



SCIENTIFIC VALIDATION OF RAJASWALA PARICHARYA

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ABSTRACT

Menstruation is the naturally occurring cleansing process in every woman. The quality of menstruation reflects the reproductive health of a female. In our ayurvedic texts, there are many Paricharyas (mode of living) like Rajaswala, garbhini, sutika etc. described by our acharyas to maintain the health of a woman. The do's & don'ts described for Rajaswala stree is termed as "Rajaswala paricharya" and is ignored in today's era. The co-relation between the modern physiology of menstruating phase and Rajaswala paricharya will emphasize the need to follow the Rajaswala paricharya.^[1] The Rajaswala paricharya helps women to cope up with the physiological & psychological changes that takes place in the body during this period. The foundation of supraja or good progeny lies at the level of the beeja. Ayurveda lays great stress upon Shuddha Beeja and Artava as a basis for supraja. The selection of the dominant follicle happens on the 5th To 7th day of the cycle.^[2] It is therefore very obvious that the lifestyle followed by the menstruating woman will have an impact on the quality of the developing follicle. Hence, the concept of *Supraja Jananam*^[3] i.e healthy progeny begins at the very early level of Rajaswala paricharya. Therefore, in the present era, with the increasing incidence of menstrual irregularities, PCOD, infertility etc., there is an urgent need to follow Rajaswala paricharya.

Keywords: Rajaswala Paricharya, Menstruation, Reproductive health, Modern physiology of menstruation, Dominant follicle, Healthy progeny, Menstrual irregularities

INTRODUCTION

“Yadapatyanam mulam naryah param nrunam” (c.ch.30/5-6) ^[4]

Stri is the root of progeny and diseases of reproductive organs causes impediment in procreation. Depending on her age, a woman passes through three phases in life – childhood, reproductive age group and old age. In the reproductive phase, women undergo cyclical changes which play a prime role in reproduction. A woman in her menstruating phase is termed Rajaswala in Ayurvedic classics.

IMPORTANCE OF RAJASWALA PARICHARYA :

In this competitive world, a healthy and intelligent offspring is the need of the society. To induce desired psycho-somatic features in an offspring, training of the baby is started right from the beginning when the baby is in the womb in the form of “Garbha Samskara”.^[5] Science has also proved that the anatomical, physiological & psychological built up of an offspring is totally depend on parents’ genes. The effect of diet, surrounding, maternal illness etc., also have a proven effect on the foetus in the womb.^[6] Acharya Bhavmishra quoted that if any women avoid to follow Rajaswala paricharya due to greed then it can cause “*Garbhodoshastadaapnuyaat*” i.e it may hamper the future offspring.^[7]

Rajaswala phase or the period of menstruation, is the phase when follicles are recruited for the next cycle and the dominant follicle is chosen by the 5thTo7th day. Following Rajaswala Paricharya not only helps the women to adapt to the physiological & psychological changes occurring in the body during menstruation but also helps in conceiving a healthy offspring.^[8]

Now-a-days, it is seen that the prevalence of gynaecological disorders is increasing day by day. Modern diet & lifestyle has increased the incidence of menstrual irregularities, PCOD, infertility etc. Hence, to maintain the reproductive health of the women some Do’s & Don’ts are described by our acharyas.

Clinical Significance of Rajaswala Paricharya As Garbhadana Purva Samskara :

Acharya Sushruta has mentioned four essential factors for the formation of Garbha. These includes - Ritu (Period near to ovulation), Kshetra (Healthy female reproductive organ), Ambu (Nourishing substances), Beeja (Healthy sperm and ovum).^[9] Further Acharya Vagbhata added the terms shuddha shukra and shuddha rakta as the essential factors for the formation of *Garbha*.^[10] which further

supports the importance of Rajaswala Paricharya and its significance in the attainment of healthy progeny.

Rajaswala Paricharya According To Different Acharyas

ACHARYAS	DO & DON'TS
Charak ^[11]	He says that from the onset of menses till 3 days and nights she must – ✓ Observe chastity ✓ Eat in unbroken vessel placed in hand, and ✓ Should not wash or take bath or clean her body.
Sushruta ^[12]	He says that from the 1 st day of onset of menstruation a woman should – ✓ Follow celibacy ✓ Avoid day sleep, Anjana, Crying, Lepana, Abhyanga, Cutting nails, Racing, Laughing, Talking too much, Listening to various topics, Combing, Wind, Exercise ✓ She must sleep on bed made of <i>Darbha</i> ✓ Eat <i>Havishyanna</i> i.e meal made of ghruta, Sali & milk served in hand or palm or utensil made of clay, leaves etc.
Vagbhatta ^[13]	Avoid spicy, sour and salty food.

According to Ayurveda, Rajaswala Stree can be included under following three categories:^[14]

1. A person who has undergone *Shodhana* procedure –

- Menstruation is the naturally occurring *Shodhana* procedure so, menstruating women is considered as *Shodhita*.
- In classics, *Ashtau-Mahadoshakara Bhavas* i.e the Bhavas which should be avoided by shodhita vyakti are described. Among these Bhavas, Maithuna, Ajirna Bhojana and Ahita Bhojana are those Bhavas which are also mentioned in Rajaswala paricharya.^[15]

2. A person having decreased digestive fire – *Agnimandhya*

- In Ayurvedic texts, it is mentioned that *Agni* of an individual gets decreased during or after any of the

shodhana prakriya as menstruation is the natural *shodhana*, it will decrease the digestive fire.

- According to this, *Havishyanna*^[16] i.e the food offering in the holy fire is advised for the Rajaswala stree. The food offered in the holy fire slowly and steadily stokes and increases it .
- After the *shodhana* karma, *Samsarjana* karma is advised so that *Jatharagni* is increased upto the level, where it can digest the food properly.^[17]
- The *Agneya Dhatu Rakta* being expelled causes a reduction in the *Agni* of the menstruating woman therefore *Laghu Anna* is advised.
- In Rajaswala, the *Havishyanna* plays an important role to increase the *Agni*. *Yava* and milk

(Godugdha) are easy to digest, so indicated for Rajaswala stree.^[18]

3. A person having a wound i.e *Vranita Vyakti* –

- Shedding of endometrium results in exposure of blood vessels, which can be considered as raw wound in the body.
- The *Pathya – Apathya* prescribed for the *Vranita* vyakti are almost similar to the *Pathya – Apathya* prescribed for the Rajaswala stree.

These include eating *Yava, Laghu – Aahara* in less quantity which is easily digestible. One should avoid maithuna karma.^[19]

So, the menstruating women should follow the *Rajaswala Paricharya* in order to protect the Agnibala and to avoid complications arising due to *Mandagni* and *Pradnyaparadh*.

THE AYURVEDIC BASIS OF RAJASWALA PARICHARYA:

DO'S & DON'TS	POSSIBLE AYURVEDIC EXPLANATION
1. Avoid sexual activity	As said by acharya sushruta that the penetration of <i>Beeja</i> (sperm) during menstrual flow is not good, as a light article thrown in the flowing river against the current never reaches upwards, similarly sperm deposited during menstruation do not reach uterus, hence, for 3 days the woman should avoid coitus. ^[20]
2. Eat <i>Havishya</i> (food made from Sali rice, ghee and milk) and <i>Yavaka</i> (food made of barley & milk) served in clay utensils or leaves	In classics, it is mentioned that, <i>Yava</i> is <i>Karshanahara, Deepana, Vatanulomana</i> so easy to digest hence producing abundance of faeces and promotes stability. ^[21] Also, helps in relieving constipation. Similarly, <i>Milk</i> is sweet, refreshing, provides strength to the body. This is most useful in <i>Kshat</i> . ^[22]
3. Avoid bathing (head bath)	As menstruating woman is having low digestive fire and bathing is contraindicated in <i>Agnimandhya</i> by our acharyas. ^[23] Bathing can also cause tiredness and can cause vata prakopa in the long term.
4. Should sleep on <i>Darbha</i> mat and avoid day sleeping	From the Vedic time, onwards <i>Darbha</i> is having its importance in rituals. The experiments proves that this grass protects the body from negative energies and from toxic radiations. Traditionally during eclipse, <i>Darbha</i> are placed on vessels containing food and water, so that negative effect of rays from eclipse doesn't spoil them. Due to its pittahara property, it may give soothing effect to menstruating women and also helps in treating raktapradara. ^[24]
5. Avoid laughing, too much talking, running, heavy exercises, crying	About half of menstrual flow is blood. This blood contains sodium, calcium, phosphate, iron and chloride ^[25] , So heavy workout can cause weakness in menstruating women as blood and electrolytes is lost in menstruation. To prevent vitiation of vata dosha which can cause painful menstruation along with alteration in <i>shuddha Artava</i> Lakshanas.
6. Avoid use of <i>Anjana</i> , cosmetics and ornaments	<i>Anjana</i> is prepared from Ghee and Pittashamak herbs for cooling effect but during menstruation normal pitta function is required for proper menstrual flow, so use of <i>Anjana</i> may decrease blood flow. ^[26] During menstruation, progesterone level is low while testosterone production increases a women's sex drive. ^[27] Adorning and decking herself with jewellery is likely to increase the chances of sexual activity.
7. Avoid use of <i>Abhyanga, Udavartan</i> and <i>Lepana</i>	In a menstruating woman sweat releases toxins and pheromones which can be hampered from these processes. Local therapies like <i>Abhyanga, Udavartan</i> etc. need local Agni to be absorbed through sukshma pachana. Therefore, these therapies should be avoided to protect Agni. Also, these activities are contraindicated in <i>Agnimandhya</i> .
8. Avoid Tikshna (pungent), Katu (spicy)	Such diet can increase pitta dosha which further can increase in the amount of menstrual blood flow.

and Lavana (salty) food	As said by Acharya Charak “ <i>katuka raso shonita sanghatam bhinnati</i> ” ^[28] so excessive intake of katu ras can cause bleeding disorders like Asrigdara in Rajaswala Stri.
9. Avoid all Panchkarma procedures	As menstruating women has <i>Agnimandhya</i> and she is categorised under <i>Vranita</i> (a person having wound). any type of shodhana is contraindicated in Vranita vyakti.
10. Should harbour good thoughts	Thoughts and mental stability are closely related with menstrual cycle. Ayurveda recognises this relation while describing “ <i>chintyanam cha ati chintanat</i> ” as a cause of rasa dushti. ^[29] Stress generated by negative thoughts can therefore affect the Rasa dhatu and its updhatu Artava.
11. Avoid listening to loud sounds	To avoid Vata prakopa and Rasa dhatu kshaya and to keep mind calm, women should avoid to listen loud sounds. Rasa dhatu loosely refers to blood plasma and quantitate decrease of Rasa dhatu takes place due to blood lost in menstruation. It further causes intolerance to loud sound. ^[30]

RAJASWALA PARICHARYA AND THEIR SCIENTIFIC VALIDATION:

1. Avoid sexual activity –

During menstruation pH is increased which can provide the favourable environment to the growth of yeast infections. The shedding of endometrium also leaves a raw area in the uterus. These factors can cause rapid growth of any fungal or bacterial infections. Sexual activities during this period may transmit STIs, which can reach upto peritoneal cavity via uterus and fallopian tube. So, women should maintain celibacy during this period.

2. Eat *Havishya* (food made from Sali rice, ghee and milk) and *Yawaka* (food made of barley & milk) served in clay utensils or leaves –

Prostaglandins causes the uterus to contract to slough off the uterine lining during menstruation. If prostaglandins are present in excess, they can lead to uterine cramps and discomfort. Also, it is possible that excess level of prostaglandins could be the cause of diarrhoea and gurgle noises, as it

causes increased contractions and motility of smooth muscle of the digestive tract.^[31]

Barley (*Hordeum vulgare*) is a good source of dietary fibre, minerals and antioxidant. The phenolic compounds extracted from barley showed excellent antioxidant activities determined by oxygen radical absorbance capacity (ORAC) and cellular antioxidant activity (CAA) assays, as well as potent antiproliferative activity towards HepG2 human liver cancer cells (yong zhu et. al.)^[32]

The soluble fibre in barley increases friendly gut bacteria that produces short chain fatty acids, which reduces gut inflammation.^[33]

Most of the fibre found in barley is insoluble, which — unlike soluble fibre — does not dissolve in water. Instead, it adds bulk to your stool and accelerates intestinal movement, reducing your likelihood of constipation (I Bourdon et. al.)^[34]

Clay has alkaline properties so utensils made of clay neutralises the Ph balance of the food by interacting with acids in food, thus enhances the digestion. Clay contains

more than 16 natural minerals which are beneficial for health. These include calcium, phosphorus, magnesium, iron, copper and manganese presented in right quantities.^[35]

2. Avoid Day Sleeping and Over Exertion – Hans A Keizer in his much cited article states that, menstrual cycle alteration are most likely caused by subtle changes in the episodic secretion pattern of LH as have been found in sedentary women with hypothalamic amenorrhoea as well as in athletes after very demanding training. The altered LH secretion then, might be caused by an increased corticotrophin-releasing hormone (CRH) secretion which inhibits the Gonadotrophin-Releasing Hormone (GnRH) release. In addition, increased CRH tone will lead to increased beta-endorphin levels which will also inhibit the GnRH signaller. Finally, the continuous activation of the adrenals will result in a higher catecholamine production, which may be converted to catecholestrogens. These compounds are known to be potent inhibitors of GnRH secretion.^[36]

3. Harbour good thoughts – Oestrogen & progesterone are the main hormones in regulating menstrual cycle. Oestrogen affects the part of the brain that control emotions so, this hormone is closely related with women's emotional well-being. The level of these hormones is

relatively low during menstruation which may lead to impulsive decision making.^[37]

Consciously creating positive thoughts helps in maintaining mental and emotional stability.

C Rivier in his article states that increased circulating corticosteroids levels may decrease pituitary responsiveness to GnRH. It therefore follows that stress can result in disturbing the mechanism of the menstrual cycle and may affect fertility and general health of a woman.^[38]

4. Avoid Katu (Spicy) Ras –

Katu Ras is having thrombolytic activity i.e ability to breakdown the blood clot. (Ritu Rani et.al.)^[39] therefore, aggregation of platelet does not takes place and bleeding continues in the form of Abnormal uterine bleeding.

5. Avoid Bathing (Head Bath) –

According to modern physiology, it is observed that there is fluctuation and high temperature during menstrual cycle.^[40] This fluctuation is due to hormones. Oestrogen causes a fall in the body temperature before ovulation and progesterone rise the temperature after ovulation and until menstruation. During menstruation, if head bath is taken it will disturb the haemostasis maintained by the hypothalamus.

Bathing with hot water enhances peripheral blood circulation. This can reduce the

blood flow to the uterus, and the expected purification may be compromised.

During menstruation internal os is open, this can cause ascending infections into the uterine cavity due to altered pH of vagina. So, water treatments should be limited during this period.

6. Sleep on *Darbha* mat –

Darbha has antimicrobial, anti-cancerous and antioxidant properties.^[41,42] This plant contains some volatile oils which act as antimicrobial agents. The hydroalcoholic extract of this plant has proven anti-oxidant activity.^[43] Also, petroleum ether, benzene chloroform, ethanol and aqueous extract of the whole parts of this plant has proven analgesic, antipyretic and anti-inflammatory activity.^[44] So useful in dysmenorrhoea.

Sleeping on *Darbha* mat helps to get relief from backache and bodyache also.^[45]

OXIDATIVE STRESS DURING MENSTRUATION :

- During menstruation the lining of the uterus, called endometrium, breaks down and sheds. Endometrial breakdown and repair are associated with overt inflammation and an influx of inflammatory cells, including neutrophils and macrophages.^[46] This indicates an increase in the production of toxic oxygen radicals at the time of menstruation.

- Under non-menstruating phase, the hormone oestrogen plays an important role in neutralizing toxic oxygen radicals. All oestrogens have a chemical structure similar to phenolic compounds. Therefore, they possess reactive oxygen species (ROS)- scavenging, chain-breaking, antioxidant activity.^[47] However, during menstruation, oestrogen is at an all-time low. In addition, the loss of blood results in the loss of RBCs which are also known to act as antioxidants that protect the target cells from reactive oxygen species.^[48]
- Studies reveal increased oxidative stress and decreased antioxidants as one of the important contributing factors in the pathogenesis of primary dysmenorrhoea.^[49]
- Micronutrients in the diet such as vitamins A, C and E, as well as antioxidant enzymes, are known to neutralize oxygen free radicals and inhibit oxidative stress.
- Studies indicate that menstruating woman should be supplemented with natural antioxidants like vitamin E, C and beta-carotenoids, which would be extremely useful and may be helpful in combating primary dysmenorrhoea.^[50]

CONSEQUENCES OF INDULGENCE IN RESTRICTED ACTS:

If the women does not avoid the restricted acts due to ignorance or greed, the vitiated dosas lead to the following abnormalities in the foetus^[51] –

Table 1: Contra indicated actions of mother cause abnormalities in the child

ACTIVITIES OF MOTHER	ABNORMALITIES OF FOETUS
Divaswapna (day sleeping)	Swapasheela (over sleeping)
Use of Anjana (collyrium)	Dagdha (partial blindness)
Rodhana (weeping)	Vikrita drishti (defective vision)
Snanam (bathing)	Dukha sheela (gloomy)
Abhyanga (oil massage)	Kushta (skin disease)
Nakhapakartana (nail cutting)	Kunakhi (deformity of nails)
Pradhavana (fast running)	Unsteady both physically and mentally
Hasana (laughing)	Black colour of teeth, lips and tongue
Pralapa (over talking)	Talkative
Atishabdha sravana (over hearing)	Deafness
Combing the hair	Baldness
Exposure to the breeze and too much exertion	Mentally trouble
Use of nasya	Menstrual abnormalities

SCIENTIFIC VALIDATION OF THESE RESTRICTED ACTS:

Divaswapna is known to increase kleda. at the sukshma level an ovum nourished with rasa having excess kleda may cause lethargy in the individual thus conceived. The vitiation of doshas at the sukshma level of the ovum may be postulated to be the cause of fetal abnormalities arising out of improper Rajaswala paricharya. Foetal Origin of Adult Diseases (FOAD) is first popularized by Dr. David Barker holds that events during early development have a profound impact on one's risk for development of future adult diseases.^[52]

The Developmental Origin of Health and Diseases (DOHaD) theory is based on the concept that origins of lifestyle-related disease is formed at the time of fertilization, embryonic, fetal, and neonatal stages by the interrelation between genes and the environments (nutrition, stress, or environmental chemicals).

The concept of pre conception care recently propagated by western medicine also aims to reduce maternal morbidity and mortality and increasing the chances of conception when pregnancy is desired.

we can safely say that the practices advocated in Rajaswala paricharya are provisions of biomedical behaviour and social health interventions to women who wish to bear healthy progeny.

CONSEQUENCES OF COITUS DURING MENSTRUATION:^[53]

If copulation occurs during the first day of menstruation, it affects the health and lustre of the husband. During this time, entry of sperm into the uterine cavity is not possible and does not results in pregnancy. So, Acharyas have directed to follow brahmacharya for three days otherwise it will worsen the condition of the mother and the foetus.

Menstruation	Effect on the Baby
1 st day	No pregnancy/Intrauterine foetal death
2 nd day	Abortion/Stillbirth
3 rd day	Defective body parts and short life
4 th day	Normal and healthy life

Review of menstrual practices among different cultural & religions :

There are many studies published about the scientific practices of Rajaswala paricharya but they are not practised till now. Many survey studies of different religion, rural and urban women population, adolescent and reproductive age group are done. Finally, the conclusion of such studies is that menstrual rituals are unhygienic practices and the taboos related with menstruation are global phenomena. The society across world have viewed menstrual blood as pollution, dirt, danger and evil. So, the stigma about menstruation still exists and female are treated as untouchable, unclean, leaving her isolated and restricted her daily routine.^[54]

Some Socio-cultural restrictions among different religions are as follows:^[55]

1. Two commonly reported menstrual practices – Seclusion practice (Chhaupadi) and Separation practice are found in the rural communities of Achham district of Nepal. In Chhaupadi practice, women are secluded to stay in a small shed away from the house and restricted to wash or take bath in public water sources for 5-7 days of the periods, whereas in the separation

practice, women can stay in the house, but they still have several restrictions.^[56]

2. Special sacred reed hut ‘Giparu’, Golla is a specially designed hut outside village for isolation of menstruating women among primitive cultures and tribal religions in South Asia, Africa.^[57]

3. In Buddhism culture, menstruating women is restricted to meditate and they are not allowed to contact with priest nor take part in wedding ceremonies. They believe that menstruating women loses spiritual energy so, can attract ghosts and is therefore threat to others.^[58]

4. In Vedic literature, “Manusmriti” states that the wisdom, the energy, the strength, the might and the vitality of a man who came in contact with a women who has menstrual exertions, utterly perish.^[59]

5. In Hindu culture, menstruating women are traditionally considered ritually impure and given rules to follow.^[60] Menstruating women is restricted to perform any religious work, not allowed to enter in the kitchen and must keep separate utensils.

Due to globalization, most of the menstrual practices were found in tribal and backward rural areas. Yet, a population study in the Cuddalore district of Tamil Nadu suggested that these practices are comparatively high

amongst urban respondents but except religious and ceremonial related taboos, women did not favour practice of other social taboos. [61]

OBSERVATIONAL/INTERVENTIONAL STUDIES ON EFFECT OF RAJASWALA PARICHARYA ON MENSTRUAL SYMPTOMS :

1. In a case study, 30 married girls of age group 18-24 years were studied after following Rajaswala paricharya for 3 days for 6 consecutive cycles. There was significant decrease in menstrual symptoms like backache, legs pain, pimples, headache, breast tenderness, cramps, diarrhoea, constipation, loss of appetite, vomiting, weakness etc. [62]

2. A Case study on a 25 year old female having Dysfunctional uterine bleeding reported observance of Rajaswala paricharya for four consecutive cycles. The result is return of her menstrual to normal from heavy bleeding. [63]

3. A Case report on effective management of Premenstrual syndrome with ayurveda. In this article along with internal medication Rajaswala paricharya was advised. [64]

DISCUSSION :

- Ayurveda texts describes female reproductive tract disorders under *Yonivyapad* and the samanya nidana of all the yonivyapad in Mithya

achara i.e incompatible diet and lifestyle, vitiated Artava, Beeja dosha (defect in sperm & ovum quality) and God grace. [65]

- Non adherence to the Rajaswala paricharya may predispose the woman to yonivyapadas as *Ashtaartavadushti* like Kunapagandhi (foul smelling), Pootipuya (pyogenic), Granthibhuta (clotted), Ksheena (scanty), or in the form of Artavavridhi (excessive menstruation) and Artavakshaya (scanty and irregular).
- According to Ayurveda, Rajaswala period is marked by Agnimandhya, Klama, Dhatu kshaya. It is a period of cleansing and detoxification of the mind and the body.
- The HPO axis starts a new cycle in this period and the recruitment of follicles begins during this phase. Biomedical behaviours and social interventions adopted during this period can have an impact on the developing ovum, endometrium and fertility of a woman. Not only with regards to her ability to conceive, but also to bear a normal and healthy foetus and carry it to term.
- Rajaswala paricharya helps to reduce oxidative stress which triggers potentially damaging

biochemical reactions. It also helps to counteract free radical activity through a diet rich in antioxidants.

- Social interventions like seclusion promote contemplation and inward journey which is required to keep the mind balanced. The *Saumanasyam* gained thereafter is vital for healthy progeny.

CONCLUSION:

A balanced mind, healthy body and joyous spirit which will result through this mode of discipline, will attract a joyous and strong spirit or atman in the conception that occurs thereafter. Strong, healthy, balanced individuals with empathy for fellow human beings is the requirement of today's world. Rajaswala paricharya if followed with faith and purpose will guide today's woman to not only lead a joyous life but also perform the duty bestowed on her by nature "procreation".

REFERENCES:

- [1] Minal D Bhusevar, Madhuri A. Pachghare, A Review study of Rajaswala Paricharya correlating with menstruation, in present era, World journal of pharmaceuticals research, 2017 ;6(3), 427-434p. Available from: www.wjpr.net
- [2] Hiralal Konar, DC Dutta's textbook of Gynaecology including contraception, 7th edition 2016, Jaypee brothers medical publishers (P) Ltd. Ch. 8 Menstruation, 68pg.
- [3] Dr. Mrudula K.S, Importance of Rajaswala Paricharya in Supraja Janma, Aayushi International Interdisciplinary Research Journal (AIIRJ), 2019; vol 6(3),34-36 p. Available from: www.aiirjournal.com
- [4] Charak Samhita editor Vd. Harish Chandra Singh Kushwaha, Chaukhambha Orientalia, Varanasi, 2018; chikitsa sthan 30/5-6 pg. 798
- [5] Shanti Chauhan et. al. Garbhasanskar: Boon for pregnant women, Journal of Ayurveda and Integrated Medical Sciences, 2018; 3(5), 153-158p. Available from : www.jaims.in
- [6] Jasmine Gujarathi, Ritesh Gujarathi.Garbha Samskara-Prenatal Education: Concepts, practice and prospects, JAHM, 2014 Jan; 2(1),40p. Available from: www.jahm.in
- [7] Premavati Tewari, Ayurvediya Prasuti Tantram Evam Stree roga, Part1,2nd ed, Chaukhambha Orientalia, 2010; 68p.
- [8] Mrudula K.S, Importance of Rajaswala Paricharya in Supraja Janma, Aayushi International

- Interdisciplinary Research Journal (AIIRJ), 2019; vol 6(3),34-36 p.
Available from: www.aiirjournal.com
- [9] Premavati Tewari, Ayurvediya Prasuti Tantram Evam Stree roga, Part1, 2nd ed, Chaukhamba orientalia, 2010; 86p.
- [10] Premavati Tewari, Ayurvediya Prasuti Tantram Evam Stree roga, Part1, 2nd ed, Chaukhamba orientalia, 2010; 86p.
- [11] Charak Samhita Vol 1, Dr. Bramhanand Tripathi, Chaukhamba Publication, Edition 2013. Sharirasthan, Adhyay 8, Sutra 5.
- [12] Sushrut Samhita, Dr. Ambika Datta Shastri, Chaukhamba Publication, Edition 2016. Sharirasthan, Adhyay 2, Sutra 25.
- [13] Ashtang Hriday, Dr. Bramhanand Tripathi, Chaukhamba Publication, Edition 2015. Sharirasthan, Adhyay 1, Sutra 24-26.
- [14] "Rajaswala Paricharya: Effect on Menstrual Cycle and Its associated symptoms – By Dr. Pallvi Pai, Dr. Sarita Bhutada, Dr. Prasad Pandkar.
- [15] Charak Samhita – Aayurvedadipika Commentry - Prologue by Prof. R.H. Singh, Publication – Chowkhambha Surabharati Publication, Varanasi, Siddhisthana, 2014; 12/11: 727
- [16] Sushruta Samhita with Nibandhasamgraha Commentry edited by Vaidya Yadavaji Trikamji Acharya, Publication- Chaukhamba Sanskrit Sansthan, Varanasi, Sharirasthan, 2012; 2/26: 346
- [17] Charak Samhita – Aayurvedadipika Commentry - Prologue by Prof. R.H. Singh, Publication – Chowkhambha Surabharati Publication, Varanasi, Siddhisthana, 2014; 1/12: 679.
- [18] Charak Samhita – Aayurvedadipika Commentry - Prologue by Prof. R.H. Singh, Publication – Chowkhambha Surabharati Publication, Varanasi, Sutrasthan 2014; 27/19: 154
- [19] Charak Samhita – Aayurvedadipika Commentry - Prologue by Prof. R.H. Singh, Publication – Chowkhambha Surabharati Publication, Varanasi, Chikitsasthan 2014; 25/97-98: 596
- [20] Sushruta Samhita with Ayurveda-Tattva-Sandipika Commentry edited by Kaviraja Ambikadutta Shastri, Publication- Chaukhamba

- Sanskrit Sansthan, Varanasi, Sharirasthana, 2011; 2/33: 19pg.
- [21] Charak Samhita – Aayurvedadipika Commentry - Prologue by Prof. R.H. Singh, Publication – Chowkhambha Surabharati Publication, Varanasi, Sutrasthana 2014; 27/19: 154
- [22] Charak Samhita – Aayurvedadipika Commentry - Prologue by Prof. R.H. Singh, Publication – Chowkhambha Surabharati Publication, Varanasi, Sutrasthana 2014; 1/107-108: 22.
- [23] Tripathi I, Tripathi SD (Ed). Yogratnakara, Chaukhamba Krishnadas Academy, Varanasi: 2nd edition; 2007; Nityapravrit-tiprakaramaha, shloka-77;51.
- [24] <https://en.m.wikipedia.org/wiki/Eragrotis> – Eragrotis Wikipedia
<https://ecosensible.wordpress.com/medicinal-cultural-spiritual-aspects-of-plants>
<https://www.worldwidejournals.com/file>
- [25] <https://en.wikipedia.org/wiki/Menstruation>
- [26] Jasmine Gujarathi, Asokan V. Pragmatic approach towards menstrual practices: A contemporary, cultural, and ayurveda science review, Ayushdhara, 2021 Jan-feb; 8(1),3056-3063p.
- [27] <http://www.everydayhealth.com> – Is it safe to have sex during your period ? By Amy Kraft Medically Reviewed by Justin Laube, MD.
- [28] Agnivesha, Charaka, Dradhabela, Charaka Samhita, Sutrasthana, Edited by Pt. Kashinath Shastri, Edition 2003; Chaukhambha Bharati Academy; Varanasi; Adhyaya-26/43(4), p-506.
- [29] Charak Samhita – Aayurvedadipika Commentry – Editor Vd. Harish Chandra Singh Kushwaha, Publication – Chowkhambha orientalia, Varanasi , Vimanasthana, 2018; 5/13: 633pg.
- [30] Charak Samhita – Aayurvedadipika Commentry – Editor Vd. Harish Chandra Singh Kushwaha, Publication – Chowkhambha orientalia, Varanasi , Sutrasthana, 2018; 17/64: 268pg.
- [31] <http://www.popsugar.com/fitness/What-Causes-Digestive-Issues-During-Menstrual-Period-Why-Digestion-Is-Messed-Up-During-Your-Period> by SUSI MAY (25 September 2016)

- [32] Yong Zhu et. al. Phenolics content, antioxidant and antiproliferative activities of dehulled highland barley (*Hordeum vulgare* L.), Journal of functional foods, Volume 19, Part A, December 2015, Pages 439-450 <https://www.sciencedirect.com/science/article/pii/S1756464615004715>
- [33] S Macfarlane et. al., review article: Prebiotics in the gastrointestinal tract, National library of medicine, 2006 Sep.1;24(5):701-14 pg. <https://pubmed.ncbi.nlm.nih.gov/16918875/>
- [34] I Bourdon et. al., Postprandial lipid, glucose, insulin, and cholecystokinin responses in men fed barley pasta enriched with beta-glucan, National library of medicine, 1999 Jan;69(1):55-63 pg. <https://pubmed.ncbi.nlm.nih.gov/9925123/>
- [35] 7 Amazing benefits of using clay utensils – Crunch stories <https://www.crunchstories.in>
- [36] H A Keizer, Physical exercise and menstrual cycle alterations, National library of medicine, 1990 Oct;10(4):218-35 pg. <https://pubmed.ncbi.nlm.nih.gov/247724/>
- [37] www.medicaldaily.com>menstruation – Menstruation and female brain, How fluctuating the hormones
- [38] Rivier C, Rivest S. Effect of stress on the activity of the Hypothalamic-Pituitary-Gonadal Axis: Peripheral and central mechanisms. Pubmed, 1991 Oct;45(4):523-32. <https://pubmed.ncbi.nlm.nih.gov/1661182/>
- [39] Ritu Rani & Sandeep Singh Tiwari: Katuka Raso Shonita Sanghatam Bhinnati” – An In Vitro Study to Evaluate the Thrombolytic Activity of Certain Katu Rasa Substances. International Ayurvedic Medical Journal, 2018 Oct-nov; 3(1), 1413-1420 pg. Available from: http://www.iamj.in/posts/images/upload/1413_1420.pdf
- [40] www.medicaldaily.com>menstruation – Menstruation and female brain , How fluctuating the hormones
- [41] M Barath et al. Investigation of antimicrobial activity and chemical constituents of *Eragrostiscynosuroides* by GC-MS. Research J. Pharma and Tech.

- Vol 9(3); March 2016, pp 267-271.
- [42] Sakhalkar *et al.* Study of biological activity of *Eragrostiscynosuroides* based on Ayurveda literature. Indian journal of Applied Research. Vol 4(4); April 2014.
- [43] Upendarrao Golla, Solomon Sunder Raj Bhimathati, "Evaluation of Antioxidant and DNA Damage Protection Activity of the Hydroalcoholic Extract of *Desmostachya bipinnata* L. Stapf", The Scientific World Journal, vol. 2014, Article ID 215084, 8 pages, 2014.
<https://doi.org/10.1155/2014/215084>
- [44] <https://www.health.harvard.edu/pain/in/what-type-of-mattress-is-best-for-people-with-low-back-pain>
- [45] Garry R, Hart R *et al.* A reappraisal of the morphological changes within the endometrium during menstruation: a hysteroscopic, histological and scanning electron microscopic study. Hum Reprod 24, 1393-1401, 2009.
- [46] Sugioka K, Shimosegawa Y, Nakano M. Estrogens as natural antioxidants of membrane phospholipid peroxidation. FEBS Lett 1987; 210:37-39
- [47] Pandey K B, Rizvi s I, Markers of oxidative stress in erythrocytes and plasma during aging in humans, oxidative medicine and cellular longevity, 3(1), 2-12.
- [48] S. Venkata Rao, Ravi Kiran VS, Oxidative stress and antioxidant status in primary dysmenorrhoea, journal of clinical and diagnostic research, 2011 june, vol- 5(3):509-511.
- [49] S. Venkata Rao, Ravi Kiran VS, Oxidative stress and antioxidant status in primary dysmenorrhoea, journal of clinical and diagnostic research, 2011 june, vol- 5(3):509-511.
- [50] Sushruta Samhita with Ayurveda-Tattva-Sandipika Commentry edited by Kaviraja Ambikadutta Shastri, Publication- Chaukhamba Sanskrit Sansthan, Varanasi, Sharirasthana, 2011; 2/25: pg.
- [51] Kara Calkins, Sherin U Devaskar, Foetal origin of adult disease, NCBI, 2011 July, 41(6): 158-176 pg.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4608552/>
- [52] Sushruta Samhita with Ayurveda-Tattva-Sandipika Commentry

- edited by Kaviraja Ambikadutta Shastri, Publication- Chaukhamba Sanskrit Sansthan, Varanasi, Sharirasthana, 2011; 2/33: 19pg.
- [53] Amlanika Bora. Stigmatized menstruation and GST: A critical appraisal. International Journal in management and social sciences Vol 5(8) aug 2017. Pp 180-184. vol 5(9): sept 2017; 3510-3516.
- [54] M Guterman, P Mehta, M Gibbs. Menstrual Taboos Among Major Religions. The Internet Journal of World Health and Societal Politics. 2007 Volume 5 (2).
- [55] Subash Thapa, Shivani Bhattarai *et al*, 'menstrual blood is bad and should be cleaned': A qualitative case study on traditional menstrual practices and contextual factors in the rural communities of far-western Nepal, SAGE open medicine, 2019; vol. 7, 1-9 pg.
- [56] Jasmine Gujarathi, Asokan V. Pragmatic approach towards menstrual practices: A contemporary, cultural, and ayurveda science review, Ayushdhara, 2021 Jan-feb; 8(1),3056-3063p.
- [57] Lhamo Y.C. The fangs of reproduction: An analysis of Taiwanese menstrual pollution in the context of Buddhist philosophy and practice. History and anthropology. 14(2), 2003. Pp157-178.
- [58] G Buhler. The Laws of Manu. (translation) Cosmo Publication, New Delhi; 2004. Page.93(verse no 41)
- [59] Suneela Garg, Tanu Anand, Menstruation related myths in India: strategies for combating it, J Family Med Prim Care, 2015 apr-jun;4(2):184-186 pg. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4408698/>
- [60] K. Tamil Selvi, S Ramachandran. Socio-cultural taboos concerning menstruation: a micro level study in the Cuddalore district of Tamilnadu, India. International journal of scientific and research publication. Vol 2(8); Aug 2012.
- [61] Pallavi *et al*. Rajaswala paricharya: effect on menstrual cycle and its associated symptoms. IOSR Journal of dental and medical sciences. Vol 14 (2); Feb 2015. Pp 82-87.
- [62] Sonu *et al*. Efficiency of Rajaswala Paricharya in Asrigdara (Dysfunctional uterine bleeding): A case study; Journal of

Biological and Scientific opinion,
Vol 4(3);2016 273-274.

[63] Khushboo Jha, K. Bharathi *et al.*

A case report on effective
management of premenstrual
syndrome with ayurveda.
international journal of ayurveda
and pharma research, 2020
sep;8(9):57-62 pg.

[64] Charak Samhita –

Aayurvedadipika Commentry –
Editor Vd. H. Chandra Singh
Kushwaha, Publication –
Chowkhambha orientalia,
Varanasi , Chikitsasthana, 2018;
30/7-8.