Observational study of Amla Sheet Food Craving in Anaemic Patients

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ABSTRACT –

Ayurveda is an ancient science of healthy and happy living and applies their knowledge for the wellbeing of humanity. Today it is observed that when there is a change in the season, humans change their dietary pattern and lifestyle. Nature also binds them to change their lifestyle. It is also observed that according to various seasons our *Aahara* and *Vihara* undergo a change. In the early stage, body tries to compensate *this* stage by demanding a particular food and drink of specific *Rasa, Guna, Virya and Vipaka*. viz in case of *Vata Vriddhi*, body demands for *Ushna* and in state of *Pitta Vriddhi* body demands for *Sheet Aahara* and *Vihara*. *Rakta* is one of the most important *Dhatu* of our body, the status of other *Dhatu* depends on this .When *Rakta Dhatu,* gets deminute in the body initially body tries to compensate this condition by showing *Amla sheet Prarthana*. In the *Sushrut Samhita*, it was quoted that in *kshaya* stage body demands for particular type of food if we fulfill that demand then the *Dhatu* comes in normal state. Therefore, the aim is to study whether individual having *Rakta kshaya* has craving for *Amlasheet Dravya*. This observational study was carried out on 76 anaemic patients attending OPD and IPD of Government Ayurved College hospital Nagpur. Anaemic patients were further assessed with LAM (Labeled affective magnitude scale) to study up to which extent *Amla Sheet Parthana* were present. In this study out of 76 patients 50% like *Amla Sheet* food in direct questioning while 59.21% like *Amla* and *Sheet* food by LAM. The mean of both question result was 54.61%.From observational data it was concluded that *Amla Sheet Rasa* crav*ing* was present in most of the anaemic patients

Key Words- *Rakta Dhatu, Amla Sheet,* Craving, LAM Scale,

INTRODUCTION

Ayurveda is a science of life it appears to be a compilation of reflections and interpretation of observations for decades in the life of philosophers at that time. These observations made by keen observers and trained vaidya themselves that how animals and human changes their behavior, eating habits in healthy as well as in diseased condition. We can observe that animals also choose their own medication by consuming some special herbs according to their body demand. Similarly in human also when there is a change in the seasons; they change their dietary pattern and life style. In case of Diabetes Mellitus the patient has craving for sweet foodstuffs, here one can say that, though there is condition of hyperglycemia in D.M., due to

deficiency of insulin there is a lack of glucose inside the cell. Nature also binds them to change their lifestyle. It is observed that according to various seasons human changes their *Aahar* and *Vihar* according to nature (*Visarga Kala*) *In visarga kala Jatharagni* increases and required more food in quantity as well as quality (*Matravat* and *Swabhavvata*).In *Aadankala Jatharagni* decreases (1).These are some examples of physiological changes in body. Pathological conditions are due to *Dhatu Vaishamya* (2).In early stage body tries to compensate this stage by demanding a particular food and drink of specific *Rasa, Guna, Virya* and *Vipaka.*

In case of *Vata Vridhhi* body demands for *Ushna Rasatmak Aahar* and *Vihara* and in *Pitta Vriddhi* body demands for *Sheet Rasatmak Aahar* and *Vihara* (3). If these changes are corrected in initial stage then disease progression will reverse back. Actually, craving is not that the body actually needs the specific food we are craving, but it may need something in that food. Our taste buds just interpret it as a craving for something specific". Under this heading some animal experiments and various different types of food craving has been described. Today due to stress and serendety life style human neglect these changes and land up in disease. Therefore it is very important to become conscious towards these changes.

Dosha Dhatu and *Mala* are root cause of *Shareer* (4). out of these *Rakta Dhatu* is very important because it support as well as nourishes the *Shareer* (5).*Rakta Dhatu* is important one as *Raktam Jiva Iti Stitit* (6)*i*. Like *Vata,Pitta* and *Kapha, Rakta* is a main cause for *Utapatti,Stiti* and *Nasha* of the *Sharir* (7).The main function of *Rakta Dhatu* is *Varnaprasadhana* and *Mamsapushti*. (8).The main sites of Rakta Dhatu formation are Yakrit and Pleeha . (9)When *Rakta Dhatu* diminishes to cause *Rakta Dhatu Kshaya* (anemia).In this condition initially body tries to compensate the condition by showing craving for *Amlasheet* rasa. (10) (11) (12).This conditions was proved in *Garbhiniavasta* by showing demand for *Amla Rasa* in second trimester due to *Raktalpata (anaemia)* .In Sushruta Samhita it was quoted that in *Kshyaya Avasta* body demands for particular type of food if we fulfilled that demand then *dhatu* comes in normal stage. Upto certain extent *Rakta kshaya* can be correlated with anemia. Few Ayurvedic experts correlate anemia with *Pandu*. But *Pandu* cannot correlate with anemia because *Pandu* is a disease and Anemia is a hemoglobin deficient condition. In *Pandu* there is diminutation of *Rakta* as well as *Meda Dhatu* and its patho - physiology is different from anemia. Introduction about anemia, its various classifications like based on patho-phsiology and based on mean corpuscular value or morphology studied under this heading. In medical science literature, it was found that there is craving for ice, chips and lettuce in iron deficiency anemia. This present study is aimed to find craving of *Amla Sheet Rasa* in Anaemic patients.

AIM

1. To study craving for *Amla Sheet Rasa* in Anaemic patients

MATERIAL AND METHOD

This present study was carried out on Anaemic patients attending OPD and IPD of Government Ayurved College hospital Nagpur. Total 76 patients fulfilling inclusion and exclusion criteria were selected for this study.76 patients having anemia were further assess with LAM (Labeled affective magnitude scale) to study up to which extent *Amla Sheet Parthana* were present.

Inclusion Criteria

1. Age 16-45 yrs
2. Patient having Hb 8-10gm %

Exclusion Criteria

1. Pregnant and lactating women

2. Having chronic and systemic diseases like renal disease, thyroid disorders
3. Hb less than 8gm%

Labeled affective magnitude scale (LAM)

It is one of the subjective tests used in sensory evaluation. This rating scale method measured the level of liking of food, or any other product where affective tone is necessary .This test relies on people's ability to communicate their feeling of liking or dislike. Labeled affective magnitude scale (LAM) is popular because it may use with untrained people as well as with experienced panel member .The Minimum amount of verbal ability is necessary for reliable results. In this test subject is told to decide how much he like or dislike the product and mark scale accordingly, The nature of this test is relative simplicity than other subjective and objective parameter. The subject is allowed, however to make his own inference about the meaning of scale categories and determine for himself how he or she will apply them. A separate scale provided for each sample in test session. Labeled affective magnitude scale (LAM) is anchored verbally with eleven different categories ranging from greatest imaginable like to greatest imaginable dislike .The phrases are placed on line graphic scale either horizontally or vertically .The Rating are also converted into score and treated by rank analysis or analysis of variance.

OBSERVATIONS

Table No 1 Showing Age Wise Distributions Of 76 Patients of *Rakta kshaya*

S. No	Age(*In years*)	Frequency	Percent	Cum Percent	
1	16 – 20	05	06.58%	06.58%	
2	20 - 24	35	46.05%	52.63%	
3	24 – 28	18	23.68%	76.31%	
4	28 - 32	02	02.63%	78.94%	
5	32 – 36	07	09.21%	88.15%	
6	36 - 40	03	03.95	92.21%	
7	40 - 44	06	07.89%	100.0%	
	Total	76	100.0%	100.0%	

Age: - The Table 1 shows that 46.05% patients were belonging to 20 – 24 years age group , 23.68% were in 24 – 28 years ,9.21% were in 32 – 36 years ,7.89% were in 40 – 44 years , 6.58% in 16 -20 years , 3.95% in 36 – 40 years and only 2.63% patients belongs to 28 – 32 years age group

Table No 2 Showing Sex Wise Distributions Of 76 Patients Of *Rakta Kshaya*

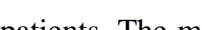| S.No	Sex	Frequency	Percent	Cum Percent	
1	Female	64	84.2%	84.2%	
2	Male	12	15.8%	100.0%	
	Total	76	100.0%	100.0%	

Sex: In this series, maximum numbers of Patients i.e. 84.2 % were Female while rests of the Patients i.e. 15.8 % were male.

Table No 3. Showing Diet pattern wise distributions of 76 pts. of *Rakta kshaya*

S.No	Diet	Frequency	Percent	Cum Percent	
1	Mixed	26	34.2%	34.2%	
2	Non-Veg	02	02.6%	36.8%	
3	Vegetarian	48	63.2%	100.0%	
	Total	76	100.0%	100.0%	

Diet: The Table No 3.1.8 shows that maximum Rakta kshaya patients belong to vegetarian diet i.e. 63.2 %followed by 34.2 % were of mixed diet that means vegetarian and non vegetarian diet and only 2.6 % Rakta kshaya patients were non vegetarian that means they ate non veg more than three times in a week.

Table No 4. Showing Addiction Wise Distributions Of 76 Patients Of *Rakta Kshaya*

S.No	Addiction	Frequency	Percent	Cum Percent	
1	Alcohol	02	02.6%	02.6%	
2	Coffee	04	05.3%	07.9%	
3	No	30	39.5%	47.4%	
4	Smoking	03	03.9%	51.3%	
5	Tobacco	02	02.6%	53.9%	
6	Tea	34	44.7%	98.6%	
7	Tea/coffee	01	01.3%	100.0%	
	Total	76	100.0%	100.0%	

Addiction: The above Table 3.1.9 shows addiction wise distribution of patients. The maximum percentage of patients i.e. 44.7% has addiction of tea .39.5% were nonaddicting , 5.3% was addict of coffee ,3.9% were smokers, 2.6% were alcoholic, 2.6% were fond of tobacco chewing and 1.3% were addict of tea and coffee

Table No 5. Showing *Prakruti* Wise Distributions Of 76 Patients Of *Rakta Kshaya*

S.No	Prakruti	Frequency	Percent	Cum Percent	
1	KP	06	07.9%	07.9%	
2	KV	05	06.6%	14.5%	
3	PK	13	17.1%	31.6%	
4	PV	07	09.2%	40.8%	
5	VK	13	17.1%	57.9%	
6	VP	32	42.1%	100.0%	
	Total	76	100.0%	100.0%	

Note – V – *Vata*, P – *Pitta* and K – *Kapha*

Sharir Prakruti: The Table 5 highlights that maximum i.e. 42.1 % patients were belonging to *Vata Pitta Prakruti*, 17.1 % patients belongs to *Vata Kapha Prakruti* and 17.1% were of *Pitta Kapha Prakruti*, 9.2 % patients were *Pitta Kapha*, 7.9 % patients were *Kapha Pitta* and only 6.6 % patients were *Kapha Vata Prakruti*.

Table No 6. Showing Extents Of Amla *Rasa Prarthana* Wise Distributions Of 76 Patients Of *Rakta Kshaya*

S.No	Extent of *Amla*	Frequency	Percent	Cum Percent	
1	1	4	5.3%	5.3%	
2	2	9	11.8%	17.1%	
3	3	18	23.7%	40.8%	
4	4	11	14.5%	55.3%	
5	5	17	22.4%	77.6%	
6	6	10	13.2%	90.8%	
7	7	4	5.3%	96.1%	
8	8	2	2.6%	98.7%	
9	10	1	1.3%	100.0%	
	Total	76	100.0%	100.0%	

NOTE: 1- Greatest imaginable like, 2- Like extremely ,3- Like very much , 4- Like moderately, 5- Like slightly, 6- Neither like nor dislike, 7-Dislike slightly 8- Dislike moderately, 9- Dislike very much, 10- Dislike extremely, 11- Greatest imaginable dislike.

Extent of *Amla Rasa* Liking or Disliking: It was assessed by "Labeled affective magnitude scale (LAM)". In the study of 76 patients of *Rakta kshaya* maximum 23.7 % replied that they like *Amla Rasa* very much, 22.4 % like slightly, 14.5 % patients like *Amla Rasa* moderately, 13.2 % patients replied that they neither like nor dislike *Amla Rasa*, 11.8 % patients like *Amla Rasa* very much.5.3% patients dislike *Amla Rasa* slightly, 2.6 % patients dislike *Amla Rasa* moderately. Only 1.3 % patients that mean only one patient told that he dislike *Amla Rasa* extremely.

Table No 7. Table Showing Extents Of Sheet Prarthana Wise Distributions Of 76 Patients Of *Rakta Kshaya*

S.No	Extent of Cold	Frequency	Percent	Cum Percent	
1	1	3	3.9%	3.9%	
2	2	15	19.7%	23.7%	
3	3	16	21.1%	44.7%	
4	4	20	26.3%	71.1%	
5	5	13	17.1%	88.2%	
6	6	6	7.9%	96.1%	
7	7	2	2.6%	98.7%	
8	8	1	1.3%	100.0%	
	Total	76	100.0%	100.0%	

NOTE: 1- Greatest imaginable like, 2- Like extremely ,3- Like very much , 4- Like moderately, 5- Like slightly, 6- Neither like nor dislike, 7-Dislike slightly 8- Dislike moderately, 9- Dislike very much, 10- Dislike extremely, 11- Greatest imaginable dislike.

Extent of Cold food liking or disliking:

It was also assessed by "Labeled affective magnitude scale (LAM)". In present study, It was found that maximum 26.3 % replied that they like cold foods moderately, 21.1 % like cold foods very much, 19.7 % patients like cold foods extremely, 17.1 % patients replied that they like cold food slightly, 7.9 % patients neither like nor dislike cold foods.3.9 % patients replied that they like cold food up to Greatest imaginable like. They were unable to explain their cold food liking. 2.6% patients dislike cold food slightly. Only 1.3 % patients that mean only one patient told that he dislike cold food moderately.

DISCUSSION

In this study among 76 anemic patients maximum 69.73% were between age Group 20-28 years old this is middle age and *Pitta* dominant age group leads to increases catabolism.84.2% were female this may due to in India malnourishment and menstrual problems are more in females leading to anemia. In study most of the patients were found to be vegetarian i.e. 63.2% vegetarian, 34.2% mixed diet and only 2.6% non-vegetarian .The possible cause behind this has explained previously in context of religion. Vegetarians are at an additional disadvantage because certain foodstuffs that include phytates and phosphates reduce iron absorption by about 50%. When ionizable iron salts are given together with food, the amount of iron absorbed is reduced. When the percentage of iron absorbed from individual food items is compared with the percentage for an equivalent amount of ferrous salt, iron in vegetables is only about one-twentieth as available, egg iron one-eighth, liver iron one-half, and heme iron one-half to two-thirds.

In *Prakriti* wise distribution it found that maximum i.e. 42.1% of patients were having the *Vata – Pitta* Predominant *Prakriti* (Table No. 3.1.10). This seems logical also, as the main *Dosha* involved in the disease are the *Vata* and *Pitta*. These two *Dosha* are responsible for the Catabolism. *Vata* acts as a supporter while *Pitta* is directly responsible for the increased Catabolism in the vitiated state. Thus the *Pitta* dominant diet in the patients with this *Pitta –Vata* dominant *Prakriti* are more susceptible.

In study, it found that maximum percentage of patients have *Mandaagni* (Table No. 3.1.11) i.e. 39.5%. This may be due to *Rakta Kshaya* as well as the effect of the faulty dietary habits.

In this study maximum 61.8% patients like *Amla* and *Amla* predominat *Rasa* in their *aahara* that render the desire for opposite taste .*Madhura, Amla* and *Lavana Rasa* are opposite to *Vata Guna*. This craving for *Amla Rasa* is due to *Vata Vriddhi* and *Agnimandhya* in *Rakta Kshyaya.Madhura Rasa* is *Guru* and *Lavana Rasa Is Rakta dustikar* so these are not suitable in rakta kshaya. The body is best clinician for itself. It always select suitable aahara and vihara.the iron is absorbed from GIT at low ph in acidic media and sour food stuff contains more hydrogen ions. this may be cause of sour food stuff craving in rakta kshyaya.as the criteria for liking of food was subjected to avoid errors in study,direct questions to verify their amla rasa craving was real or not.approx the same result i e 63.1% told that they like *Amla Rasa* in *aahara*. the mean percentage of both type of questions result was 64.45%.

Labeled affective magnitude scale (LAM) used in the assessment of extent of *Amla Prathana*. out of total 76 patient maximum 23.7% has very much craving for *Amla Rasa*,22.4% like slightly,14.5% patients like moderately,13.2% neither like nor dislike *Amla Rasa*.11.8% like *Amla Rasa* very much,5.3% dislike it slightly,2.6% dislikes *Amla Rasa* moderately. Only 1.3% patients that means only 1 patient dislikes *Amla Rasa* extremely

Same strategy used for cold food craving. In this study out of 76 patients 68.4% likes cold. In direct questioning 76.3% like cold food. The mean of both questions result was 72.35%.out of total maximum 26.3% like cold food moderately. 21.1% like it very much,19.7% like it extremlt.17.1% like it slightly.7.9% neither like it,3.9% has greatest imaginable like,2.6% dislike cold food slightly. Only 1.3% patients dislike cold food extremely.

In this study out of 76 patients 50% like *Amla Sheet* food in direct questioning while 59.21% like *Amla* and *Sheet* food by LAM. The mean of both question result was 54.61%.

From the above observation of survey data it is concluded that *Amla Sheet Rasa Prathana* was present in most of the *Rakta Kshaya* patients

Bibliography

1. Agnivesh , Drudbala , Charak. Charak Samhita. In Tripathy B. Tasyashitiyadhyaya. Varanasi: Chaukhamba Surbharati; 2005. p. 149.
2. Agnivesha D, Charak. Sutrasthana. In Tripathy B. Khuddagchatushpadiyadhyaya. Varanasi: Chaukhamba Surbharati Prakashan; 2005. p. 208.
3. Sushruta. Sushruta Samhita. In Shashrtri A. Doshadhatumalakhayavriddhivigyaniyam. Varanasi: Chaukhamba Sanskrit Sanstana; 2005. p. 60.
4. Shushrut. Sushrut Samhita. In Shashtri A. Doshadhatumalakhyayavriddhivigyaniya. Varanasi; 2005. p. 56.
5. Agnivesh , Drudhabala , Charak. Charak Samhita. In Tripathy B. Sutrastana,Vidhishonotadhyaua. Varanasi: Chaukhambha Surbharati Prakashan; 2005. p. 429.
6. Shushrut. Shushrut Samhita. In Shashtri A. Sutrastana,Shonitvarnaniyaadhyaya. Varanasi: Chaukhamba Sanskrit Sanstan; 2005. p. 56.
7. Sushruta. Sushrut Samhita. In Shashtri A. Sutrastana,Vranaprashnaadhyaya. Varanasi: Chaukhamba Sanskrit Sanstana; 2005. p. 85.
8. Sushruta. Sushruta Samhita. In Shashtri A. Sutrastana,Doshadhatumalkshayavriddhivigyaniyaadhyaya. varanasi: Chaukhamba Sanskrtit Sanstana; 2005. p. 56.
9. Agnivesh , Charak , Drudhabala. Charak Samhita. In Tripathy B. Chikitasastan,Raktapittadhyaya. Varanasi: Chaukhamba Sanskrit Acadamy; 2006.
10. Shushruta. Shushrut Samhita. In Shashtri A. Sutrastana,Doshadhatumalvriddhivigyaniya. Varanasi: Chaukhamba Sanskrit Sanstan; 2005. p. 58.
11. Vagbhata. Ashtang Hrudaya. In Paradkar SS. Sutrastana,Doshadivigyaniya. Varanasi: Chaukhamba Surbharati Prakashan; 2002. p. 185.
12. Vagbhata. Ashtang Samgraha. In Murthy KRS. Sutastana,Doshadivigyaniya. Varanasi: Chaukhamba Orientalia; 2000. p. 353.