

A CONCEPTUAL STUDY OF *ARTAVAVAHA DHAMANĪ* IN RELATION TO THE VASCULAR SUPPLY OF FEMALE REPRODUCTIVE ORGANS

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ABSTRACT

Background: *Artavavaha Dhamanī* is frequently equated with the uterine arteries, ovarian arteries, or uterine tubes, yet these one-to-one identifications do not adequately explain the classical text or the distributed vascular anatomy of the female reproductive tract. **Objective:** To examine the classical description of *Artavavaha Dhamanī* and develop a reasoned anatomical correlation with the blood supply of the uterus, endometrium, ovaries, uterine tubes, cervix, and vagina. **Methods:** A structured narrative review was undertaken using the *Suśruta Saṃhitā*, major editions and translations, peer-reviewed Ayurvedic discussions, standard anatomical sources, and contemporary studies of uterine, ovarian, tubal, and endometrial vasculature. Classical terms were interpreted by textual context, function, laterality, injury effects, and compatibility with observed anatomy rather than by lexical resemblance alone. **Results:** The strongest correlation is not a single named artery or the uterine tubes. It is a paired uterine

–ovarian arterial axis and its anastomotic, organ-specific branches. Within this network, uterine arteries and the arcuate–radial–basal/spiral arterial tree provide the most direct substrate for visible menstrual *Artava*; ovarian and tubal branches account for follicular function, ovum transport, collateral perfusion, and fertility. The classical injury signs–infertility, intolerance of intercourse, and loss of *Artava*–are compatible with severe injury to this integrated pelvic reproductive unit but are not specific for obstruction of one vessel. Conclusion: *Artavavaha Dhamanī* is best understood as a functionally defined, bilateral reproductive arterial network centred on uterine–ovarian inflow and endometrial microcirculation. This model preserves the conceptual boundaries between *Dhamanī* and *Srotas*, explains the plurality of reproductive functions, and avoids the anatomical errors that rigid equivalence creates.

KEYWORDS: *Artava*; *Artavavaha Dhamanī*; *Artavavaha Srotas*; uterine artery; ovarian artery; endometrial vasculature; female reproductive anatomy.

1. INTRODUCTION

Classical anatomical concepts are most useful in contemporary scholarship when they are neither treated as vague metaphors nor forced into exact equivalence with modern structures. *Artavavaha Dhamanī* illustrates this problem. The term has been variously mapped to uterine arteries, ovarian arteries, uterine tubes, or the entire female reproductive system. Each proposal captures part of the physiology, but a satisfactory correlation must explain the wording of the primary text, the paired arrangement, the movement and manifestation of *Artava*, the stated consequences of injury, and the actual vascular interdependence of the reproductive organs.

In the *Dhamanīvyākaraṇa Śārīra*, Suśruta describes twenty-four *Dhamanīs* arising from the *Nābhi*, separates *Dhamanī*, *Sirā*, and *Srotas* as categories, and assigns downward movement of *Śukra* and *Artava* to the descending group.^[1] The distinction is important: a structure cannot be labelled a *Dhamanī* merely because it participates in a channel system. Dalhaṇa's commentary and modern critical editions preserve this functional–anatomical reading while warning against collapsing closely situated pathways.^[2] An English translation is useful for comparison, although translation choices such as “duct,” “artery,” or “ovarian product” should not be allowed to determine the correlation in advance.^[3]

2. Review Question and Objectives

3. MATERIALS AND METHODS

Sources were appraised by a four-part framework: textual proximity to the classical statement; anatomical compatibility; physiological explanatory power; and consistency with the effects of injury. This was a conceptual synthesis rather than a systematic review or meta-analysis. No claim of exhaustive retrieval is made, and no modern structure was accepted solely because its English name resembled a Sanskrit term.

4. Classical Basis of the Concept

4.1 *Dhamanī*, *Sirā*, and *Srotas*

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Translation: Twenty-four *Dhamanīs* are described as arising from the *Nābhi*. *Dhamanī*, *Srotas*, and *Sirā* are distinct because their roots, specialized functions, and scriptural descriptions differ.^[1]

This passage provides the method for correlation. Similar location or participation in transport does not erase categorical difference. *Srotas* denotes a rooted pathway or system of conveyance; *Dhamanī* is a more specific conducting structure characterized in this chapter by direction and function; *Sirā* is separately treated. The modern arterial system is therefore a plausible comparator for *Dhamanī*, but the comparison must remain contextual rather than universal.

4.2 Downward *Dhamanīs* and female *Artava*

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Translation: The downward-moving *Dhamanīs* convey, among other substances, *Śukra* and *Artava*. In women, the corresponding pathways carry and discharge blood called *Artava*.^[1]

For the present passage, the strongest immediate referent of *Artava* is visible menstrual blood. Other Ayurvedic contexts use *Artava* more broadly for the female reproductive factor, including the ovulatory or seed-like component. That wider semantic field matters for fertility, but it should not displace the explicit association with blood and cyclical discharge in this chapter. A correlation that explains ovum transport while failing to explain endometrial bleeding is therefore incomplete.

4.3 Root and injury signs of *Artavavaha Srotas*

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Translation: The two *Artavavaha* pathways have their root in the *Garbhaśaya* and the *Dhamanīs* that carry *Artava*. Injury produces infertility, intolerance of intercourse, and loss of *Artava*.^[1]

The grammar is decisive. *Garbhaśaya* and *Artavavahi Dhamanīs* are both named as roots; consequently, the *Dhamanīs* cannot simply be the uterus itself. Nor is the whole *Artavavaha Srotas* reducible to the vessels, because the organ and the vessels jointly ground the system.

The number “two” is compatible with bilateral organization, but it should be read as a paired functional arrangement rather than as a dissection count of exactly two arterial tubes.

4.4 A working conceptual definition

On the textual evidence, *Artavavaha Dhamanī* may be provisionally defined as the paired, specialized conducting component that delivers blood and reproductive support to the female generative organs and participates in the manifestation or discharge of *Artava*. This definition is deliberately narrower than the entire reproductive system and broader than one named artery.

Classical clue	Anatomical implication	Interpretive limit
“Two” pathways	Bilateral reproductive inflow and paired organ supply are relevant.	Does not prove that only two macroscopic vessels exist.
<i>Garbhaśaya</i> and <i>Artavavahi Dhamanī</i> are both roots	The uterus is a target/root organ linked to a vascular conducting component.	The vessel cannot be equated with the uterus or whole tract.
Carrying and discharging blood called <i>Artava</i>	Uterine perfusion and endometrial microvasculature require priority.	Menstrual efflux also depends on tissue, endocrine, and outflow factors.
Infertility, intercourse intolerance, and loss of <i>Artava</i> after injury	The implicated unit must support menstruation, fertility, and pelvic organ integrity.	These manifestations are clinically nonspecific.
<i>Dhamanī</i> distinct from <i>Sirā</i> and <i>Srotas</i>	Arterial pathways are a stronger primary comparator than veins or a whole channel system.	Classical categories are not identical to modern histological definitions.

5. Vascular Supply of the Female Reproductive Organs

5.1 Uterus and endometrium

The uterus receives its principal arterial inflow from the paired uterine arteries, usually branches of the anterior division of the internal iliac arteries or a common trunk in that territory. Each artery passes medially in the base of the broad ligament, crosses superior to the ureter near the cervix, and divides into ascending and descending branches. The ascending branch courses tortuously along the uterine margin and anastomoses near the uterine cornu with branches of the ovarian artery; descending branches supply the cervix and upper vagina.^[9,10]

The uterine artery is variable in origin, branching, and dominance. It may arise from an umbilical trunk, directly from the anterior internal iliac division, or, less commonly, from other pelvic branches. This variability weakens any claim that a single textbook vessel is the exclusive structural equivalent of a classical functional category.^[11]

Within the myometrium, arcuate arteries run circumferentially and give rise to radial arteries that penetrate toward the endometrium. Radial branches terminate as relatively straight basal arteries supplying the stratum basalis and as spiral arteries supplying the stratum functionalis. The latter remodels across the menstrual cycle under ovarian steroid influence. Their constriction, breakdown of the functionalis, haemostasis, and subsequent vascular repair are central to menstruation. The endometrial arterial tree is therefore the most immediate modern substrate for the appearance and periodic discharge of blood designated as *Artava*.

5.2 Ovaries

The paired ovarian arteries usually arise from the abdominal aorta below the renal arteries and descend in the suspensory ligaments of the ovaries. They supply the ovaries, contribute tubal branches, and anastomose with uterine arterial branches. Ovarian perfusion supports follicular development, ovulation, corpus luteum function, and steroidogenesis; these functions indirectly govern endometrial proliferation, secretory transformation, and shedding. Recent anatomical review emphasizes dense collateralization and substantial variation rather than an isolated terminal arterial pattern.^[12]

The ovarian arteries alone cannot account for the visible discharge of menstrual blood, yet excluding them produces an equally inadequate model. Loss of ovarian arterial function can impair the endocrine and gametogenic determinants of the cycle even when uterine vessels remain patent. Thus, ovarian inflow is part of the broader reproductive arterial axis, whereas the uterine microvascular bed remains the principal effector of menstrual bleeding.

5.3 Uterine tubes and mesosalpinx

The uterine tubes receive segmental branches from both the uterine and ovarian arteries through the mesosalpinx. A cadaveric study of 17 Thiel-embalmed specimens found one to three tubal branches, anastomoses between uterine and ovarian territories, and no consistent single axial “tubal artery.” The ampulla and fimbriae were supplied mainly from ovarian arterial branches.^[13] These observations are important because they make a literal equation of the paired *Artavavaha Dhamanīs* with the two uterine tubes anatomically and conceptually weak. The tube conducts the oocyte and embryo, but it is not a blood-carrying *Dhamanī*; it has its own vascular supply, a branching arcade.

5.4 Cervix, vagina, and collateral circulation

The cervix is supplied by cervicovaginal branches of the uterine artery with contributions from vaginal arteries. The vagina has an anastomotic supply from vaginal, uterine, internal pudendal, and middle rectal branches. These vessels support tissue integrity and may contribute to symptoms after pelvic injury, but they do not generate menstruation. Anatomical injection studies also demonstrate communication across and within the uterine sides, reinforcing the concept of a collateral organ network rather than two isolated end arteries.^[14]

5.5 Venous and lymphatic pathways

Uterine and vaginal venous plexuses drain mainly to the internal iliac veins; ovarian veins drain to the inferior vena cava on the right and the left renal vein on the left. Lymphatic drainage is similarly distributed. These pathways are clinically relevant to congestion, infection, metastasis, and surgery, but the classical separation of *Dhamanī* from *Sirā* argues against designating the venous plexus as the primary correlate. They are associated components of *Artavavaha Srotas*, not the strongest equivalent of *Artavavaha Dhamanī*.

Organ/region	Principal arterial supply	Relevance to the concept
Uterus	Paired uterine arteries; utero-ovarian anastomoses	Major bilateral inflow; perfusion of myometrium and endometrium.
Endometrium	Arcuate → radial → basal and spiral arteries	Direct vascular substrate for cyclic growth, breakdown, haemostasis, and repair.
Ovary	Paired ovarian arteries with uterine anastomoses	Supports follicle, ovulation, corpus luteum, and hormonal control of the endometrium.
Uterine tube	Segmental uterine and ovarian tubal branches	Supports oocyte/embryo transport; no consistent single axial tubal artery.
Cervix and upper vagina	Descending uterine/cervicovaginal and vaginal branches	Supports outflow tissues and pelvic integrity; secondary to menstrual generation.
Venous/lymphatic plexuses	Parallel venous and distributed lymphatic drainage	Part of the regional transport system, but a weaker primary match for <i>Dhamanī</i> .

6. Evaluation of Competing Anatomical Correlations

A credible correlation should explain all major textual features without depending on selective quotation. The alternatives are therefore compared by their capacity to account for blood transport, menstrual expression, reproduction, bilaterality, and injury effects.

Candidate correlation	Supporting features	Major contradiction	Assessment
Uterine tubes alone	Paired; central to fertilization and embryo transport.	Tubes do not carry blood as their luminal content; isolated tubal damage does not usually cause amenorrhoea.	Insufficient.
Uterine arteries alone	Paired principal uterine inflow; direct link to endometrium and menstruation.	Does not fully represent ovarian endocrine/gamete functions or variable collateral supply.	Strong core, but too narrow.
Ovarian arteries alone	Paired; essential to follicular and endocrine function.	Only indirect relation to menstrual efflux and uterine outflow.	Important component, not complete.
Venous or lymphatic plexus	Distributed transport and pelvic organ linkage.	<i>Dhamanī</i> is textually distinguished from <i>Sirā</i> ; menstruation depends primarily on arterial microvascular events.	Secondary association.
Hypothalamic–pituitary–ovarian axis	Explains cyclic regulation and endocrine amenorrhoea.	A regulatory axis is not an anatomical blood-carrying <i>Dhamanī</i> .	Physiological context, not correlation.
Uterine–ovarian arterial network plus endometrial bed	Paired inflow, anastomoses, reproductive organ supply, and direct mechanism for menstrual bleeding.	Network is more complex than a literal count of two vessels.	Best integrated model.

7. Proposed Correlation Model

The most coherent model has three anatomical levels. At the macrovascular level, the paired uterine and ovarian arteries are present. At the regional level, the utero-ovarian, tubal, cervical, and vaginal branches and anastomoses are present. At the microvascular effector level are the uterine arcuate, radial, basal, and spiral arteries, together with ovarian and tubal microcirculation. These levels function as a single reproductive vascular axis but do not contribute equally to every expression of *Artava*.

anatomical sequence = Paired uterine + ovarian inflow → utero-ovarian/tubal anastomotic network → organ-specific microcirculation → ovarian competence, endometrial cycling, and menstrual expression.

Visible menstrual *Artava* is most directly related to the uterine and endometrial portion of this sequence. The broader reproductive meaning of *Artava* is supported by ovarian and tubal perfusion. This tiered model resolves an apparent contradiction in earlier interpretations: the uterine artery is central without being exclusive, and the ovary and tube are included without being mistaken for the *Dhamanī* itself.

The number “two” is also better handled at the level of paired inflow than at the level of named branches. Both uterine and ovarian vessels are bilateral, while their branches form variable networks. Classical paired enumeration can therefore express right–left organization and functional symmetry without predicting a modern angiographic count.

8. Interpretation of *Viddha Lakṣaṇa*

8.1 *Vandhyatva* (infertility)

Severe vascular injury can compromise fertility at several sites: follicular function may decline with ovarian ischaemia; tubal viability or motility may be impaired; endometrial growth and receptivity may be reduced; and uterine healing may produce scarring. This multilevel explanation fits the classical use of infertility better than a single-organ theory. Nevertheless, unilateral vessel injury may be compensated by extensive collaterals, and infertility has many nonvascular causes. The sign is therefore compatible with injury to the proposed network but not diagnostic of it.

8.2 *Artavanāśa* (loss of menstruation)

Amenorrhoea can follow failure of ovarian endocrine function, destruction of the endometrium, occlusion of the genital outflow tract, pregnancy, systemic illness, or neuroendocrine disturbance. In the vascular model, major bilateral compromise can interrupt ovarian function or render the endometrium unable to cycle and shed. Conversely, occlusion of selected uterine arterial branches may not eliminate menstruation because ovarian and contralateral collaterals can maintain perfusion. Contemporary descriptions of endometrial physiology show that menstruation is a coordinated inflammatory, haemostatic, vasoconstrictive, and reparative event, not passive emptying of a vessel.^[15]

Studies of the cycling and early pregnant uterus further show that uterine vascular adaptation is dynamic and linked to implantation and placentation. Abnormal remodelling can contribute to infertility, miscarriage, and obstetric disease, supporting a system-level rather than pipe-like interpretation.^[16]

8.3 *Maithunāsahiṣṇutva* (intolerance of intercourse)

This manifestation is sometimes translated as dyspareunia, but the Sanskrit permits a broader sense of inability to tolerate intercourse. Pelvic vascular injury may coexist with tissue trauma, inflammation, scarring, congestion, or neural injury and thereby produce pain. Yet

this symptom is the least vessel-specific of the three. It should be treated as evidence that the root structures form an integrated pelvic reproductive unit, not as proof that a particular artery has been transected.

8.4 Evidence from uterine artery embolization

Uterine artery embolization offers a partial clinical analogy because it deliberately reduces uterine perfusion. Most patients retain uterine viability owing to collateral circulation, while a minority experience transient or permanent amenorrhoea or altered ovarian reserve, particularly when ovarian collaterals are involved. Reviews report heterogeneous effects on ovarian reserve and fertility, so embolization cannot be used as direct validation of a classical concept.^[17] It does, however, demonstrate why a network model predicts variable outcomes better than a single-vessel model.

9. Critical Appraisal of Existing Ayurvedic Literature

Recent Ayurvedic reviews have usefully assembled the classical references and have consistently drawn attention to the dual meanings of *Artava*, the importance of *Garbhaśaya*, and the triad of injury manifestations.^[4-8] Their chief limitation is recurrent anatomical overreach. Some papers move from “two” directly to the two uterine tubes; others list the uterus, tubes, ovaries, vessels, and hormones as interchangeable equivalents without specifying which corresponds to *Dhamanī* and which belongs to the wider *Srotas*. Such aggregation preserves comprehensiveness but reduces falsifiability.

A second weakness is reliance on symptom resemblance. Because infertility and amenorrhoea occur in endocrine, genetic, uterine, ovarian, tubal, and systemic disorders, they cannot independently localize the classical root to a modern structure. A third weakness is limited engagement with collateral vascular anatomy. The uterine, ovarian, and tubal territories are not isolated; their anastomoses are precisely what make rigid equivalence unstable. The present model improves conceptual precision by assigning different modern components to different levels of the classical account.

10. Clinical and Educational Implications

For anatomical teaching, *Artavavaha Dhamanī* should be introduced as a functional correlation, not as a synonym in a bilingual glossary. Students may first identify the paired uterine and ovarian arteries, then trace their utero-ovarian and tubal communications, and finally relate the endometrial arterial tree to menstrual physiology. The distinction between vessel, organ, and system can then be revisited: *Artavavahi Dhamanī* is the conducting

vascular component; *Garbhaśaya* is a root organ; *Artavavaha Srotas* is the larger reproductive channel system.

For surgery and intervention, the model underscores preservation of collateral supply during salpingectomy, ovarian surgery, uterine artery ligation, hysterectomy, and embolization. It also discourages deterministic interpretations. An intact named artery does not guarantee normal menstruation or fertility, and occlusion of one vessel does not necessarily produce classical *Viddha Lakṣaṇa*. Outcomes depend on laterality, collateralization, tissue reserve, endocrine status, and the extent of associated trauma.

In Ayurvedic clinical reasoning, correlation should not be used to relabel every menstrual disorder as arterial disease. *Srotoduṣṭi* is a functional pathological construct with a wider scope than vascular stenosis. Modern vascular findings may illuminate one dimension of the concept, but they neither exhaust it nor substitute for established diagnostic evaluation of abnormal uterine bleeding, amenorrhoea, infertility, or pelvic pain.

11. Research Agenda

The proposed model is testable at several levels. First, textual studies should compare early manuscripts and commentaries to clarify whether “two” consistently denotes paired channels, paired roots, or a conventional enumeration. Second, corrosion-cast, micro-CT, or high-resolution angiographic studies could map the continuity of uterine, ovarian, and tubal arterial territories in reproductive-age specimens. Third, Doppler studies could examine how uterine and ovarian flow indices relate to endometrial development and menstrual phenotypes, while avoiding claims of direct measurement of a classical entity. Fourth, prospective studies following pelvic vascular procedures could document menstruation, ovarian reserve, sexual pain, and fertility together rather than as isolated outcomes.

Any such programme should predefine the level of correlation being tested. Evidence of a uterine artery cannot, by itself, validate the whole *Artavavaha Srotas*; evidence of menstrual blood cannot establish a tubal identity; and endocrine cyclicity cannot prove an arterial equivalence. Clear level-matching is the most important methodological safeguard.

12. Limitations

This study is interpretive. Classical Sanskrit anatomical terms arose within a different epistemic and observational framework, so complete equivalence with contemporary vascular

13. CONCLUSION

DECLARATIONS

REFERENCES

- 878

2. Suśhruta. Suśhruta Saṃhitā with the Nibandhasaṅgraha commentary of Dalhaṇa. Ācārya YT, editor. Varanasi: Chaukhambha Sanskrit Sansthan; 2014. Śārīrasthāna, chapter 9.
3. Suśhruta. Suśhruta Saṃhitā. Murthy KRS, translator. Vol. 1. Varanasi: Chaukhambha Orientalia; 2010. Dhamaṇīvyākaraṇa Śārīra, chapter 9.
4. Madhukar LS, Nivrutti BA. A critical review on Artavavaha Srotas as concept of female reproductive system in Ayurveda. Interv. Gynecol. Womens Healthc., 2018; 1(2): 000107. doi:10.32474/IGWHC.2018.01.000107.
5. Honagannavar A, Kulkarni P. Physio-pathological understanding of Aartavavaha Srotas. J. Ayurveda Integr. Med. Sci., 2018; 3(5): 136–141. doi:10.21760/jaims.v3i5.13831.
6. Hiremath P, Giritammanavar JT, Patil MR. A review on Moolastana of Artavavaha Srotas in Ayurveda. J. Ayurveda Integr. Med. Sci., 2021; 6(6): 140–145.
7. Durgeshvari, Singh DK, Kumar K. A conceptual review of Artavavaha Srotas and its Viddha Lakshan. J. Ayurveda Integr. Med. Sci., 2023; 8(3): 69–72. doi:10.21760/jaims.8.3.12.
8. Kumari N, Mishra V, Priyanka, Gupta SS. A conceptual review of Artavavaha Srotas in Ayurveda and modern view. Int. Ayurvedic Med. J., 2023; 11(11): 2828–2831. doi:10.46607/iamj2711112023.
9. Hoare BS, Mikes BA, Khan YS. Anatomy, abdomen and pelvis: female internal genitals. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 [updated 2025 Feb 18; cited 2026 Aug 30]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554601/>
10. Chaudhry R, Chaudhry K. Anatomy, abdomen and pelvis: uterine arteries. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 [updated 2023 Sep 4; cited 2026 Aug 30]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK482267/>
11. Liapis K, Tasis N, Tsouknidas I, et al. Anatomic variations of the uterine artery: review of the literature and their clinical significance. Turk. J. Obstet. Gynecol., 2020; 17(1): 58–62. doi:10.4274/tjod.galenos.2020.33427.
12. Konarska-Włosińska M, Nasser A, Ostrowski P, Bonczar M, Ochwat K, Walocha J, et al. Arterial blood supply of ovaries: a comprehensive review. Folia Morphol. (Warsz)., 2025; 84(2): 294–299. doi:10.5603/fm.101167.
13. Tamash Y, Hammer N, Varga I, Supilnikov A, Iukhimetc S. Arterial blood supply of the mesosalpinx appears segmentally organized in absence of uterine tubes arteries. Physiol. Res., 2022; 71(6 Suppl 1): S107–S113. doi:10.33549/physiolres.935015.

14. Kristek J, Kachlik D, Sticova E, Fronek J. Contralateral and ipsilateral arterial vasculature of the human uterus: the pilot results of an anatomical study. *Physiol. Res.*, 2022; 71(6 Suppl 1): S89–S97. doi:10.33549/physiolres.934972.
15. Maybin JA, Critchley HOD. Menstrual physiology: implications for endometrial pathology and beyond. *Hum Reprod. Update.* 2015; 21(6): 748–761. doi:10.1093/humupd/dmv038.
16. Massri N, Loia R, Sones JL, Arora R, Douglas NC. Vascular changes in the cycling and early pregnant uterus. *JCI Insight.* 2023; 8(11): e163422. doi:10.1172/jci.insight.163422.
17. Czuczwar P, Stępnia A, Wrona W, Woźniak S, Milart P, Paszkowski T. The influence of uterine artery embolisation on ovarian reserve, fertility, and pregnancy outcomes: a review of literature. *Prz. Menopauzalny.*, 2016; 15(4): 205–209. doi:10.5114/pm.2016.65665.