

RUTUCHAKRA - An Ayurvedic Prospective on Menstrual Cycle

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Abstract

Ayurveda is the science which deals with maintenance of health and cure of disease. It stands on the frame work of Tridoshas, Sapta Dhathus and Trimalas. Apart from the sapta dhatus, upadhatus also play an important role. In female, Artava the upadhatu of rasa dhatu is responsible for conception. Hence, the healthy status of Artava is of prime importance when it comes to reproductive health. Any abnormality in Artava and its functions due to Agni dushti, Sroto dushti, imbalance of Tridosha's has an impact on menstrual regulation as well as reproduction. The menstrual cycle in ayurveda is called Rutuchakra. It consists of three phases - the Rajahsraavakaala, the Rutukaala and the Rutuvyatitkaala. Also it shows a periodicity of one chandramasa (28 days). Its proper onset on time denotes an intact hypothalamo-pituitary-ovarian axis and a normally functioning reproductive system.

Keywords: *Rutuchakra, Rajahsraavakaala, Rutukaala, Artava*

Introduction

Menstruation in gynaecology has been defined as the visible manifestation of cyclic physiologic uterine bleeding due to shedding of the endometrium, following invisible interplay of hormones mainly through hypothalamo-pituitary-ovarian axis. The menstrual cycle occurring in females has been termed in Ayurveda as **Rutuchakra**. The word 'chakra' signifies its regular onset at regular intervals, just like a cycle. A single *Rutuchakra* covers a period of one *Chandramasa* (28 days) and it has been divided into three phases-the *Rajahsraavakaala*, the *Rutu kaala* and the *Rutuvyatita kaala*. "**Rutau Bhawati artavam**" the word *Rutau* means particular or specific time period and *Bhavam* means occurrence. In females, *Rajas* or *Artava* is an *Upadhatu* of *Rasa dhatu*, coming out for three days in every month from the age of 12 years and ceases to flow at 50 years of age. The *Rakta* in *Stree* which reaches the *Garbha kostha* (uterus) every month and expelled for three days in every month is called as *Artava*. From the essence part of *rasa* the *upadhatu Artava* is formed. *Artava* is *Agneya*, which has characteristics of *Rakta*. *Artava* possess the same characteristics as that of *Rakta* and helps in the formation of *Garbha*. It is one of the most important physiological processes which enable the formation of *Garbha*. *Artava* can be understood as Menstrual flow (In *Samhitas* the word *Artava* is used to denote menstrual blood) and as *Ovum* (*Artava* is used to denote ovum at number of places in relation to fertilization).

'Prathama Rajodarshan kaala' (Age of menarche) and 'Rajo nivritti kaala' (Age of menopause)

The *Rutuchakra* does not occur in young girls (before menarche) because their *Yoni* (reproductive system) is *Heena* (under developed). As they grow elder, all the bodily systems get matured and menstruation also starts, the first menstruation in life is called menarche which is one of the signs of puberty, this has been called as '*Pratham rajodarshan kaala*'. On the other hand menopause means permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity; it has been termed as '*Rajo nivritti kaala*'.

❖ **Various opinions of Acharya's:**

Acharya Sushruta: *Rutuchakra* starts from the age of 12 years and comes to an end at the age of 50 years.

Vagbhata: Same opinion as that of Sushruta.

Acharya Kashyapa: The menstrual cycle appears at the age of 16. At the same time he has also said that this age of initiation of menses (menarche) gets influenced by specific *Aahara* (dietetics) and *Arogya* (health).

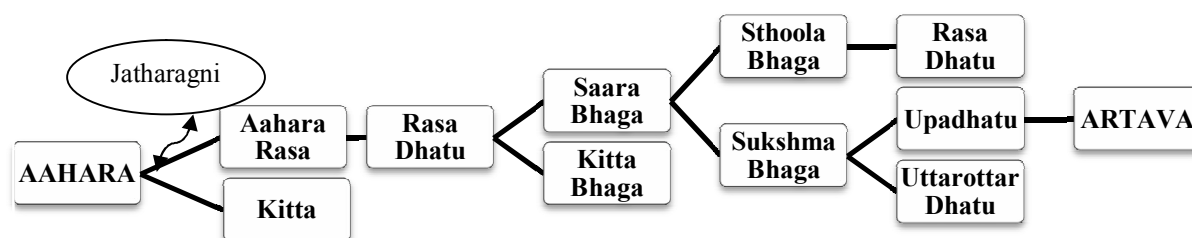
Arundatta: The age of appearance of menses and the age of menopause can also occur before 12yrs and 50yrs, respectively.

Chakrapani : *Artava* is visible at twelve years of age but it is formed in *Garbhakala* itself.

Dalhana: Accepts the presence of *Raja* or *Shonita* from the very childhood like *Shukra* by giving the simile "*pushp mukulastho*", which is not visible due to very minute quantity.

Artava is responsible for secondary sexual characters. The formation of *Shukra* from *Rasa* takes place in one month and is same for *Artava* formation in females. 12 years is the age of menarche where as menopause occurs in *Jarapakva shareera* i.e. at the age of 50.

Formation of Artava



All these are quite similar to the modern views where the age of menarche has been considered between 10 and 16 years, the peak time being 13 years. The onset of menses denotes an intact hypothalamo-Pituitary-Ovarian axis, functioning ovaries, presence of responsive endometrium to the endogenous ovarian steroids and the presence of a patent Utero-Vaginal canal. The important controlling factors for onset of puberty (and hence menarche) are genetic, nutrition, body weight, psychological state, exposure to light and others. A girl living in urban areas with good nutrition, adequate body weight and whose mother and sisters have early menarche, start puberty early. Also the age at which menopause occurs is genetically predetermined. The age of menopause ranges between 45-55 years, average being 50 years.

Discussion

➤ **Rajahsrava Kaala (Menstrual Phase)**

The *Rajahsrava kaala* 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 coloured blood gets collected during the whole month by the *Artava 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*. The character of the blood expelled during this

kaala has also been mentioned. These characters play a great role in diagnosing various types of 'Striroga' in which the normal features of the menstrual blood get altered. *Acharya Charaka* has explained it very beautifully. According to him, the normal menstruation is that which has an interval of one month, duration of five days, is not associated with pain or burning sensation, the expelled blood is neither very scanty nor excess in amount, and resembles the colours of *Gunjaphala*, Red Lotus flower, or of *Indragopa*.

Acharya Sushruta has further said that the *Shuddha artava* (non-vitiated menstrual blood) is that which is of the colour of Rabbit's blood or of *Laksha rasa* and which does not stain clothes. If the menstrual blood is not having these features then it means that it is vitiated by the *doshas* and is *vikrita* (diseased). Coitus specially has been contraindicated by all the *Acharyas* during this phase of *Rutuchakra*. This phase according to modern concept is the phase of menstrual flow which represents that the fertilisation doesn't occur during the secretory phase, so the superficial two-third of the endometrium is shed and a new cycle begins.

➤ **Rutu kaala (Follicular Phase)**

Rutukaala is that phase of *Rutuchakra* which comes after the *Rajahsrava kaala*. The duration of this phase is twelve days according to *Acharya Sushruta*. *Acharya Vagbhata* considers this duration as twelve days or sixteen days or it may also be of one month. *Acharya Kashyapa* has given a different concept depending upon different races of the society. It is called *Rutukaala* 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 *Rutu kaala* has been explained very well as follows – As the Lotus flower closes itself after sunset, similarly the *Yoni* of women gets constricted after *Rutu kaala* and does not accept *Shukra* or the entry of *Beeja* (sperms) into its inner components i.e. uterus, fallopian tubes etc. Various characteristic features of *Rutumati* woman have also been mentioned. The *Rutumati* woman looks charming, her mouth and teeth are moist, she looks excited to hear love stories and wants to have sex, her flanks, eyes and hair are lax, she feels quivering or twitching over arms, breasts, pelvis, umbilicus, thighs and hips and looks very happy and excited. Along with many other things, the clinically important *Kshara karma* and *Nasya* have also been contraindicated to *Rutumati stri*. This *Rutukaala* is the proliferative phase of the menstrual cycle which represents restoration of the endometrial epithelium from the preceding menstruation.

➤ **Rutuvyatita kaala (Luteal Phase)**

This is the phase of *Rutu chakra* just after the *Rutu kaala* and it ends with the onset of the *Rajahsrava kaala*. This phase has been mentioned in very short as the phase of the *Rutuchakra* when there occurs the closure or constriction of the *Yoni*. Because of this closure, entry of sperms is not allowed so no conception in this phase. The *Rutuvyatita kaala* is the secretory phase of the menstrual cycle which represents preparation of the uterus for implantation of the fertilized ovum.

❖ **Importance of Rutu chakra**

It is one of the most important physiological events in Woman'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 *Rutuchakra* because only after knowing about this, *prakrita* and *vikrita awasthas* of women regarding menstrual cycle can be assessed. Many *stri vyadhis* (gynaecological diseases) as mentioned in Ayurveda can also be diagnosed and treated. Some of these diseases and their symptoms related with menstrual abnormalities like *Ashtartava Dushti's*, *Asrigdara*, and few *Yoni vyapada's*.

Types of Menstrual flow with related to Tridosha's

<u>Vataja Flow</u>	<u>Pittaja Flow</u>	<u>Kaphaja Flow</u>
<p>As the <i>Vata dosha</i> dominates the uterus, its <i>Sheeta</i> and <i>Khara</i> qualities causes the blood vessels to constrict. <i>Ruksha guna</i> depletes the bodily tissues and finally causes early cessation of menstrual flow. Due to decrease in plasma and blood tissues, decreased nourishment to the endometrial lining of uterus the overall flow and menstrual discharge will be less, Where ever there is a blockage for the free flow of <i>Vata</i>, there will be pain. So most of the <i>Vata</i> dominating cycles will be painful.</p>	<p><i>Pitta</i> is hot and sharp. So it brings more fluidity to the blood so that it flows easily. <i>Pitta</i> resides in blood and in excess it may cause heavy bleeding. As it causes tendency for swelling, it leads to tender, swollen breasts, acne etc that women experience during their premenstrual period.</p>	<p><i>Kapha</i> is dull, heavy and sticky. Stronger the influence of <i>Kapha Dosha</i>, the more likely to get a prominent growth of the endometrial tissue. As more blood vessels grow to supply this growth, the <i>Kapha</i> cycle is more likely to experience a heavier flow than <i>Vata</i> cycle.</p>

❖ **Role of Agni**

The root cause for any *Artavavaha sroto vikara* would be *Agni dushti*. As *Agni* places a important role in formation of *Artava*. This is cleared when we understand the process of *Artava* in relation with its *Utpatti*, *Vahana* & *Nishkramana*. Any disturbance in this process leads to *Dushti* of *Artava* leading to many disorders of women.

❖ **Role of Srotas**

Artava utpatti, *Vahana*, *Nishkramana* process takes in its respective *Srotas* i.e *Artavavaha srotas*, having its *moola* as *Garbhashaya*. *Susruta samhita* mentions that any injury to this *srotas* results in infertility, etc. The *sara bhaga* enters the *Garbhashaya* through *Siras* & also as *rasa Sara bhaga* which is *Saumya guna*, gets converted to *Artava* by attaining the *Agneya* quality, *Artava* gets nourishment in its respective *Srotas* i.e *Artavavaha srotas* & is expelled in form of “*raja*” through *Srotas*. So any obstacle formed in *siras* or *srotas*, gives rise to problems like irregular menstruation, PCOD, infertility etc, due to *Srotorodha*, *Dushta vata* & *kapha* are active in *Artavavaha srotas*.

❖ **Role of Tridoshas**

<u>Role of Kapha</u>	<u>Role of Pitta</u>	<u>Role of Vata</u>
<p><i>Kapha dosha</i> is predominant during <i>rutukala</i>. During this period <i>Navina raja nirmana</i> takes place, it is said to be <i>RutuKala</i>. <i>Acharya Vishwamitra</i> states that <i>Tarpana</i> of the <i>Garbhasaya</i> takes place during this period. This takes</p>	<p>The <i>Rutu vyatita kaala</i> is a period unfit for conception, it is because the <i>yoni mukha</i> closes. Simultaneously a series of changes takes place in the <i>Artava</i> where now the <i>Navin- raja</i> is called as <i>Purana raja</i> which is later expelled. For the transformation of <i>Navina raja</i></p>	<p>The blood collected for whole month by both the <i>Dhamanis</i> (uterine vessels and their endometrial capillaries) assuming slight black color and</p>

<p>place with the help of <i>Beejavaha siras</i> which resembles the <i>sukshma kesha</i>. For the process of <i>Tarpana</i>, <i>kapha dosha</i> contributes predominantly. Here in this phase, there is predominance of <i>Prithvi mahabhuta</i> and <i>Jala mahabhuta</i>. This happens every month with an intention that if pregnancy occurs then the <i>Garbhashaya</i> is ready for implantation.</p>	<p>to <i>Purana raja</i>, <i>pitta dosha</i> plays a major role. During this period <i>Ushmata</i> of <i>Shareera</i> also increases. The modern concept supports this as during this period, progesterone hormone is at higher level than other hormones and it is also been observed that the basal body temperature rises during this period. Apart from this, a series of changes is seen in the components of the endometrium. Hence, during this period one can say that <i>Pitta dosha</i> is predominant.</p>	<p>specific order is brought downwards to vaginal orifice by <i>Vayu</i> for excretion. So, <i>Vata dosha</i> is predominant in <i>Raja srava kala</i>.</p>
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- Hence, all the three *Doshas* have the influence at different stages of *Rutu chakra*, any impairment in these *doshas* leads to *Artavavyapads*.
- Predominance of *Vata dosha* associated with *Pitta dushti* where *Vata* due to its *Ruksha guna* can lead to reduced quantity of *Artava*, leading to conditions like *Kshinartava/Artavakshaya*.
- If *Kapha* is predominant, then due to its *Sheeta guna & Snigdha guna* the function of *Pitta* is impaired due to which the *Artava darshana* does not takes place.
- *Acharya Vagbhata* has explained that this concept can be taken to understand that if *Kapha prakopa* is present then conditions like *Anartava* can takes place. *Artava* is *Agneya* in nature and *Pitta dosha* is predominant during the last phase of menstrual cycle. Hence, if there is a *Pittakshaya* and *Vata* or *Kapha vriddhi* during the last phase then conditions like *Artavakshaya*, *Anartava*, *Artava dushti* takes place.

Conclusion

Thus we see that menstruation has been very well explained in Ayurveda. The complete physiology of menstruation, age of onset, age of withdrawal, duration of the menstrual blood in a normal condition have all been explained in detail. Today with the development of modern tools and techniques, we are able to explain these things in terms of hormones and other physiological processes. But the concepts given by our ancient Acharyas can never be ignored. There are so many diseases in women which are associated with abnormal menstruation. Most of them are curable if diagnosed properly. The knowledge of pathophysiology plays important role in every aspect of treating & to understand the symptoms exhibited. It's necessary to know every pros & cons factors responsible for manifesting the disease. Here in this article an effort has been made to understand the factors involved in causing the menstrual disorders. As there is no manifestation of disease without overruling the involvement of *Tridosha's*, etc, the role of these in causing menstrual disorders cannot be neglected. *Agni*, the *Prana* of *shareera*, plays important role in formation & regulation of *Artava*. In case of *Agni dusti*, it hampers the process of regulation of menstruation. The *Vahana* (transportation) & *Nishkramana* (expulsion) of *Artava* is mainly carried through *Adusta srotas*. Whenever there is disturbance in the harmony of *Tridoshas* in *Rutu chakra*, the formation of *Artava* gets impaired causing certain conditions like *Artava kshaya*, *Anartava*, etc. Hence mainly Role of *Tridoshas*, *Agni & Srotas* have been explained, Further there is scope for elaboration of subject in same with other perspectives.

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