University, Sri Ganganagar, Rajasthan**Abstract**

Aging is the natural process and characterised by wrinkles, gray hairs, slightly stooped posture etc. In present era due to busy and faulty lifestyle, signs of aging appear earlier. In Shabdikalpdrum the word Saundarya is defined as properly constructed and well defined body parts, which cannot be achieved without proper function of Agni. Proper function of Dosha and Dhatu primarily depends upon Agni, and as per Acharya Charak Agni is in the form of Pitta in our body. Prabha and Varna is the function of Avikrit Pitta and Agni. To keep Agni appropriately, timely intake of food is mandatory. In Charak Samhita, Ahara is considered as a fuel for Agni. In Ayurveda classic, emphasis is more on the food principles among which preference had been given to Kalavat and Matravat bhojana. Present literary study is aimed to justify the relationship between Agni and establish the process of senility. For this purpose all Brihadtrayi and Laghutrayi of Ayurveda were referred and articles concerned with intermittent fasting published in index journals were collected. In this study my primary focus is on Kalavat bhojan and Agni. In this presentation focus will be given to Kalavat bhojan and intermittent fasting and its relation with the aging process.

Key Word- Kalavat bhojana, Intermittent fast, Saundrya, Prabha.**Corresponding Author:- Kiran Sharma**, Department of Swasthavritta & Yoga, Sri Ganganagar College of Ayurvedic Science & Hospital, Tantia University, Rajasthan. Email I.D: kiransharma10474@gmail.com**Received – 13/08/2021****Revised- 16/9/2021****Accepted – 25/09/2021****INTRODUCTION**

Ageing is the process of becoming older. It represents the accumulation of changes in a human being overtime, encompassing physical, psychological and

social changes. It is a process that is genetically determined and environmental modulated. Though it is a natural process but it appears earlier than expecting due to some contributory factors. Lifestyle, diet,

sleep pattern, exercise, healthy foods are the some contributory factors which effect the aging process. Aging is characterized by wrinkled skin, grey hairs, slightly stooped posture, forget full ness etc. in Ayurveda Jara can be correlated with ageing. Meaning of the word Jara means decrepitude infirmity and general debility consequent on the old age. The word Jara can be used as the meaning of digestion. Prevention and management of Jara were always on prime consideration since ancient time that's why in Charak Samhita Chikitsa Sthana is started with Rasayana Adhyaya. In Shabdakalpadruma the word Saundrya is defined as properly constructed and well defined body part. Saundrya is the Sanskrit word and appropriate English word for Saundrya is beauty. According to oxford dictionary, beauty is "a combination of qualities, such as shape, colour, or form that pleases the aesthetic senses especially the sight. Because skin is the mirror of internal metabolism, all changes of aging appeared first on skin. While considering about prevention of early ageing, basic principal of Dosh Agni and Ahara cannot be excluded. Ahara is the one Sthambha among trayopsthambha1 (three pillars of body).Food keeps human being healthy and also can be cause of illness. So that there is many basic rules for Ahara

consuming described in Ayurveda literature, Kalavat bhojan is one among them. Kala is the basic constituent of matter responsible for creation, existence and destruction of the whole universe.²Kalavat bhojana plays important role in keeping Agni in proper state. In Ashtang hridaya mandagni is the cause of all disease³. Today's lifestyle consists so many irragularities. Hense it is important to study the role of Kalavat bhojan in prevention of early aging.

Aim:

This study is aimed to justify the relationship between Agni and establish the process of senility.

Objective:

1. To understand the importance of Kalvat bhojan in prevention of early aging.
2. To understand the more topics related with Kalvat bhojan in different samhitas, such as vishmashan, Anshan etc.
3. To understand the good and bad effect of modern concept of Kalvat bhojan w.s.r. to intermittent fasting and meal skipping.

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MATERIAL AND METHOD:

For achieving above said aims and objective all Vrihadtrayi and Laghutrayi Samhitas of Ayurveda has been referred and articles related to intermittent fasting, time meal and meal skipping of different index journals has been review.

Discussion:

The word Kalvat bhojan means –

1. Timely consumed meal
2. Meal having the quality which has been written in different season in Ritucharya.

Two types of meal timing has been described in Sushruta Samhita

Ek kala bhojan⁴ – In Hemant and Shishir Ritu when nights are long and days are short a person should have meal in morning time in Sapada yama that means if sun rise will be considered at 6 am. Then one should have meal at 9.45 to 10.30 am.

In Grishma and Varsha Ritu when there is days are long and nights are short a person should have meal in Apranha kala (early evening).in Dalhhan Teeka the word Ardh triteeyama has been used for this Kala that means 2 ½ prahar. For example if sun rises at 6 am morning than a person should have meal at 4.30 pm.

When both days and nights are equal a person should have meal at Madhyanha Kala that means if sun rises at 6 am. Morning then meal should be taken at 12 pm.

Dwikala bhojan⁵: In Dwikala bhojan 1st meal should be taken at 11/4 Prahara that means 9.45 to 10.30 am. And second meal should be taken at 31/2 Prahara that means 4.30 pm. If sun rise time is 6am.

Dwikala bhojan has been mentioned by Bhavpraksh too. Acharya Bhavprakash has clearly mentioned that a person should take meal in morning and evening and nothing should be taken in between two meals.

Trikala bhojan⁶ : Trikala bhojan also mentioned by Bhavprakash in such a way that meal should not be taken in between 1Yama and meal should not be skiped after 2 Yama. In Ratricharya,1st and last Yama of Ratri is indicated for Veadabhyas and middle 2 Yama is for sleep. There is 3 hours in 1Yama.so if sun rises in 6am morning then 1st meal should be taken between

There for if sun rises at 6 am. First meal should be taken between 9.45 am to 10.30 am. 2nd meal should be taken between 1.30 pm to 2.45 pm and third meal should be taken between 5.30pm to 6.45 pm.⁷. In Ashtang sangarah Sutra Sthan 11 it is mentioned that Ahara and aushadh take at least 4 yama to get digest. As per my opinion Trikala Ahara has been mentioned in Samhitas for Deeptagni and hardworking person. A person having

moderate physical work should always Take Dwikala Ahara.

<i>Ek kala bhojan</i>	<i>Hemant and Shishir Ritu</i>	<i>Pratah kala</i>	9.45 to 10.30 am
	<i>Grishma And Pravrita Ritu</i>	<i>Apranha kala</i>	1.30 pm
	<i>Sharad and Vasant Ritu</i>	<i>Madhyanha kala</i>	12pm
<i>Dwikala bhojan</i>	<i>Pratham Bhojan</i>	9.45 to 10.30 Am.	
	<i>Dwitiya Bhojan</i>	After 4.30	
<i>Triakala bhojan</i>	<i>Pratham Bhojan</i>	Between 9.45 to 10.30 am.	
	<i>Dwitiya Bhojan</i>	Between 1.30 pm to 2.45 pm.	
	<i>Tritiya Bhojan</i>	Between 5.30 to 6.45pm	

Meal should not be taken in midnight due to predominance of tamaguna, but in vrindamadhav it is mentioned that food can be taken in midnight only there is excessive hunger. Bhavaprakash it is said that hunger occurs when all doshas get digested⁸.

Benefits of Kalavat Bhojan

Ayurveda Review: In Charak Samhita Sutra Sthana it mentioned that properly consumed food plays a role as samidha for antragni and strength, health age, and prana all depends upon agni and person consuming Hitahara can live for 100 yrs⁹. In Sutra Sthan 25 it is said that Kalavat bhojana is the best for health¹⁰. In Sutra Sthan¹² it is mentioned that all good and bad karma of pitta is depend upon the proper state of agni¹¹. Good complexion

(varna) lusture (prabha) is also one of the karma of prakrit pitta.

Morden Reviwe¹²: There is so many articles published on the topic of Intermittent fasting on different journals. Intermittent fasting or Intermittent energy restriction is an umbrella term for various meal timing schedules that cycle between voluntary fasting or reduce calories intake and non-fasting over a given period. Three methods of intermittent fasting are alternate day fasting, periodic fasting and time restricted feeding. It may be similar to calorie restricted diet. An article published on Molecular cell on 2018, where it is concluded that intermittent fasting can delays the aging of our arteris that could help prevent age related chronic diseases such as cancer, cardiovascular disease, and Alzheimer's.

The most important part of aging is vascular aging. When people become older, the vessels that supply different arteries become sensitive and more subject to aging damage. In fasting or calorie restricted state, the body produces β -hydroxybutyrate (β -HB) which is a ketone that is produced by the liver and used as an energy source when glucose is not available. It prevents vascular senescence via cell quiescence and alleviates aging-related neurodegeneration. It promotes vascular cell quiescence, which significantly inhibits both stress-induced premature senescence. In this study, heterogeneous nuclear ribonucleoprotein A1 is identified as a direct binding target of β -HB. When β -HB attaches to the hnRNP A1, it boosts the activity of a stem cell transcriptional factor called Octamer-binding transcriptional factor 4 (Oct4) mRNA. Oct4 increases Lamin B1, a key factor against DNA damage-induced senescence, which keeps the blood vessels young.

Some more responsible pathways are discussed in different articles and are shown¹³ -

1. Cell proliferation : IGF-1 and mTOR
2. Inflammation : NF - κ B
3. Mitochondrial physiology : AMPK/SIRT
4. Autophagy : FoxO
5. Antioxidants : Nrf2

1. **Cell proliferation** : IGF-1 and mTOR are nutrient sensors and responsible for cell proliferation. They regulate cellular resources depending on the availability of calories. In fasting, low calorie leads to down regulation of IGF-1 and mTOR which signals for the cells and organelles to be recycled and repurposed.
2. **Inflammation** : fasting inhibits NF- κ B which exerts an anti-inflammatory effect. NF- κ B is a master regulator of inflammation, so reducing its activity downregulates many parts of proinflammatory signaling.
3. **Mitochondrial physiology**: Aging decreases the destruction of damaged/dysfunctional mitochondria and the generation of new mitochondria. Calorie restriction supports both of these processes by AMPK and the Sirtuin pathway, resulting in high quality mitochondrial function. AMPK or Activated protein kinase is a central regulator of cellular homeostasis. AMPK is activated in some stresses like depleted ATP levels, low calorie, hypoxia, ischemia etc. It promotes signaling pathways that generate more ATP by fatty acid oxidation and autophagy. It promotes glucose uptake and utilization, fatty acid oxidation and autophagy. It inhibits glycogen

synthesis, fatty acid synthesis. Protein synthesis, cholesterol synthesis.

4. **Autophagy** : Autophagy is the cleaning mechanism where old cell membranes, organelle, and other cellular junks are removed, that has accumulated over time and may alter the cellular performance. mTOR induces the activation of forkhead box protein (FoxO) FoxO proteins are a member of transcriptional factor have important role in metabolism, cellular proliferation, stress resistance and apoptosis.
5. **Antioxidants** : The more human become older, reactive oxygen species (ROS) increases and our natural antioxidant defence decreases. This imbalance becomes greater over time. ROS are involved in some signalling process so right balance of ROS and antioxidant is essential. Calorie restriction activates nuclear factor like 2 (Nrf2) which is a regulator of cellular resistance to oxidants.

CONCLUSION

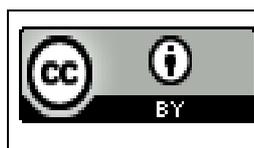
After going through all Ayurveda text and modern articles of intermittent fasting it can be concluded that Kalavat bhojan plays a key role to maintain agni in right state¹⁴. Modern articles also show that right metabolism is the key factor for prevention of aging signs and age related

disease. In Ayurveda it is clearly mentioned that langhan first digests apakva anna then Dosha then Dhatus¹⁵. This statement can be directly correlated with Autophagy. In Ayurveda Mandagni is said to be responsible for all disease, Ahara is considered as fuel of Agni and health, Ayu. Prana, Lusture, Complexion all depends upon Agni. Kalavat bhojan is one of important tools for keeping Agni in right state. It is said that "A graceful and healthy old age is the childhood of immortality."

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