

## A REVIEW ON MENSTRUAL CYCLE AND CONCEPT OF AYURVEDA

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### ABSTRACT

In womanhood, an important physiological manifestation is *Rituchakra*, i.e., menstrual cycle, which gives her identity of motherhood. *Rituchakra* means a wheel or a cycle which works repeatedly. It consists of three phases- i.e., *Rajahsravakaal*, *Ritukaala* and the *Rituvyatitkaala*. It shows a periodicity of one *Chandramasa* (28 days). *Rituchakra* is considered as an opportunity of the body for cleansing or removal of toxins, dominated by *Pitta Dosha*, later the influence of *Kapha* persists a few days before ovulation. During the ovulation period the *Vata dosha* becomes powerful enough to expel the ovum out of the follicle. In the absence of fertilization *Vata* gives way for *Pitta* during the premenstrual days and during menstruation.

Menstruation is a cyclic process and repeats every month. Its proper onset on time denotes an intact hypothalamus-pituitary-ovarian axis and a normally functioning reproductive system.<sup>[1]</sup> If there is deviation from normal pattern denotes a diseased state which can be cured through a proper diagnosis. Most of the discomforts during menstruation are because of the imbalance of *Tridoshas*. Timely and purposeful administration of *Aushadha*, *Aahara* and *Vihara* will restore the *Doshic* balance. Hence this study is taken with objective to review menstruation in different Ayurvedic classic, to compare and evaluate data available on menstruation.

**KEYWORDS:** *Rituchakra*, *Rajahsravakaala*, Menstruation.

## INTRODUCTION

*Ayurveda* mentioned the *Rituchakra* as a window into the human body. In *Ayurveda* we find reference with *Rituchakra* Which is an important normal physiological manifestation in women further giving her identity of motherhood. As far as modern science is considered, menstruation is the process where there is flow of blood from the uterus through the vagina occurring primarily in humans, determined by a complex interaction of hormones.<sup>[2]</sup> *Rutuchakra* is very important for *Garbhotpatti*; It is cyclic process that repeats every month in reproductive age of women. The role of *Doshas* has mentioned on menstruation i.e., menstruation is also governed by three *Doshas*, viz. *Vata*, *Pitta* and *Kapha*. Various terms are used in classic to denote menstrual blood and ovum with different references i.e., *Rutu*, *Raja*, *Shonita*, *Lohita*, *Pushpa*, *Beeja*. *Shuddha Artava*.<sup>[3,4]</sup> The significant factor in *Stree Sharira* which is important for the reproduction of healthy progeny is called as *Artava*. *Artava* is considered as the *Upadhathu* of the first and foremost *Dhatu* ie the *Rasa dhatu*.<sup>[5]</sup> The word "Artava" denotes two meanings, one of them is "*Bahirpushpa*" and another one is *Antahpushpa*. Both *Bahirpushpa* and *Antahpushpa* are interrelated. *Bahirpushpa* is outward manifestation of appropriate work of *Antahpushpa*, and is necessary for conception. It is produced cyclically and being directed by *Vata* and is expelled through the vagina.<sup>[6]</sup>

The very first *Rtuchakra* (menstrual cycle) starts at the age of 12 years which is called as *Rajopravatti* (Menarche) and cessation of *Rutuchakra* (Menstruation) called as *Rajonivritta* (Menopause) is up to 50 years. According to *Sushrutacharya*, Twelve and Fifty years is the age of menarche and menopause respectively. Where *Kashyapa* mentioned the age as sixteen years. According *Arundatta* there may be slight variation in individual cases.<sup>[7]</sup> In gynecology, menstruation is defined as the visible manifestation of cyclic physiologic uterine bleeding due to shedding of the endometrium, following invisible interplay of hormones mainly through hypothalamus-pituitary-ovarian axis.<sup>[8]</sup>

## Synonyms of Artava

In *Ayurveda*, one word is used for many meanings according to their significance. The word *Artava* is used for both *Masika Rajasrava* and *Streebeeja*. The term *Aratava* is used for different meanings in different texts as follows.

- *Artava* as a *Streebeeja*<sup>[9]</sup> and *Masik Rajasrava*<sup>[13, 14]</sup>
- *Rajas* as a *Streebeeja*<sup>[10]</sup> and *Masik Rajasrava*<sup>[15, 16]</sup>
- *Shonita* as a *Streebeeja*<sup>[11, 12]</sup> and *Rajasrava*<sup>[17]</sup>

### Nirukti of Artava

The word *Artava* denotes details about cyclical reproductive changes in *Stri*. The phenomenon which happens with regular interval is called as *Artava*. The word *Artava* itself denotes whole cyclical changes in female regarding the reproductive function.<sup>[18]</sup>

### Artava Utpatti

The blood collected during the whole month by two *Dhamanis* which is slightly in black in color and of characteristic odor is expelled by *Vayu* through *Yoni Mukha*.<sup>[19]</sup>

### Artava Swarupa As Rajasrava

*Artava* is formed from *Rasa Dhatu*, but the nature of *Artava* is not *Soumya* like *Rasa*, it is of *Teja Mahabhuta Pradhan*, i.e., *Agneya*.<sup>[20]</sup>

Vagbhata Acharya says the occurrence of *Artava* is periodical and it is of two (*Dwi*), three (*Tri*) *Bindu Pramana*. While commenting on the *Samyoga* of *Shukra* and *Artava*, *Dalhana* has described the *Swarup* of *Artava* as *Alpa*, *Styanibhuta*, *Sukshma* and *Asanchari*.<sup>[21]</sup>

### Characteristic Features of Shuddha Artava<sup>[22,23,24]</sup>

*Acharyas* has mentioned characters of normal menstruation. The normal *Rajasrava* mentioned in the text has inter-menstrual period of 1 month. According to *Acharya Charaka* duration of blood loss as 5 days and is not associated with pain or burning or any discomforts. Excreted blood is not unctuous, not very scanty or excessive in amount. According to *Acharya Sushruta* the color resembles the red juice of lac, red lotus flower or fruit of jequirity or like rabbit's blood. The cloth stained with it does not retain the stain when washed, such *Artava* is said to be *Shuddha*.

### Varna (Colour)

Varna	Samhita	Reference
Gunjaphala, Rakta Kamal, Alaktaka, Indragopa	Charaka Samhita	Ch. Chi. 30/226
Sashasrika, Laksha Rasa	Sushruta and Ashtanga Sangrha	Su. Sha. 2/19, A. S. Sha. 1/20
Ishat Krishna	Sushruta, Ashtanga Sangrha and Harita Samhita	Su. Su. 3/7, A. S. Sha. 1/43, Ha. Sha. 1/23-24

### Gandha (Odour)

- *Madhugandhi* - Smell that of Honey in *Prakruta Avastha* (*Ma. Ni. 61/7*).

- *Visrata Amagandhitva* – Foul smell like fermented food in *Vikruta Avastha* (Su. Su. 14/9).

### Matra (Quantity)

According to *Vagbhata*, it is four *Anjali*.<sup>[19]</sup> According to modern obstetrics the quantity of menstrual blood is 30-80ml.<sup>[25]</sup> That is why *Acharya Charaka* has described about the ideal characteristic features. He says that which is neither produces less nor more amount and which is ideal for conception and does not cause any pathology during and after every cycle is the ideal amount.<sup>[26]</sup>

### Sparsha (Feel)

The *Sparshatva* of *Artava* is *Anushnasheetam*.

### Samgathana (Constitution)

Composition of *Artava* is also *Panchabhautik* with the predominance of *Prithvi*, *Jala* and *Teja Mahabhootas*. *Vayu* helps in its regular generation and flows whereas *Akasha Mahabhoota* gives it the necessary space and *Laghuta*.

*Acharya Sushruta* says that the *Rakta* has *Visragandha* due to *Prithvi Mahabhoota*, same can be considered for *Artava*.<sup>[27]</sup>

### Rituchakra

In Ayurveda, Menstrual cycle termed as *Rituchakra* or *Aratavachakra*. The word '*Chakra*' signifies its regular onset at regular intervals, just like a wheel or a cycle. A single *Rituchakra* covers a period of one *Chandramasa* (28 days) and it has been divided into three phases-the *Rajahsravakaala*, the *Ritukaala* and the *Rituvyatitakaala*.<sup>[28]</sup> In *Stree Sharira* it is seen in the form of bleeding through vagina or the term menstruation, and it occurs in every month for the purpose of reproduction.

**Table: Showing Phases of Artavachakra.**

Phases/stages	Duration	Dosha dominance	Changes
Rajasrava	3 to 5 days	Vata Pradhana	Expulsion of aratava
Rutu Kala	12 to 16 days	Kapha Pradhana	Increased chance of conception
Rituvyatit Kala	9 to 13 days	Pitta Pradhana	Purana raja, yoni samvrutta, aratava becomes aagneya

**A) Rajasrava**

Duration	-	Acharyas	-	Reference
3 days	-	Bhava Prakasha	-	Purva. Khanda. Garbha 2/204)
3 nights	-	Ashtanga Sangraha	-	Shareera sthana. 1/10) A. H. (Sha. 1/7)
5 nights	-	Charaka Samhita	-	Chikitsa sthana 30/225
7 days:	-	Harita samhita	-	Shareera sthana 1/9
7 days	-	Bhela Samhita	-	Shareera sthana 5/6

Monthly (periodically) expulsion of rajas from yoni termed as Rajasrava (menstrual phase)

Duration of menstruation or inter-menstrual period of Artavachakra.

During this period, the stuff accumulated in the uterus during the previous period of fertility is eliminated. The *Raja*, which is accumulated in the uterus after *Rutukala*, is termed as "*Purana Rajas*". This accumulated *Raja* is eliminated from the uterus during *Rajasravakala*.<sup>[32]</sup>

The *Rajahsraavakaala* or the menstrual phase comes at an interval of one month. The duration of this phase varies according to different *Acharyas*. In general, the duration is from three to five days. Explaining about the physiology of this cycle, *Acharya Sushruta* has said that the dark-colored blood gets collected during the whole month by the *Arthav vimochini dhamani* in the *Garbhashaya* and this collected blood gets expelled through the *Yonimukha* monthly by the action of *Vayu (apanavayu)*. This is the phase of *Rajahsrava*.<sup>[33]</sup> This phase according to modern concept is the phase of menstrual flow which represents that the fertilization did not occur during the secretory phase, so the superficial two-third of the endometrium is shed and a new cycle begins.<sup>[34]</sup>

**B) Rutu Kala**

*Rutukala* is defined as period most suitable for achievement of conception. It is also called as fertile period and is of mostly 12-16 days from the 1st day of menses. It is called *ritukaala* because during this phase of a woman's menstrual cycle, if her *Garbhashaya* receives the seeds (sperms), there are chances of conception (just like the breeding season). The reason for conception during *Ritukaala* has been explained very well as follows-as the lotus flower closes itself after sun-set, similarly the *Yoni* of women gets constricted after *Ritukaala* and does not accept *Shukra* or the entry of *Beej* (sperms) into its inner components i.e. uterus, fallopian tubes etc.<sup>[35]</sup>

**Table – Showing the Duration of *Rutukaala*.**

<b>Ritukala</b>	<b>Opinions of Acharyas</b>
12 days (starts from 4th day of cessation of menstruation)	Charaka, Sushruta, Vriddha Vagbhatta, Laghu Vagbhatta, Kashyapa.
16 days (starts from 1st day of menstruation)	Bhavaprakasha, Harita, Videha.

**Table - On basis of Varna Paddhati Further division of Ritukala is illustrated in B.P. and Ka. Sa.**

<b>Varna Paddhati</b>	<b>Kasyapa Sh. /Jatisutriya/5</b>	<b>Bhavaprakasa/ Pu. 3/2</b>
Brahmana	12 days	12 nights
Kshyatriya	11 days	10 nights
Vaisya	10 days	08 nights
Other/Kshudra	09 days	06 nights

*Arunadatta* opines that these are the probable ages. There may be slight variation in individual cases as menarche may come at 11 years. About duration of *Rutu Kala*, there are different opinions.

1. It is for the whole month.
2. It is present even in the absence of menstruation

This *Ritukaala* is the proliferative phase of the menstrual cycle which represents restoration of the endometrial epithelium from the preceding menstruation.<sup>[36]</sup>

### **C) Rutuvyatita Kala**

*Rutuvyatita Kala* is of 9 to 13 days after *Rutu Kala*. It is the secretory phase of the menstrual cycle which represents preparation of the uterus for implantation of the fertilized ovum.<sup>[37]</sup> *Yoni samvrutta*, the closure or constriction of Yoni. As lotus flower closes after sunset, similarly after *Rutu Kala*, the *Yoni* of women gets constricted and does not accept *Shukra* or permits the entry of *Beeja* (sperm) into uterus. It is clear that, Ayurvedic classical texts provided detailed approach on the topic of *Rutuchakra* (menstruation).

### **Importance of Rituchakra**

*Rituchakra* or menstrual cycle is one of the most important physiological events in female's life. A healthy menstrual cycle is a must for reproduction and continuation of the progeny. It is very important to know about the normal physiology of *Rituchakra* because only after knowing about this, *Prakrita* and *Vikritawasthas* of women regarding menstrual cycle can be assessed. Many *Strivyadhis* (gynaecological diseases) as mentioned in *Ayurveda* can also be diagnosed and treated.

### General Menstrual Care

Menstrual cycle is an opportunity of the body for cleansing or removal of toxins. So it is essential to support the process of cleansing. All cleansing actions are giving importance to rejuvenation, rest and kindling of Agni.

1. Consumption of simple, freshly prepared and hot food items.
2. Adding spices such as Ginger, Cardamom, Cumin, Coriander and Cinnamon, Fennel seeds.
3. Cleansing involves the downward movement of wastes out of the body. So, the direction of flow should not be interrupted by any upward movements like excessive talking, thinking, sexual intercourse and even Pranayama and Yoga. All these activities need energy and our body needs to use all its reserve energy towards cleansing.
4. Suppression of urges like urination, defecation and sneezing should be avoided. All these will cause the upward flow of *Vata* which will disturb the free flow of cleansing action.
5. Meditation will bring peace of mind which again assists the action of *Prana Vayu* there by *Pancha vayu*.
6. Hydrate the body with warm teas such as ginger tea, lemon tea with honey, cumin, coriander and fennel teas.
7. Maintaining the balance of *Doshas* during with or without menstrual cycle. The better way to maintain *Doshas* in equilibrium is to do yearly cleanse. *Rutu shodhana* (Seasonal cleansing) is highly effective way to balance and rejuvenate all bodily tissues so that they function optimally.
8. Herbal care: In *Vataja Rutusrava* - Dashmoola, Adraka  
In *Pittaja Rutusravsa* - Satavari, Amalaki, Gudoochi, Kumari, Brahmi etc.  
In *Kaphaja Rutusrava* - Twak, Maricha.

Practicing Pranayama for balancing the mind as it helps to equalize the right and left sides of the brain and Yoga as per constitution will keep your body strong and energetic.

### DISCUSSION

*Ayurveda* is complete life science includes prevention as well as curative measures. Concepts of *Ayurveda* are focused to avoid disease, its recurrence and to cure it from root. Thus, we see that menstruation has been very well explained in *Ayurveda*. Therefore, *Ayurveda* has mentioned detailed physiology of menstruation which gives various aspects than that of in modern science the complete physiology of menstruation, age of onset, age of withdrawal, duration and amount of blood discharged, color, smell, quantity, unctuousness, etc. of the



menstrual blood in a normal condition have all been explained in very detail. Today with the development of modern tools and techniques we are able to explain these things in terms of hormones and other physiological process. But the concepts given by our *Acharyas* in *Samhitas* can never be ignored. Problems related with menstrual disturbances are one of the most common problems amongst females. The age of onset(menarche) and the age of cessation (menopause) of the *Rutuchakra*, regularity and periodicity of the *Rutuchakra*, the amount of the *Rajahsrava*(blood discharged), the density of *Rajahsrava* , the unctuousness of the *Rajahsrava* , the color of the *Rajahsrava* and any foul smell if present, plus its association with pain, etc. are the points which should be considered while making the diagnosis. Today, everyone's life has become so fast and stressful that we don't have time to take care of ourselves properly. *Ayurveda* has mentioned various words in which *Artava*, *Shonita*, *Rajah*, *Lohita* are used to denote menstrual blood or ovum at different places, Various factors influences the menstrual cycle ie. *Rasa*, *Rakta*, *Dhamnani*, *Dosha*. *Rajah* is said to be an *Upadhatu* of *Rasa*. The blood collected for whole month by both the *Dhamnees* is brought down to orifices by *Vayu* for excretion i.e *Apan Vayu* is responsible for this action. Physiological process of menstruation is governed by *Doshas* viz. *Vata*, *Pitta*, *Kapha*.

- *Rajahsravakala*- This phase is mainly influenced by *Vata*. In the phase of menstruation, the spasm in the straight stem arterioles as a causative phenomenon of bleeding is similar to action of *Vata* through *Dhamanees*.
- *Rutukala*- This phase is mainly influenced by *Kapha*. It is a period of resembling proliferative phase.
- *Rutuvyatitakala*- This phase is influenced mainly by *Pitta*. Therefore, this phase resembles the secretory phase.

The proper balanced state of these three *Doshas* cause normal menstrual cycle if any imbalance causes abnormality. *Ayurveda* has also given mode of living in menstruation. Right from the beginning of menstrual flow, Woman should observe *Brahamacharya*, she should not take bath, should not sleep during day time, should avoid exertion. Her diet should be light. The female is also advised to live in a happy calm mood.

## CONCLUSION

All *Acharyas* had described almost same about menstruation. *Ayurveda* has given various aspects of menstruation in detail than that of modern science which are helpful to spread awareness regarding menstruation. As menstruation is governed by *Doshas*, their imbalance



causes abnormality. Therefore, it is necessary to have balance state of *Doshas*. Thus, such a profundity about this topic will hardly ever found in Health Science branches other than Ayurveda. This conceptual study has its own limits up to reviewing concept.

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