

PHYSIOLOGICAL HOMEOSTASIS BY DIET- DURING REPRODUCTIVE PERIOD OF WOMAN'S LIFE

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ABSTRACT

A woman's life is marked by unique changes that occur with time, from menarche, preconceptional, antenatal, postnatal, perimenopause, menopause and post menopause. These changes bring various physiological disturbances. The body tries to maintain its homeostasis but this physiological disturbance affects woman's life during these phases of life. Pregnancy and parturition period are physiological phenomena and various changes take place in the body, which should be taken care of. *Ayurveda* has given enormous emphasis on the importance of caring of lady before, during and after pregnancy. Rules about type, form, *rasa* and quality of food have been explained in *samhitas* for lady before conception, during pregnancy (month wise diet schedule) and during postnatal period (day wise diet schedule) i.e. *sutika paricharya*.

Keyword: pregnancy, preconception, *garbhini paricharya*, *sutika paricharya*.

INTRODUCTION

It is the woman who procreates and propagates the human species. Motherhood is the basis of family life which in turn, is the backbone of all the orders of society. To protect family life and society, health of woman and its care is very important. A woman's body faces various transitional phases throughout her life, starting from menarche, conception, pregnancy, postnatal period to her menopausal period. Her body homeostasis gets disturbed every time, which needs some special care and demand during that period and if not cared properly may bring problem, directly or indirectly.

Literature review: Importance of Ahara for formation of Sharir Dhatu, Beeja and Garbha: *Ayurveda* gives importance to the quality of seed. Concept of conception is compared with planting a tree. As for proper growth of a tree right

combination of time, field, nourishment and seed is required, like wise for proper conception *ritu*, *kshetra*, *Ambu* and *beeja* having good quality are required¹. *Garbha* is formed from union of male and female *beeja* (*Shukra* and *Shonit*). For both men and women, health of *shukra dhatu* (reproductive tissue) is responsible for quality of *beeja* and *garbha*².

Preconceptional preparation^{3,4,5}: Keeping the fact in mind that *shudha shukra dhatu* in both partners is responsible for formation of *beeja* having good quality. *Shudha shukra dhatu* forms only after proper nutrition and digestion of food so emphasis has been given on life style and diet of a person planning for pregnancy. A healthy couple, desirous of offspring should initially clean themselves by evacuating measure (i.e. oleation, sudation, emetics, purgative and brought to normal

condition should be given *asthapana* (evacuating enema) and *anuvasan* (nutritive enema) *basti*. After these purifying measures, the man should use *ghrita* and milk medicated with the drug of *madhura virya* (sweet as an anabolic) and the woman, should consume oil and *masa* (black gram).

Maintaining Homeostasis By Ahara During Pregnancy^{6,7,8}: The embryo imbibes nutrients from the uterine environ-

ment and grows without any anomalies with proper management. *Acharyas* says that woman desirous of a healthy child should give up non-congenial diet and mode of life and protect herself by daily good conduct and using congenial diet and mode of life. In an uneventful pregnancy, the routine for antenatal management is summarised in the following table^{9,10}.

Table No.1

Month	Recommended diet
First	Cold milk, nutritious food
Second	Milk cooked with sweet substances
Third	Milk supplemented with <i>ghrita</i> and honey
Fourth	Milk, <i>ghrita</i> as before
Sixth	Milk, <i>ghrita</i> cooked with sweet drug
Seventh	Milk, <i>ghrita</i> cooked with sweet drug
Nine	Rice gruel with <i>ghrita</i> , meat soup with cooked rice.

Diet in post natal period^{11,12,13}: In post natal period woman becomes weak and emaciated, her body tries to get back her homeostasis. Diet and drug advice for *sutika paricharya* (post natal care in *Ayurveda*) helps in this process. During puerperium *vata* is in aggravated phase, doshas and impure blood is still inside the uterus. To maintain homeostasis of body *Acharyas* have described the diet which removes doshas from body and helps to maintain homeostasis of body. Powdered *pippali*, *pipaplimula*, *chavya*, *chitraka*, and *shringabera*, with warm jaggery water should be given. This should be continued for two or three days till the abnormal blood is properly excreted. Afterwards rice gruel prepared with the drugs of *vidarigandhadi* group and mixed with *ghrita* and milk should be given for three days (from third or fourth day to sixth or seventh day) after delivery. Then from 7th or 8th day cooked *shali* rice with meat soup of wild animal prepared with *yava*, *kola*

and *kulatha* should be prescribed considering her strength and digestive process.

DISCUSSION

Ahara being processed by *Jatharagni* and *Rasagni* transforms into *Rasa*, fraction of *Rasa* which is similar to *Rakta*, forms *Rakta* after processing by *Raktagni*, progressive *dhatu*s and their *updhatus* are formed by the same manner after the processing of respective *dhatvagni*. Purification measures before planning for conception help to clear all the *strotasas* (body channels) of body so that final *dhatu* of body i.e. *shukra dhatu* (reproductive tissue) is formed properly and get proper nutrition because any obstruction in channels affects the property of *shukra dhatu* and affect quality of *beeja* (*stri* and *purush*).

Diet used during these periods are rich in carbohydrate, protein and fat and drug having the effect on nutrition of *dhatu*s, increasing the immunity of body, decreasing oxidative stress on body, increasing blood circulation to reproductive organs, preparation of hormonal bal-

ance which is favourable for conception, implantation and growth of foetus.

Modern medical sciences also started to accept that obesity is a main cause of infertility and poor fertility outcome. *Ayurveda* believes that obesity is due to improper functioning of *Agni* and obstruction in channels. Modern physiologist also accepts that obesity as major cause of infertility¹⁴. Women should be well nourished. Metabolic and nutritional disturbances cause physiological stress and have effect on reproductive system. Under-nutrition results in a compromised reproductive function. There are several nutritional stress factors i.e. altered body fat ratio, Weight loss, Nutrient deficiency, Eating disorder. The GnRH (hormone that stimulates Gonads) pulse is very sensitive to stress and metabolic factors i.e. Weight loss, Decreased energy availability, Altered body fat ratio. Decreased GnRH secretion effects pituitary secretion that results in Decreased LH & FSH (ovarian hormone) secretion, Decreased ovarian stimulation, Decreased oestrogen production¹⁵. So purification measures and diet before preconceptional preparation of body is important, it helps to normalise proper functioning of *Agni*, clearance of *strotasas*, proper nutrition and formation of *dhatu*s. Drugs used for the purpose of *prajasthapan* have following effect according to modern research.

Asparagus racemosus- increases cellular vitality and resistance, improves microcirculation, Inhibitory to oxytocin, and improves digestion by increasing the level of amylase.

Euryale ferox - high level radical scavenging activity, lipid per oxidation inhibitory activity

Astracantha longifolia- immunomodulation, haemopoietic activity, tone up the uterine muscle.

Glycyrrhiza glabra- increases progesterone level

During the first trimester, stress is laid on stabilizing the pregnancy and nurturing the uterine bed through *rasa* and *rakta dhatus*. The embryo gets nourishment directly by percolation (*upsnehan*). In the first month, sipping cold milk and maintaining a light diet, *madhu* and *ghrita* are also advised. The use of fat rich frequent diet is very advance concept of *Ayurveda*, because it is proved by the researches that maternal plasma cholesterol is principal precursor (90%) of progesterone biosynthesis. Dr William H Goodson in the San Antonio breast cancer symposium in 2007 stated those dairy products like milk; butter etc contains high level progesterone. He stated that after consumption of 3 high fat rich diet increases spike in salivary progesterone to 30 %-100%.

Concept of use of *jaangal mamsa ras* and *krishna* (contains cereals) is a scientific concept, as both of these (organ meat and cereals) are good source of vitamin B6 thus helping to prevent nausea, vomiting, edema, GDM, pre-eclampsia etc. From the seventh month onwards, there should be less fat, less salt and less water in the diet. Rice with a little *ghrita* is advocated. After the completion of the seventh month, herbs, which are mild diuretics and urinary antiseptics such as *Gokshur* is advocated.

Diet advised during post natal period also helps to maintain homeostasis of body i.e.

Decoction of *Laghupanchmoola* or *Vatahara* plants *Goksuru* (*Tribulis terrestris*), *Kantakari* (*Solanum xanthocarpum*), *Brihati* (*Solanum indicum*), *Saliparni* (*Desmodium gangeticum*) and *Prishaniparni* (*Uraria picta*) these drugs have digestive, anti-inflammatory¹⁶ and antiseptic property. *Goksuru* specially have anti bacterial property (alcohol and aq. Ext.) against *S. aureus* and *E. coli*¹⁷.

So it prevents infection of traumatized tissue during puerperal period. Drugs of *Dashmoola* group are diuretic¹⁸, digestive, appetizer and analgesic¹⁹, resolve body fluid²⁰ and have antispasmodic and rejuvenating properties²¹. They also help to regain bladder tone being nervine tonic²².

Pippali (*Piper longum*), Pippalimoola²³ Chavya (*Piper retrofractum*)²⁴, chitraka (*Plumbago zeylanica*)²⁵, shringabera (*Zinziber officinale*)²⁶ churna with ghrita or hot jaggery is advised Ghrita being *yogvahi* enhances the properties of *Panchkola* by balancing its *ruksha* and *tikshana* properties. *Panchkola* drugs have antipyretic, appetizer, utero-tonic, antibacterial, antifungal and analgesic properties.

Drugs of *Vidarigandhadi gana* like *Vidari* (*Ipomoea digitata*), *Mahabala* (*Sida rhombifolia*), *Nagbala* (*Gravia hirsut*), *Kapikacchu* (*Mucuna pruriens*), *Jivaka* (*Malaxis muscifera*), *Rishbhaka* (*Malaxis acuminata*), *Satavari* (*Asparagus racemosus*), *Goksuru* (*Tribulis terrestris*), *Punarnava* (*Boerhavia diffusa*), *Saliparni* (*Desmodium gangeticum*) etc. are mostly Rasayana. So they have anabolic action, are hepatoprotective, rejuvenating and tonic²⁷. So helps the woman to recover in puerperal period.

Satavari (*Asparagus racemosus*) has proven galactagogue²⁸ and helpful in lactation. *Sariba* (*Hemidesmus indicus*) purifies the milk²⁹.

Liquid diet with soup of *yava* (*Hordeum vulgare*), *kola* (*Zizphus mauritiana*), *kullatha* (*Dolichus biflorus*). Liquid diet and soup of above contents are easily assimilable, quenches thirst, diuretic and demulcent, helpful in convalescence during puerperium. These are diuretics and enhance the excretion of peptones as urea and creatinine in urine. Peptones are liberated in the uterus by autolysis of proto-

plasm due to action of proteolytic enzymes which enter in blood stream

After 12 nights, use of meat soup of wild animals, decoction of *jivaniya*, *brimhaniya*, *madhura* & *vatahara* drugs is advised. Meat is an excellent food source of iron, vitamins, essential amino acids and trace elements³⁰. *Madhura*, *Brihaniya* drugs are anabolic and helpful to recover maternal system from stress and strain of labour. Helps in galactogenesis and enhances the property of maternal milk.

CONCLUSION

Diet plays a vital role in the maintenance of good health and in prevention and cure of disease. In ancient Indian scriptures, food has been compared with god (*Annam Brahman*) since it the main factor, which sustains and nourishes life. In *Bhagvad Geeta*, Lord Krishna has compared himself with the digestive fire, which assimilates and digests all the four types of food in order to maintain the life. As per *Ayurveda*, food affects the mind also by increasing the three qualities of mind i.e. *satva*, *raja* and *tamas*. It is said in *Ayurveda* that if dietetics is followed medicine is not needed and if dietetics is not observed, even medicine is not useful. During preconceptional, pregnancy and post natal period, if a proper selection of food is done according to physiological demand of body, as described in *Ayurveda*, equilibrium between *doshas* and *dhatu*s can be maintained with minimal complication and drug requirement, thus a safe motherhood and healthy progeny can be achieved.

REFERENCES

1. Susruta Samhita. Jadhavji Trikamji, editor. 5th ed. Varanasi; Chaukhamba Orientalia; 1992. Sharirasthana 2/33
2. Charaka Samhita, Shashtri Kashinath, Chaturvedi Gorakhanatha Acharya, editor. 1st

- ed. Varanasi; Choukhabha Bharati Academy; Sharirasthana 2005. 8/17
3. Charaka Samhita, Shashtri Kashinath, Chaturvedi Gorakhanatha Acharya, editor. 1st ed. Varanasi; Choukhabha Bharati Academy; 2005. 8/4, 7
4. Susruta Samhita. Jadhavji Trikamji, editor. 5th ed. Varanasi; Chaukhambha Orientalia; 1992. Sharirasthana 2/28
5. Astanga Sangraha, Vol I. Gupta Atridev, editor. 1st ed. Varanasi: Oriental Publishers; 1993. Sharirasthana 1/54, 57, 63, 64
6. Charaka Samhita, Shashtri Kashinath, Chaturvedi Gorakhanatha Acharya, editor. 1st ed. Varanasi; Choukhabha Bharati Academy; Sharirasthana 2005. 8/21
7. Susruta Samhita. Jadhavji Trikamji, editor. 5th ed. Varanasi; Chaukhambha Orientalia; 1992. Sharirasthana 10/3
8. Astanga Sangraha, Vol I. Gupta Atridev, editor. 1st ed. Varanasi: Oriental Publishers; 1993. Sharirasthana 3/58
9. Charaka Samhita, Shashtri Kashinath, Chaturvedi Gorakhanatha Acharya, editor. 1st ed. Varanasi; Choukhabha Bharati Academy; 2005. Sharirasthana 8/32
10. Susruta Samhita. Jadhavji Trikamji, editor. 5th ed. Varanasi; Chaukhambha Orientalia; 1992. Sharirasthana 10/4
11. Charaka Samhita, Shashtri Kashinath, Chaturvedi Gorakhanatha Acharya, editor. 1st ed. Varanasi; Choukhabha Bharati Academy; 2005. Sharirasthana 8/48
12. Susruta Samhita. Jadhavji Trikamji, editor. 5th ed. Varanasi; Chaukhambha Orientalia; 1992. Sharirasthana 10/16, 18
13. Astanga Sangraha, Vol I. Gupta Atridev, editor. 1st ed. Varanasi: Oriental Publishers; 1993. Sharirasthana 3/58
14. Gesink Law et al, 2007
15. Basanta Henny et al., 2006
16. J-AIM Vol-4 Issue-1 2013; 23-27
17. Int. J. Chem. Sci: 7 (3), 2009, 1867-1872
18. J. Nat. Prod. Plant resour, 2013, 5 (4): 79-88
19. World J of Pharmacy & Pharmaceutical Science 2013; 2 (5): 3118-3136
20. Chopra et al 1992
21. J Ethanopharmacol 2011 June 22; 136 (2): 283-96
22. Indian J of Exp Biology Vol 47, Nov 2009, PP 849-86
23. Chauhan, IJRAP 2011, 2(1) 157-161
24. Khushbu et al APJTB (2012) 51945-51953
25. Sanjana dutta et al IJRPBS Vol 3 (1) Jan-Mar 2012
26. Kathi J. Kemper Nov 3, 1999
27. Subha Rastogi et al EBCAM 2013 ID 3682, p 6
28. IJPB 2011; 2(3): 855-863
29. IJPPR Sep-Nov 2011 Vol-3, Issue 3 (74-79)
30. En.wikipedia.org/wiki/Meat

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