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A review of *Stree sharira* from classical Ayurvedic literature

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Abstract

Finding the proper etio-pathogenesis and treating gynaecological problems requires knowledge of *stree-sharira* (anatomy and physiology of the female reproductive system). The classics of Ayurveda have focussed on the practical application of knowledge and hence they discussed *sharira* rather than micro structural details. The name *Yoni* denotes the entire genital canal. Similar descriptions of the vagina are explained by modern science as a fibro-musculo-membranous sheath connecting the uterine chamber to the outside at the vulva. It contains the uterine secretory and menstrual blood excretory canal. *Garbhashaya* is located in the third *avarta* of the *yonis*, behind the bladder, between *pittashaya* and *pakvashaya*. *Sushruta* used the term *plalamntargata*, which is comparable to the ovaries or *beeja granthi*. Three *doshas* are in charge of the *rutuchakra* (menstrual cycle). The *Rajasrava kala* (menstrual cycle duration) can last anywhere between three and seven days. The mechanism of *artava pravrutti* has been clearly defined by Ayurveda. There is menstrual blood loss throughout the three to five or seven-day *Rajahkala* (menstrual phase), and *vata dosha* predominates. During this phase, the *drava* and *sara gunas* of the *pitta dosha* and the *chala guna* and *kshepana karma* of the *vata dosha* both function. *Ritu-kala*, or the proliferative phase, lasts for 12 or 16 days or the entire cycle. Even without menstruation, *navina rajah* (new cycles) are established at this time, and fertility chances are at their highest. These functions share similarities with the *kapha dosha*, indicating that *kapha* is the dominant *dosha* in this period.

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Introduction

The word *Sharira* includes both anatomy and physiology. Understanding the proper etiopathogenesis and therapy of gynaecological problems requires understanding of the female reproductive system's anatomy and physiology, or *stree-sharira*. The female reproductive system's anatomy is not fully described in the classical texts of Ayurveda. The classics of Ayurveda placed a strong focus on the practical application of knowledge; as a result, where it was required, they discussed *sharira* rather than micro structural details. Regarding *stree-sharira*, we discovered a variety of references. As a result, I attempted to critically evaluate as many references as possible and arrange them chronologically in this page.

Yoni

Classical texts use the term *yonī* to describe both the entire female reproductive system as well as specific parts separately.

Vyutpati – The term *yonī* comes from the root 'yuj' *dhatu*, which meaning to link or unite. Appearance - According to *Sushruta*, the *yonī*'s form resembles a hollow conch shell fragment called a *shankha nabhi*.

Three *avarta* (circles, envelopes, or compartments) are present. The third *avarta* is where *garbhashaya* is located. The whole genital route is what *Yoni* offers, according to this description. You are reminded of numerous genital route segments by *avarta* of *yonī* ^[1]. Modern science provides further specifics to explain similar Ayurvedic statements, such as the vagina's role as a fibro-musculo-membranous sheath connecting the uterine chamber to the outside at the vulva. It contains the uterine secretory and menstrual blood excretory canal. When a baby is delivered, the coitus organ shapes the birth canal. The canal is pointed upward and backward, producing a 450-degree angle with the horizontal. The canal has a diameter of approximately 2.5 cm and is largest in the upper section and smallest at the introitus. It has two lateral walls, an anterior wall, and a posterior wall. One anterior, one posterior, and two lateral fornices make up the four fornices. Its layers, which are organised from the inside out, are mucous coat, submucous layer, muscle layer, and fibrous coat ^[2].

Garbhashaya

Vyutpatti - It is a location where the foetus (*garbha*) lives or develops ^[3].

Synonyms - *Vipul srotasa* ^[4], *Garbhashaya* ^[5], *Kukshi* ^[6], *Dhara* ^[7]

Location – It is located in the third *avarta* of the *yonī*, behind the bladder, between *pittashaya* and *pakvashaya* ^[8, 9, 10].

Form - According to *Sushruta*, it has a mouth like a *rohita* fish. *Dalhana* has stated in his comments that the inside is hollow, precisely like the mouth of a *rohita* fish ^[11]. According to *Chakrapanidatta*, the uterus has a form similar to a *kshudra-tumbi phala*, which has its mouth pointed downward and is somewhat flattened ^[12]. Modern science has provided a more thorough explanation of the uterus ^[13]. One of the internal genital organs that a woman uses for menstruation, sperm transport and activation, embryo implantation, and childbearing.

Situation - Lie between the rectum and urine bladder in the pelvic cavity.

Shape - Pyriform or pear shaped antero-posteriorly flattened organ.

Size - In nulliparous – 3” x 2” x 1” – l x b x t and in parous – measured more

Weight - In nulliparous, it has weight of 45-50 grams and in parous, it is about 50-70 grams.

Parts - It is divided mainly into three parts.

1) Body or Corpus:

Fundus: Upper 2/3 part lying above the plane of the tubal attachment is called as 'fundus uteri'.

Cavity: It is triangular in figure, communicating into the lumens of the fallopian tubes on both sides.

2) Cervix or Neck: It is separated in to two parts -

- Supra vaginal portion
- Vaginal portion

3) Isthmus: It is constricted 1/4” (0.5 cm.) portion of

uterus lying at the joint of corpus and cervix.

Beeja granthi (ovary)

The ovary has not been specifically mentioned in any of the classical texts of Ayurveda. However, *Sushruta* used a term that is comparable to the anatomy of the ovary. *Beeja granthi* (ovary) is a part of the female genital organ where the *beeja* is kept, developed, and thrown out at the proper time. The aforementioned texts thus support the straightforward perception of the ovary. Various synonyms for ovary have been used throughout history, including *phala*, *antargata phala*, and *beeja granthi* ^[14].

Ovary - Modern science has explained about ovary in detail as described below ^[15]

Adult ovary, one on each side is a solid flat reniform structure.

1) Size: 3.5 cm. in length, 1.5 cm in thickness

2) Weight: 5-10 gm.

Each ovary consists

3) Two ends: tubal and uterine

4) Two borders: meso-ovarian and free posterior

5) Two surfaces: medial and lateral

Structure - 'Germinal epithelium' is the term for the sole layer of cubical cells that covers the ovary. The outer cortex and inner medulla make up the gland's substances.

Fallopian tube - Additionally, there are two fallopian tubes, one on each side of the uterus. Each tube measures around 10 cm in length and is located at the top free border of the wide ligament. The lateral end of the fallopian tubes have an opening that leads into the peritoneal cavity. The uterine cavity is accessible from the lumen's medial end. The ova enter the tube lumen by its abdominal ostium after they are released from the ovaries, and they proceed through the tube to the uterine cavity.

Functions - There are mainly two functions:

- Transport the gametes.
- To facilitate fertilization and survival of zygote through its secretion.

Rajah

Nirukti - *Ritu* is the term for the discharge that a female body makes at a specific period. *Raja* is the release via the female body during *Rutukala* ^[16].

Synonyms - In the past, many terms have been used to describe menstrual blood

1. *Artava* - Pure *artava* has a red tint similar to the *indragopa* insect's colouring ^[17]. The term *artava* is frequently used to refer to menstrual blood ^[18]. *Ritu* is a certain moment in time, and *bhavam* denotes the occurrence of that moment. Thus, the term *artava* as a whole refers to a bodily material that leaves at a particular time or interval ^[19].
2. *Shonita* - This term refers to menstrual blood and occurs at certain times and locations, such as the conclusion of the menstrual cycle following conception, the appearance of *shukra* and *shonita* at the right ages in males and females, respectively, etc ^[20].
3. *Asruk* - Menstrual blood is referred to by this name in *asrugdhara kala* and related conditions ^[21].
4. *Rajah*: Menstrual blood is referenced in the lines - 'excess discharge of *rajah* etc.' It says that things that stain the *yonī* or the vagina are referred to as *rajah* ^[22].
5. *Rakta*: Menstrual blood is referenced by the terms

"appearance or discharge of *rakta*, holding of *rakta* by *vata*," etc [23].

6. *Pushpa*: Blood passing via the vaginal channel is referred to by this precise phrase. This phrase has two meanings in contextual references from classical Ayurvedic texts, *antah-pushpa* (ovum), and *bahi-pushpa* (*artava*). There is a connection between these two denotations [24].

Rutuchakra (Menstrual cycle)

The term *Rutuchakra* from Ayurvedic books is comparable to 'menstrual cycle' from contemporary sources. Three *doshas* are understood to be in charge of it. *Rajah srava kala* is *Sanskrit* word for 'menstrual cycle duration'. There are several points of view on the length of the menstrual cycle. Menstruation is recorded by *Charaka* as lasting five days [25], by *Vagabhata* [26] and *Bhavamishra* [27] as lasting three days for *rajah srava*, and by *Harita* [28] and *Bhela* [29] as lasting seven days.

Artava pravritti mechanism - The blood collected for the entire month by both *dhamanees* turning a little shade of black and smelling alike is the source of *artava pravritti*, according to classical Ayurvedic theory, and is subsequently delivered to the *yoni* by the *apana* form of *vata* for excretion [30]. '*Sookshma kasha*' is a term used by *Vishvamitra* to describe how vessels appear on a microscopic level. *Vata dosha* has a major role in automating the menstrual cycle. The *Pitta dosha*'s *drava* and *sara gunas* as well as the *vata dosha*'s *chala guna* and *kshepana karma* are both active during this period.

Rutukala (proliferative phase) - It is the primary determinant of conception. Regarding the length of *Rutukala*, various scholars have varied viewpoints. *Rutukala* has been explained in the classics. The length of *Rutukala* is 12 days, according to *Sushruta* [31], *Vagbhata* [32], and *Chakrapani* [33]. *Rutukala* lasts for 16 days, according to *Bhavamishra* [34]. According to these texts, *rutukala* is counted from the first day of menstruation onset if it lasts sixteen days, and if it lasts twelve days, *rutukala* is counted from the fourth day of menstruation onset. *Kapha dosha* predominates during the proliferative period of the body known as *Rutukala*. By *snigdha* (unctuous) *guna* and *shleshakara karma*, *kapha dosha* is able to restore the endometrium's superficial and intermediate layers. As this is *upachaya*, or constructive activity, it is mostly carried out by *kapha*. The ovulation process, in which the *pitta dosha* predominates, is also a part of *rutukala*. *Rasa dhatu* is transformed into *rakta dhatu* by the action of the *pitta dosha* as a result of its *ushna* (hot) *guna* and *pakti karma*. The graffian follicles may mature as a result, and ovulation then occurs.

Rutuvyatita kala (secretory phase) - The term *Rutuvyatita kala* (secretory phase) refers to the period following *Rutukala*, during which there are less opportunities for conception. According to *Sushruta*, just as a lotus flower closes after dusk, so too does a woman's *yoni* become constricted after *Rutukala* and refuse to accept *shukra* into its interior chambers. Due to the fact that *Rutuvyatita kala* follows *Rutukala*, *pitta dosha* will predominate throughout this secretory phase [35]. The cervical mucus thickens and becomes more viscid during this period. The nervine reflex controls the whole hypothalamo-pituitary-ovarian-uterine axis endocrinology. According to Ayurveda, the activities of the *vata dosha* may be associated with this nervous reaction. *Vata dosha* hence plays a crucial role in all of the phases of the *Rutuchakra*.

Role of Tridosha in Rutuchakra

- 1) *Rajah srava kala* - *Vata dosha* is the primary effect on *Rajah srava kala*. Excretion will be seen as a function of the *apana* kind of *vata* since it is widely known that the movement of any material from one location to another is a function of the *vata dosha* [36].
- 2) *Rutukala* - The *navina raja* is established at the beginning of this region [37]. There is a good chance of fertilisation during this time. The phrase '*nave cha avasthite-raja*' can be interpreted as endometrial growth followed by ovulation. *Jala* (water or liquid material) and *prithvi* (solid substance) *mahabhoota* are necessary for regeneration. *Prithvi* and *jala* are the *pancabhautik* components of *Kapha dosha*. Therefore, we may say that the *kapha dosha*'s supremacy is confirmed during this time. According to *Dalhana* [38], *artava* is *saumya* in its early stages of creation, and *saumya dravyas* dominate *kapha*. Because of this, the *kapha dosha* rules this period.
- 3) *Rutuvyatita kala* - It is the third and follows *Rutukala*. During this time, *purana raja* is located in *garbhashaya* [39]. After *Rutukala*, *artava* turns into *agneya*, raising the body's basal temperature by 0.8 to 1.0 F. The progesterone hormone's thermogenic impact is responsible for this rise in temperature. *Dhatvagni*'s function is said to be enhanced during *Rutuvyatita kala* according to the Ayurvedic perspective. The *pancabhautika* component of *pitta* is *agni*. As a result, it becomes clear that *pitta dosha* is in charge of this period. It can be summarized as follows.

Table 1

Specific Stage	Duration	Condition of reproductive system	Dominant Dosh
<i>Rajah kala</i> - menstrual phase	3-5 or 7 days	Menstrual blood loss	<i>Vata Dosh</i>
<i>Rutukala</i> - proliferative phase including ovulation	12 or 16 days or whole month	Even without menstruation establishment of ' <i>navina rajah</i> ' (new cycles) optimum chances of fertilization	<i>Kapha Dosh</i>
<i>Rutuvyatita kala</i> - secretory phase	9 or 13 days	Presence of ' <i>purana rajah</i> ' and constriction of <i>yoni</i> , less chances of conception, raised body temperature	<i>Pitta Dosh</i>

Menstruation according to modern science [40] -

Etymology - The Greek word 'men', which means month, is where the word 'menstruation' comes from. The recurrent discharge of a bloody fluid from the uterus is what it literally means.

Periodic and cyclical shedding of progestational

endometrium accompanied by loss of blood' is one possible definition. (Jeffcoate's).

Synonyms - Catamenial flow, Menses, Period

Menopause and menarche onset ages - Menarche is said to happen between the ages of 11 and 15, with a mean of 13 years, in modern literature. Menopause is generally thought

to begin between the ages of 45 and 53. The lack of primordial follicles during this stage of life results in menopause. While androgen and gonadotropin levels are rising at this time, oestrogen levels are falling. The age of menarche has been steadily lowering over the past few decades as nutrition and environmental conditions have improved.

Menstrual blood has the following characteristics -

- Colour: According to contemporary texts, menstrual blood starts off pink before turning dark red.
- Aroma: Because menstrual blood contains nutrients like iron and glycogen as well as mucus, it has a distinct aroma.
- Amount: It's impossible to measure the total amount of blood lost, although on average, 50 ml are lost per month.
- Components: mostly arterial and venous in places. Dark crimson colour without clotting, containing pieces of endometrial tissue. Unpleasant odour brought on by sebaceous gland production and the breakdown of blood components. All blood components—aside from prothrombin and fibrinogen—as well as cervical mucus, vaginal discharges, and calcium are present.

Menstrual cycle length and frequency - The average cycle lasts 28 days, while periods of 3 to 5 weeks are also considered typical. The normal menstrual cycle lasts 4 to 5 days, although it can last up to 7 days.

Normal menstrual cycle - The normal menstrual cycle can be divided into two segments -

- 1) Ovarian cycle and
- 2) Uterine cycle, based on the organ under examination

Ovarian cycle may be further divided into

- a) Follicular phase and
- b) Luteal phase

Uterine cycle is divided into corresponding

- a) Proliferative and
- b) Secretory phase

Conclusion

In order to determine the proper etio-pathogenesis and therapy for gynaecological problems, one must be familiar with the anatomy and physiology of the female reproductive system, or *stree-sharira*. The classics of Ayurveda placed a strong focus on the practical application of knowledge; as a result, where it was required, they discussed *sharira* rather than micro structural details. The name *Yoni* denotes the entire genital canal. *Yoni's Avarta* outlines the many components of the genital route. Similar descriptions of the vagina are explained by modern science as a fibro-musculo-membranous sheath connecting the uterine chamber to the outside at the vulva. It contains the uterine secretory and menstrual blood excretory canal. *Garbhashaya* is located in the third *avarta* of the *Yoni*, behind the bladder, between *pittashaya* and *pakvashaya*. *Sushruta* used the term *plalamntargata*, which is comparable to the ovaries or *beeja granthi*. Three *doshas* are in charge of the *rutuchakra* (menstrual cycle). The *Rajahsrava kala* (menstrual cycle duration) can last anywhere between three and seven days. The mechanism of *artava pravritti* has been clearly defined by Ayurveda. There is menstrual blood loss throughout the three to five or seven-day *Rajah-kala* (menstrual phase), and

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References

1. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 5/55. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 65.
2. Padubidri V G, Daftary S, Shaw's Textbook of Gynaecology. Reprint. New Delhi: B. I. Churchill livingstone pvt ltd, 2000, 3-4.
3. Nanal P, Sartha Bhavaprakasha, Purva khanda, Garbha prakarana, 2/88. First edition. Pune: Shri gajanan book depo, 1929, 83.
4. Dr. Hariprasad Sharma, Kahyapa Samhita of Vriddha Jivaka, Sharirasthana, 5/10. Fifth edition. Varanasi: Chaukhamba Sanskrit Sansthan, 1994, 74.
5. Dr. Bramhanand Tripathi, Ashtanga Hridayam of Vagbhata, Sharirasthana, 1/8. Reprint. Delhi: Chaukhamba sanskrit pratisthan, 1995, 339.
6. Dr. Bramhanand Tripathi, Charaka Samhita of Agnivesha, Sharirasthana, 4/5. Reprint. Varanasi: Chaukhamba surbharati prakashan, 2009, 875.
7. Dr. Bramhanand Tripathi, Sharangadhara Samhita of Sharangadhara, Purvakhanda, 5/14. Reprint. Delhi: Chaukhamba sanskrit pratisthan, 2001, 54.
8. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 5/55. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 65.
9. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Chikitsasthana, 7/33. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 55.
10. Dr. Hariprasad Sharma, Kahyapa Samhita of Vriddha Jivaka, Sharirasthana, 7. Fifth edition. Varanasi: Chaukhamba sanskrit sansthan, 1994, 74.
11. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 5/56. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 65.
12. Agnivehsha. In: Charaka, Dridhbala, Charaka Samhita, Shariasthana, 3/5, Reprint. Vaidya Yadavji Trikamji Acharya, editor. Varanasi: Chaukhamba suarabharati prakashan, 2008, 316.
13. Padubidri V G, Daftary S, Shaw's Textbook of Gynaecology. Reprint edition, New Delhi: B. I. Churchill livingstone pvt ltd, 2000, 5-6.
14. Gupta A, Ashtanga Samgraha of Vagbhata, Sutrasthana, 26/32. Reprint. Varanasi: krishnadas academy, 1993, 196.
15. Padubidri V G, Daftary S, Shaw's Textbook of Gynaecology. Reprint edition. New Delhi: B. I. Churchill Livingstone Pvt Ltd; 2000. p. 10.
16. Dr. Bramhanand Tripathi, Charaka Samhita of Charaka, Chikitsasthana, 30/225. Reprint. Varanasi: Chaukhamba surbharati prakashan, 2009, 1046.

17. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sutrashtana, 14/22. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 69.
18. Amarkosha
19. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 2/19. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 15.
20. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sutrashtana, 14/9. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 65.
21. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sutrashtana, 14/6. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 64.
22. Dr. Hariprasad Sharma, Kahyapa Samhita of Vriddha Jivaka, Khilasthana, 9/17. Fifth edition. Varanasi: Chaukhamba sanskrit sansthan, 1994, 74.
23. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sutrashtana, 14/6. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 64.
24. Dr. Premavati Tewari, Ayurveda prasuti-tantra evam stree-roga, part ii, 9. Second edition. Varanasi: Chaukhamba orientalia, 1996, 46.
25. Dr. Bramhanand Tripathi, Charaka Samhita of Agnivesha, Chikitsasthana, 30/225. Reprint. Varanasi: Chaukhamba surbharati prakashan, 2009, 1046.
26. Dr. Bramhanand Tripathi, Ashtanga Hridayam of Vagbhata, Sharirasthana, 1/7. Reprint. Delhi: Chaukhamba sanskrit pratisthan, 1995, 338.
27. Nanal P, Sartha Bhavaprakasha, Purvakhanda, 2/ 239. First edition. Pune: Shri gajanan book depo, 1929, 30.
28. Harita Samhita of Harita, Sharirasthana, 1/8. Maharishi university of management vedic literatire collection, 339.
29. Bhela Samhita of Bhela, Sharirasthana, 3/ 3. Maharishi university of management vedic literatire collection,, 101.
30. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 3/8. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 27.
31. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 3/5. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 26-27.
32. Dr. Bramhanand Tripathi, Ashtanga Hridayam of Vagbhata, Sharirasthana, 1/26. Reprint. Delhi: Chaukhamba sanskrit pratisthan, 1995, 342-343.
33. Agnivehsha. In: Charaka, Dridhbala, Charaka Samhita, Chikitsasthana, 30/225, Reprint. Vaidya Yadavji Trikamji Acharya, editor. Varanasi: Chaukhamba suarabharati prakashan, 2008, 643.
34. Nanal P, Sartha Bhavaprakasha, Purvakhanda, 2/2, First edition. Pune: Shri gajanan book depo, 1929, 10.
35. Dr. Ambikadatta Shastri, Sushruta Samhita of Sushruta, Sharirasthana, 3/7. Reprint. Varanasi: Chaukhamba sanskrit sansthan, 2010, 27.
36. Dr. Bramhanand Tripathi, Ashtanga Hridayam of Vagbhata, Sutrashtana, 12/9. Reprint. Delhi: Chaukhamba sanskrit pratisthan, 1995, 172.
37. Dr. Bramhanand Tripathi, Charaka Samhita of Agnivesha, Sharirasthana, 4/7. Reprint. Varanasi: Chaukhamba surbharati prakashan, 2009, 876.
38. Agnivehsha. In: Charaka, Dridhbala, Charaka Samhita, Shariasthana, 3/3, Reprint. Vaidya Yadavji Trikamji Acharya, editor. Varanasi: Chaukhamba suarabharati prakashan, 2008, 270.
39. Dr. Bramhanand Tripathi, Charaka Samhita of Agnivesha, Sharirasthana, 4/7. Reprint. Varanasi: Chaukhamba surbharati prakashan, 2009, 876.
40. Padubidri V G, Daftary S, Shaw's Textbook of Gynaecology. Reprint. New Delhi: B. I. churchill livingstone pvt ltd, 2000, 37-39.