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## “Female reproductive system in terms of Artavaha Srotas and changes seen in Uterovaginal prolapse”

Pillewan S.

Professor, Kayachikitsa Department M. S. Ayurvedic College Hospital and Research Institute, Gondia.

### ABSTRACT:

Srotas are a unique feature of Ayurvedic medicine that describe the body's systems. Every living organism is made up of a Srotas. Garbhashaya and Artavavahi Dhamani are the Moolasthanas of Artavavaha Srotas, a physio-anatomical structure found in the female pelvic cavity. It is closely linked to the contemporary female reproductive system, in which the uterus, fallopian tube, and ovary are the most significant morphological and functional components. In two ways, the concept of Artavavaha Srotas has been defined i.e., macroscopically and microscopically. It is a reproductive tract where menstruation, fertilisation, and foetal development take occur on a macroscopic level. And for microscopic level we must understand physiological aspect. Several organs of the female reproductive system are described in detail in Ayurvedic Samhitas. In Ayurveda, the name Bhaga refers to the Smaramandira and Yoni, which are related to Vulva. Smaratpatra is found in the top region of the vagina, near the clitoris, which is a highly stimulated during sexual activity. Yoni is made up of three different Avarta. Vagina and related structures are included in Prathamavarta, cervix and accompanying structures are included in Dwitiyavarta, and the uterus and its appendages are included in Tritiyavarta. The organ that contains the Garbha is known as the Garbhashaya (the foetus). Human body undergoes changes since the foetal stage and with the progression of age some problems also arise in the body systems. Acharyas have mentioned clearly about the gynaecological disorders under the term Yonivyapads. Laxity of vaginal canal and uterine descent is one of the conditions commonly seen in post-menopausal age with more of Vata predominance and Mamsa shaithilya. In this article, we are trying to explain the female reproductive system in terms of Artavaha Srotas according to Ayurveda and changes seen in it during Uterovaginal prolapse.

**KEYWORDS:** Artavavaha Srotas, Garbhashaya, Artavaha dhamani, Bhaga, Yonivyapada, Uterovaginal prolapse.

### Corresponding Author:

**Dr.Surekha Pillewan**

Professor Kayachikitsa,  
Department M. S. Ayurvedic College Hospital  
and Research Institute, Gondia.

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**INTRODUCTION:**

Ayurveda is defined as a system that employs natural principles to assist people maintain their health by maintaining their mind, body, and spirit in perfect harmony with nature. According to Acharya Sushruta, a physician should be knowledgeable in all branches of Ayurveda so that he or she can diagnose and cure any condition. To treat any disease, one must have a thorough understanding of the disease's pathophysiology.<sup>[1]</sup> However, the physician must first have a thorough understanding of the anatomy and physiology of the organ involved in the sickness in order to treat it effectively and efficiently. Srotas are a unique feature of Ayurvedic medicine that describe the body's systems. The major channels of the body are known as Srotas.<sup>[2]</sup> Srotas are hollow chambers in our bodies that transfer Parinam prad dhatu from one location to another. The secretory channels or Srotas are the systems or parts of the biological systems that are responsible for the secretions or movement of Dhatus. Srotas are a collection of channels that make up a living organism. The Artavavaha Srotas have diverse structures or sections that are analogous to the female reproductive system, according to Ayurveda. There are several descriptions available of many organs of the female reproductive system in Ayurvedic Samhitas. In Ayurveda, the name Bhaga refers to Yoni, which is equivalent to Vulva. It appears to be a description of the complete vulva's diameter.<sup>[3]</sup> Yoni's structure is similar to that of a conch shell: it's wider at the beginning, kinked in the centre, and then broader again at the end. It's said to be made up of three Avarta. Vagina and related structures are included in Prathamavarta, cervix and accompanying structures are included in Dvitiyavarta, and the uterus and its appendages are included in Tritiyavarta. Yoni is shaped like a conch shell and is divided into

three Avartas, with Garbhashaya located in the third Avarta. Garbhashaya refers to the uterine cavity, which is shaped like a Rohita fish.<sup>[4]</sup> The disorders of the female genital system, as well as the treatment of these ailments, are accorded equal importance in Ayurveda. In Yonivyapada Chikitsa, Acharya Charaka discussed all gynaecological disorders. The uterus has a restricted range of motion by nature. As a result, its location in the pelvis is influenced by the structures around it. This is a prevalent occurrence among postmenopausal women. The pelvic muscles and ligaments that support the female genital tract herniate externally when they become slack and atonic.<sup>[5]</sup> Yonivyapad is a phrase used in Ayurveda to describe uterine prolapse. It is a major health risk for women, affecting millions of women throughout the world. It is, in fact, the third most prevalent reason for hysterectomy. According to studies, 50 percent of parous women have some degree of urogenital prolapse, with 10-20 percent of them being symptomatic. Prasamsini Yonivyapad is one of the twenty Yonivyapada mentioned in ancient books by our Acharyas. It has been linked to both primary and secondary uterine prolapse.

**Detailed view of Female reproductive system in terms of Srotas**

The Garbhasaya and Artavavahi Dhamani are mentioned in Ayurveda as a Moolasthan of Artavavaha Srotas.<sup>[6]</sup> From the beginning, Garbhashaya is primarily responsible for Artava's creation, production, and expulsion. Both the uterus and the ovaries have the same anatomical and functional properties, and both have the same pathological and clinical circumstances following damage. Artavavahi Dhamani can be defined as a fallopian tube that conducts Artava (ovum) towards the uterus during the menstrual cycle, as well as ovarian and uterine vessels.

<sup>[6]</sup>The word Dhamana refers to contraction, so in this study, the fallopian tube contracts and conducts the ovum, thus acting as an Artavavahi Dhamani.<sup>[7]</sup> Yoni is derived from the term "Yuj" Dhatu. It's a word that meaning "to unite" or "to link".<sup>[8]</sup> Yoni's form has been described as "Shankhnabhyakruti" by Acharya Sushruta and Acharya Vagbhata.<sup>[9]</sup> This indicates that it is constricted at the start, dilated in the middle, and narrowed towards the uterine extremities. In the inner side, there are three Aavartas.<sup>[10]</sup> These look like rugae or ridges. Yoni's third Aavarta contains Garbhashaya. The Yoni's form, according to Acharya Kashyapa, should be "Shakhatakruti".<sup>[11]</sup> He's also mentioned Yoni's different oddities in terms of form. Yoni is a term used by Vagbhata to describe Stri-Janendriya (female genitals). Yoni is also known as Apatyapatha, which means "vaginal".<sup>[12]</sup>

In several situations, he referred to Yoni as Garbhashaya. In Garbhaprakaran, Bhavprakasha uses the words Manobhavagara for Yoni and Manobhavagarmukha for Yonimukha. According to him, Manobhavagara has three Nadies: Samirana, Chandramukhi, and Gauri Nadi. Samirana Nadi is the primary Nadi. As a result, the term Yoni was utilised by Acharyas for a variety of purposes. Yoni (vagina), Garbhashayamukha (cervical canal), and Garbhashayya (uterus) are three circular folds or subdivisions that go from exterior to interior and symbolise the whole reproductive system of a female.<sup>[13]</sup> Yoni is said to be comparable to the Bhaga, according to Dalhana. Yoni's Parinaha, according to him and Acharya Charaka, is 12 Anguli. Yoni's synonyms include Bhaga, according to Amarkosha. According to Madhavnidana's description of Bhaga, Bhaga may be defined as the ischio-rectal fossa. The ischio-rectal fossa's base is pointed toward the perineum's surface, and its apex is at the

point where the obturator and anal fascia meet.<sup>[14]</sup> Kaviraja Gangadhar, a commenter, referred to "Bhaga" as "Strilingam." According to Vaitaran, Basti is located beneath the Bhaga, whereas Garbhashaya is located above it. The definition of Bhagandara Vyadhi was given by Acharya Sushruta. According to him, Bhagandara Vyadhi occurs in Bhaga, Guda, and Basti as a result of the Daran of these regions.<sup>[15,16,17]</sup> Two Yonikarnika Peshies have been clarified by Acharya Dalhana. These may be found on the Yonimukha's side (one on each side). These are spherical. Apatyapatha is also known as Yonimarga or vaginal canal. Apatyapatha is made up of four Peshies, according to Acharya Sushruta. Two Peshies are on the inside and two are on the outside of the Mukha, both of which are round. According to Dalhana, the Peshies that lie outdoors on the Mukha might be considered Yonikarnika. Garbhashaya, according to Vachspatyama, is the Garbha-aadhar Sthan, or a spot that supports a growing foetus. Garbhashayya is the synonym he has provided for Garbhashaya. The term Ashaya in Garbhashaya refers to a cavity or space in a certain organ that is a main functional region or cavity of the body. Garbhashaya is a hollow region in the body that aids in the implantation and growth of Garbha (foetus). It does not relate to a particular organ, but rather to the hollow space where numerous bio physiological functions occur. Garbhashaya is referred to as Vipulstrotas Kukshi by Acharya Kashyapa while discussing the formation of organs. In Sharira Sthana, Acharya Charaka explains the Garbha Utpatti in great depth. Kukshi, he claimed, is nothing more than Garbhashaya, the area where Garbha is formed and developed. He's also referred to it as Antkukshi. Garbhautapatti was referred to as Garbhashaya and Kukshi by Acharya Vagbhata. In Sharira Sthana, Acharya

Sushruta refers to the Garbhashaya as "Kshetra." In the Samhita's Sharirasthana, Acharya Vagbhata refers to the Garbhashaya as Garbhakoshtha. In relation to Garbhashaya, Dalhan has utilised the phrases Phala and Phalyoni. While describing Ashmari Chikista, Acharya Sushruta highlighted the position of Garbhashaya as it rests on the Parshwa of Basti. He also claims that Garbhashaya is located between Pittashaya and Pakwashaya and is home to Garbha. Vagbhata mentions the position of Garbhashaya in Yoni's Tritriya Aavarta and its shape as Rohita Matsya Mukha, which has a confined mouth and a broader belly above, in Sharira Sthana. <sup>[16,17]</sup> The word Antargatphalama, which may be translated as ovary and fallopian tube, is referenced in the Sushruta Samhita. The ovaries are a pair of tiny organs that are found at the lateral walls of the pelvic cavity. The creation of egg cells and the discharge of hormones are both handled by these organs. Ovulation is the process through which the egg cell is liberated. The cervix, or lower entrance of the uterus, and the Vagina can also be considered Aartavavahini dhamani since menstrual blood passes through them during women's monthly periods. Two tubes connect the ovaries to the uterus and are known as the Fallopian tubes. When an ovum reaches maturity, the follicle and ovary walls burst, allowing the ovum to exit and enter the uterus. <sup>[18]</sup>

#### **Changes seen in Yonivyapad such as Prasramsini, Phalini and Mahayoni**

In Uttartantra, Acharya Sushruta discussed Yoni Roga and divided twenty Yoni Roga according to Dosha. He also characterised Prasramsini individually and explained the unique reason of Kshobhana and difficult labour. Vaginal discharge and cervical decline are the most prominent features. This form of uterine prolapse can occur clinically in both first and second degree uterine prolapse,

although difficult labour is possible in second degree uterovaginal prolapse. Sushruta used one term for Mahayoni: "Ativivrata," which indicates excessive dilation of the vaginal entrance, resulting in massive uterovaginal portion prolapse, which can be linked to third or fourth degree (procidentia) uterine prolapse. Because it has the appearance of a fruit, Acharya named it Phalini for vaginal wall prolapse. Sushruta indicated that incompatible male female sex organs are the general cause of all Yoniroga, and excessive coitus is a particular cause of vaginal wall prolapse. Dusthita implies displacement of the pelvic organ, Nisrata indicates descent from its location and descending outside, and Vivrata means enlargement of the vaginal opening, according to Arunadatta. <sup>[19,20]</sup>

#### **Clinical features of Prasramsini Yoni**

Pitta Vitiation is the cause of this condition. Any irritation creates profuse vaginal secretions, and labour is difficult in this state. Sransana (excessive vaginal discharge), Kshobhana (extreme irritation), Dukha Prasava (difficulty in labour or irregular birth canal), and Pitta vitiation generates Osha (burning in a specific place) Chosha (throbbing pain), according to Acharya Dalhana. Prolapse of the reproductive organs is a symptom of this illness. Yoni refers to the vaginal and uterine walls, hence vaginal and uterine prolapse can both be discussed in Prasramsini Yoni. Prolapse of the anterior and posterior vaginal walls before birth is typical in women who have a history of extensive defecation straining or who have congenitally weak supports. The first degree of uterine prolapse does not cause obstruction in labour and is usually corrected in late pregnancy, but the second degree causes non-dilation of the cervix due to excessive congestion caused by compression of the presenting part over the cervix due to its displacement, which is one of the most

serious complications of labour. In light of the foregoing, Prasramsini Yoni Vyapada may be linked to second-degree uterovaginal prolapse.<sup>[21,22]</sup>

### Clinical features of Phalini Yoni

According to Acharya Sushruta, Phalini occurs when a young lady has coitus with a man who has a big size of genital. Dalhana also goes by the names Aphalini and Apraja. The aggravation of the doshas has a direct consequence, such as dryness and prickling discomfort in Vata, burning feeling and heat in Pitta, and moistness and itching in Kapha. 16 According to Bhava Prakasha, a young immature female has an oestrogen shortage, inadequate reproductive organ development, absence of glandular secretion, collagen tissue, and a lower elastic ability of supporting muscle and fascia. When a male performs coitus with a girl aggressively, and the girl constricts the vagina due to fear or humiliation (vaginism), it can result in perineal or vaginal tearing.<sup>[22,23]</sup>

### Clinical features of Mahayoni

Vayu, vitiated by coitus in an unequal site and posture, produces Vishtambhana of Yoni, according to Acharya Charaka. A dry, frothy bloody discharge develops with discomfort in this illness. Mahayoni is a disorder characterised by muscle protuberance in Yoni and discomfort in the joints and pelvic area. According to Acharya Sushruta, the Yoni is greatly dilated in this case due to the aggravation of all the Doshas.<sup>[22,23]</sup>

### DISCUSSION:

Ayurveda is a thoroughly practical discipline, all of the principles discussed in Ayurveda are either connected to the maintenance of a healthy individual's health or the healing of certain ailments. In the same way, understanding physiology and pathology is critical for every medical discipline. Medicinal

and health sciences can only be applied in the broadest sense; they cannot be purely theoretical in any way. This may be why, in recent years, contemporary medical disciplines have returned to the Ayurvedic approach to anatomy, stressing practical anatomy over theoretical anatomy. Srotas are described primarily in terms of functional anatomy, so that a single Srotas may readily represent the whole system. Garbhashaya and Artava vaha dhamani are the roots of artava-vaha Srotas. The organs of the female reproductive system include the ovaries (female gonads); the uterine (fallopian) tubes, or oviducts; the uterus; the vagina; and external organs, which are collectively called the vulva.<sup>[24]</sup> Garbhashaya refers to the uterus or womb, which serves as a reservoir for artava (menstrual blood) in the endometrium until menstruation. Garbhashaya is located in the third whorl of the yoni (vagina) and has the shape of Rohita Matasya Mukhakruti, according to Acharya Sushruta (rohu fish). According to Acharya Dalhan, the aperture is small and the hollow is huge in size. Acharya Sushruta has given the position of Garbhashaya in relation with Basti and Pakwashaya.<sup>[25]</sup> Grossly, this Basti can be taken as Bladder. Smaratpatra is found in the top region of the vagina, near the clitoris, which is a highly stimulated/erectile structure during sexual activity. In Ayurvedic texts, the word Yoni refers to both the overall reproductive system and particular parts. In this case, the Artava is formed under the effects of oestrogen and FSH. The pituitary and ovary, which release hormones, are also part of Artava vaha srotas. When menstruation occurs, artava flows from the uterine cavity and into the cervix and vagina. The Artava-vaha damani (passage), which is the root of artava-vaha srotas, also includes the uterine cavity, cervix, and vagina. Finally, we can refer to the entire female reproductive system as Artavaha Srotas. The illnesses of

the female genital system, as well as their treatment, are important in Ayurveda. Prasamsini is a disorder that affects women intellectually, socially, and physically, making it difficult for them to go about their daily lives. Primary and secondary genital prolapse have been described in modern science as having signs and symptoms that are comparable to those of Prasamsini Yonivyapad. Mithyachara Dosha accumulates as a result of Mithyachara Dosha, resulting in the development of a specific ailment. Uterovaginal prolapse is caused by insufficient bearing down effort during vaginal birth, numerous vaginal deliveries, straining during defecation, substantial weight lifting during the valsalva procedure, and systemic illnesses such as persistent cough. Rasa, Rakta, Mansa, and Meda Dhatu Dushti are affected, leading Updhatu Artava, Kandara, Sira, and Snayu to be malnourished. This causes connective tissue, like as muscles and ligaments, to degenerate, resulting in uterovaginal prolapse.<sup>[26]</sup> Prasamsini, Phalini, and Mahayoni have been linked to uterovaginal prolapse in Ayurveda. Vaginal wall descent, at least at the level of introitus, which is second degree vaginal wall prolapse, is a distinct characteristic of Phalini Yoni. Yoni has muscle protuberance in Mahayoni, which causes discomfort in the joints and groin. According to Acharya Sushruta, the Yoni is abnormally dilated in this case, hence it might be linked to third or fourth degree uterovaginal prolapse.<sup>[27]</sup>

### CONCLUSION:

In Ayurveda, the fundamental aim of anatomy is to comprehend the structural relevance of treating a patient. Ayurveda explains the female reproductive system in terms of Artavavaha Srotas, which include fundamental components, physio-anatomy, and clinical disorders. It may be determined in two ways: macro and micro. It is the

reproductive tract as a conducting point of view macro-scopically, and the capillary network of the uterus as a nutrition point of view microscopically. The concept of the ancient Acharyas was quite precise; they outlined the organ system in detail, as well as their anomalies. The precise causal element and significant feature of all Yoni vyapada have been addressed by Acharyas. Uterovaginal prolapse can be linked to Prarasmini yoni, Mahayoni, and Phalini yoni.

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