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ROLE OF *APANA VATA DUSHTI* IN THE ETIOPATHOGENESIS OF *YONIVYAPAD* AND ITS MODERN NEURO-HORMONAL CORRELATION

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ABSTRACT

Introduction: Female reproductive disorders are common health problems that significantly affect quality of life and reproductive health. *Ayurveda* describes these disorders under *Yonivyapad*, where disturbance of normal pelvic physiological functions is considered an important causative factor. Modern medicine explains similar conditions through hormonal imbalance, autonomic dysfunction, inflammation, stress-related endocrine changes, and weakness of pelvic support structures. **Methods:** A narrative review was conducted using classical *Ayurvedic* texts such as *Charaka Samhita*, *Sushruta Samhita* and *Ashtang Hridaya* along with modern literature related to gynecology, reproductive endocrinology, neurophysiology, and women's health. **Results:** The review suggests that disorders described under *Yonivyapad* such as dysmenorrhea, amenorrhea, infertility, recurrent pregnancy loss, and uterine prolapse can be understood through both *Ayurvedic* and modern perspectives. Functional similarities were observed with neuroendocrine imbalance, altered uterine activity, autonomic nervous system imbalance, inflammatory responses, and pelvic floor dysfunction. **Discussion:** The concept of *Apana Vata dushti* offers a meaningful framework for understanding complex nature of gynecological disorders. By combining *Ayurvedic* wisdom with modern scientific knowledge

may help to develop better approaches for prevention and management. Further clinical and interdisciplinary researches are essential to validate these correlations and their practical relevance in women's healthcare.

KEYWORDS: *Apana Vata*, *Yonivyapad*, *Ayurveda*, HPO axis, PCOS, Neurohormonal correlation.

INTRODUCTION

Ayurveda defines health as a state of equilibrium of the *Dosha*, *Dhatu* and *Mala* essential for well-being.[1] Disturbance of this balance leads to disease.[2] In women's reproductive health, *Vata Dosha* holds prime importance because it controls all types of movements and physiological regulation in the body.[3] Among its five subtypes, *Apana Vata* plays crucial role in upholding normal functions of the pelvic organs. It is primarily associated with menstruation, ovulation, conception and childbirth.[4]

The term *Yonivyapad* in *Ayurveda* refers to a broad group of disorders affecting the female reproductive system.[5] *Ayurvedic* classics describes twenty *Yonivyapad*, representing different disturbances of reproductive physiology.[5,6] These are thoroughly described in classical texts such as *Charak Samhita*, *Sushruta Samhita*, and *Ashtang Hridaya*. These disorders include conditions like *Udavartini*, *Putraghni*, *Arajaska*, *Mahayoni* each representing a disturbance in normal reproductive physiology.

Modern science explains these conditions by linking to the hormonal imbalance, autonomic nervous system dysfunction, and structural abnormalities. Still many gynecological issues arise without structural pathology, which makes difficult to explain. In such cases, *Ayurvedic* concepts may provide valuable insight.

Gynecological disorders constitute a major global health concern and can significantly affect fertility, menstrual health, psychological well-being and quality of life. Even though *Yonivyapad* and the role of *Apana vata* are well described in *Ayurveda*, their connection with modern neuro-hormonal mechanism is still not well established. Understanding this correlation can help to explain gynecological disorders and management in a better way.

This review aims to explore the role of *Apana Vata Dushti* in the etiopathogenesis of *Yonivyapad* and its possible correlation with neuro-hormonal regulation, which has not been adequately explored in previous literature.

AIM

To explore the role of *Apana Vata dushti* in relation to *Yonivyapad* and its association with modern neurohormonal mechanism.

OBJECTIVE

1. To understand the classical concept of *Apana Vata* in female reproductive physiology.
2. To analyze the role of *Apana Vata* in the etiopathogenesis of *Yonivyapad*.
3. To explore its correlation with modern neurohormonal mechanism.

METHODOLOGY

This is a narrative review based on classical *Ayurvedic* texts such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*. Modern scientific information was collected from standard textbooks and databases such as PubMed and Google Scholar using relevant keywords. The collected data were analyzed and compared to explore correlations between *Ayurvedic* concepts and modern neuro-hormonal mechanisms.

CONCEPT OF APANA VATA

In *Ayurveda*, *Apana vata* is one of the five subdivisions of *Vata Dosha*. It is situated in lower part of the body, mainly in intestines (*Pakwashaya*), urinary bladder (*Basti*), reproductive organs (*Yoni*) and anal region (*Guda*). This localization highlights its central role in excretory and reproductive physiology.[7]

It is responsible for the downward movement (*adhogati*) and helps in physiological processes such as menstrual flow (*Artava pravritti*), Ovulation and conception, Childbirth (*Garbha nishkraman*), urination and defecation.[8] Proper functioning of *Apana Vata* ensures the smooth coordination of these natural processes. When *Apana Vata* becomes disturbed due to dietary, lifestyle, psychological, or pathological factors, its normal function get hampered. These dysfunctions are described in *Ayurveda* under *Yonivyapad*.

Nidana of Apana Vata Dushti (Etiological factors)[9]

The vitiation of *Apana Vata* occurs due to various *Aharaja* (Dietary), *Viharaja* (lifestyle) and *Mansika* (Psychological), and gynecological factors.

- ***Aharaja Nidana* (Dietary factors)**

1. Intake of *ruksha* (dry), *laghu* (light), and *sheeta ahaar* (cold food)
2. *Vishamashana* (Irregular eating habits)

3. ***Alpahara*** **(Inadequate nutrition)**

These habits create dryness and weakness in pelvic tissues, resulting in painful menstruation, irregular cycles, constipation and eventually leads to infertility.

- ***Viharaja Nidana*** **(Lifestyle factors)**

1. *Vegavadharana* (Suppression of natural urges)
2. *Ati vyayam* (Excessive physical exertion)
3. *Ratrijagarana* (Night awakening)

Such practices interfere with natural downward flow of *Apana Vata* and may contribute to menstrual irregularities, urinary disturbances, pelvic discomfort and congestion.

- ***Manasik Nidana*** **(Psychological factors)**

1. *Chinta* (stress, anxiety)
2. *Bhaya* (fear)
3. Emotional instability

Mental disturbance affects the nervous system and hormonal balance leading to menstrual irregularities, amenorrhea, and reduced fertility.

- ***Striroga*** **specific causes (Gynecological factors)**

1. *Garbhapata, Garbhastrava* (Repeated abortions, miscarriages)
2. *Atimaithuna* (Excessive sexual activity)
3. Improper *Sutika paricharaya* (postpartum care)
4. Trauma during delivery
5. Untreated genital infections
6. Repeated instrumentation

Such factors may weaken the pelvic support structures and disturb normal uterine function causing Yonivyapad like *Mahayoni* (Prolapse of uterus), *Vandhyatwa*(Infertility), *Artava vikara*(Menstrual disorders)

Samprapti of Apana Vata Dushti in Yonivyapada[3,4,5,10,11]

Nidana sevana

(Diet +Lifestyle+Stress+Trauma)

Vata prakopa

(Aggravation of *Vata dosha*)

⬇

Sthana samshraya in Pelvic region

(*Pakwashaya*, *Basti* and *Yoni*)

⬇

Apana Vata Dushti

⬇

Functional disrurbances

1. *Gati vaishamya* (irregular movement)
2. *Bala kshaya* (loss of functional strength)
3. *Sthana vaigunya* (tissue vulnerability)

⬇

Types of Disturbance

*a. Avarana (*obstruction*)*

b. *Pratiloma* Gati (reverse movement)

c. *Kshaya* (depletion)

d. *Ati pravritti* (excessive activity)

⬇

Artavaha srotas dushti

(Impaired reproductive function)

⬇

Yonivyapad

The pathophysiology of *Yonivyapad* can be explained through the disturbance of *Apana Vata*, which is subtype of *Vata dosha*. It regulates normal reproductive and excretory functions in the pelvic region. Repeated exposure to the etiological factors (*Nidana sevana*) leads to *Vata prakopa*(aggrevation of *Vata dosha*). As a result of this, *Apana vata* loses its normal downward movement (*adhogati*) and functional balance. This disturbed state may present as *Gati vaishamya*(Altered/irregular movements), *Pratiloma gati* (reverse flow), *Avarana*(obstruction in normal pathway), *Kshaya*(functional depletion) or *Ati pravritti* (excessive activity).

These disturbances affect the normal physiological processes of menstruation, ovulation, conception and childbirth. Further progression affects the *Artavavaha srotas* and associated *dhatu* such as *Rasa* and *Rakta* leading to menstrual irregularities, pelvic pain, infertility,

recurrent pregnancy loss and other gynecological disorders described under *Yonivyapad*. Depending on the predominant pattern of *Apana vata dushti*, various *yanivyapad's* such as *Udavartini, Arajaska, Putraghni, Mahayoni* may develop.

From modern perspective, these functional disturbances may be correlated with imbalance in hypothalamic-pituitary-ovarian (HPO)axis and disturbance in autonomic nervous system. It may also relate to altered prostaglandin activity, impaired uterine contractility and weakening of pelvic support structure.

The different patterns of *Apana vata dushti* may be interpreted through modern clinical mechanisms as follows:

Table No. 1: *Ayurvedic* concepts of *Apana Vata Dushti* and their possible modern correlations.[5,7]

***Ayurvedic* concept**	**Possible modern correlation**
Pratiloma gati	Dysmenorrhea, retrograde menstrual flow, spasmodic uterine contractions
Kshaya	Ovarian insufficiency, reduced endometrial response
Avarana	Tubal blockage, pelvic obstruction, endocrine inhibition
Ati pravritti	Menorrhagia, excessive uterine bleeding

Table No. 2: *Samprapti ghataka* in *Yonivyapad.*[3,5,11]

Component	**Description in *Yonivyapad***
Dosha	*Predominantly Vata, especially Apana vata*
Dushya	*Rasa, Rakta, Mamsa, Artava*
Sthana	*Yoni, Garbhashaya, Basti, Pakwashaya*
Srotas	*Artavavaha srotas, Rasavaha srotas, Raktavaha srotas*
Srotodushti prakara	*Sanga, Vimargagamana, Ati pravritti,Kshaya*
Agni	*Mandagni/ Vishamagni*
Udbhava sthana	*Pakwashaya*
Vyakti sthana	*Yoni/ Garbhashaya*
Roga marga	*Abhyantara*
Swabhava	*Chirakari (*chronic in nature*)*

Table No. 3: Correlation of different *Yonivyapad* with *Apana Vata Dushti.*[12,13]

Yonivyapad	**Apana Vata dushti**	**Possible Clinical correlation**
Udavartini	*Pratiloma gati* (reverse flow)	Severe dysmenorrhea, spasmodic pain,
Putraghni	*Kshaya/Vaigunya* affecting *garbhashaya*	Recurrent pregnancy loss
Arajska	*Kshaya* / obstruction of *Artava pravritti*	Amenorrhea, scanty menses
Mahayoni	Weakness (*Daurbalya*) of supporting structures	Uterine prolapse, vaginal laxity
Paripluta	*Vata* with *Pitta prakopa*	Pelvic pain, inflammation, dyspareunia

Karnini	*Apana vata dushti* with *Kapha sanga*	Cervical erosion
Suchimukhi	Constriction due to *vata*	Narrowed vaginal canal, difficult coitus/ labour
Vandhya	*Chronic* Apana dushti	Infertility due to ovulatory or uterine factors

MODERN NEUROHORMONAL CORRELATION

Modern gynecology explains female reproductive physiology through a coordinated interaction among hormones, neural pathways and local biochemical mediators. Normal reproductive system depends on hormonal regulation, effective neural control, and structural pelvic support. Disturbance in any of these mechanisms may result in menstrual irregularities, infertility or pelvic dysfunction. These functional disturbances may be conceptually correlated with *Apana Vata dushti.*

1. Hypothalamic- Pituitary- Ovarian axis (HPO axis)[14,24]

The menstrual cycle is mainly regulated by hypothalamic-pituitary-ovarian axis. The hypothalamus releases gonadotropin releasing hormone (GnRH), which stimulates the pituitary gland to secrete follicle stimulating hormone (FSH) and luteinizing hormone (LH). These hormones act on the ovaries to regulate follicular development, ovulation and the production of estrogen and progesterone. Any disturbance in this axis can result in menstrual irregularities, anovulation, infertility. Such disturbances may be functionally correlated with *Apana vata* which is responsible for menstrual regularity and reproductive functions.

2. Prostaglandin and uterine activity[15,24]

Prostaglandins are important biochemical mediators involved in uterine contractions during menstruation. Excessive prostaglandin production may cause increased uterine contractions, reduce uterine blood flow, and produce significant pain as seen in dysmenorrhea. *Apana Vata Vaigunya*[16] shows a stronger functional correlation with dysmenorrhea, particularly *Udavartini Yonivyapad*, where disturbed menstrual flow and painful menstruation are prominent features.

3. Autonomic nervous system regulation[17]

Pelvic organ function is regulated by the autonomic nervous system. Sympathetic activity promotes contraction, whereas parasympathetic activity supports relaxation and coordinated function. Imbalance between these systems can lead to abnormal uterine activity, pelvic pain,

and cycle disturbances. This neural regulation may be functionally compared with the role of *Apana Vata* in maintaining coordinated pelvic function.

4. Stress and Hypothalamic- Pituitary- Adrenal (HPA) axis[18]

Psychological stress activates the hypothalamic- pituitary- adrenal axis, resulting to increased cortisol levels. Elevated cortisol levels may suppress reproductive hormones and disturb menstrual patterns, leading to delayed menstrual cycles, reduced reproductive potential and hormonal imbalance. *Ayurveda* also recognizes stress, fear, anxiety as important aggravating factors for *Vata dosha*, especially Apana vata, thereby contributing to reproductive disorders.

5. Pelvic floor support and neural integrity[19,20,24]

Normal pelvic organ function depends on strength of pelvic floor muscles, connective tissues, and intact nerve supply. Weakness or dysfunction in these structures may result in uterine prolapse, and associated urinary symptoms. This condition can be correlated with impaired *Apana Vata*, which is responsible for maintaining pelvic stability and support, as described in *Mahayoni yonivyapad*.

6. *Apana vata* and PCOS[21,22,24]

Polycystic ovarian syndrome involves anovulation, hyperandrogenism, insulin resistance, low grade inflammation and altered LH pulsatility. Follicular maturation is arrested, leading to menstrual irregularities and impaired fertility. From an *Ayurvedic* perspective, this condition may be interpreted as a combined pathology involving *Kapha Avarana*, *Apana Vata vaigunya*,[16] and *Artava dushti*. Thus, PCOS may be viewed as an interplay of metabolic obstruction and altered reproductive regulation.

DISCUSSION

The present review explains *Apana Vata* as a functional force that coordinates pelvic and reproductive functions. This view may help explain clinical presentations such as pelvic pain, cycle disturbances, subfertility, and pelvic support disorders even when no major structural abnormality is found.[23] Therefore, the *Ayurvedic* concept provides a practical and functional perspective that may support modern medical understanding.

One important strength of this concept is its integrative nature. Female reproductive health depends on the coordinated interaction such as cyclical hormonal activity, neural regulation, uterine motility, emotional state, bowel function, and pelvic floor strength. Disturbance in

one of these domains may affect the others, which is similar to the concept of *Apana Vata Dushti* described in *Ayurveda*.

Instead of attempting equivalence between *Ayurvedic* terms with modern concepts, it is better to understand them through functional comparison. For example, imbalance in the HPO axis, autonomic nervous system dysfunction, inflammation, and weakness of pelvic tissues may be viewed as parallels mechanism that reflect dysregulation of *Apana Vata*. This perspective may help in developing future interdisciplinary research.

From a treatment perspective, this understanding may support comprehensive management strategies that include dietary regulation, stress management, pelvic floor strengthening, menstrual health awareness and individualized *Ayurvedic* interventions.[24] However, these integrative strategies require scientific validation through well-designed clinical studies.

Future work should focus on observational studies, biomarker research, and controlled clinical trials are needed to understand the applicability of *Apana Vata*-based concepts in modern gynecological practice.

CONCLUSION

The concept of *Apana vata dushti* provides a practical framework for understanding disturbances in female reproductive health. It highlights the importance of coordinated physiological processes in maintaining normal pelvic function and offers a broader approach in interpreting gynecological disorders. This integrative approach may help promote comprehensive and individualized care in women's health.

REFERENCES

1. Sushruta, Dalhana. *Sushruta Samhita*. Edited by Acharya YT. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutrasthana, 15(41).
2. Agnivesha, Charaka, Dridhabala. *Charaka Samhita*. Edited by Acharya YT. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutrasthana, 9(4).
3. Agnivesha, Charaka, Dridhabala. *Charaka Samhita*. Chakrapanidatta commentary. Acharya YT, editor. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutra Sthana 12.
4. Vagbhata. *Ashtanga Hridaya*. Edited by Kunte AM, Navre KR. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutrasthana, 12(9).

5. Agnivesha, Charaka, Dridhabala. *Charaka Samhita*. Chakrapanidatta commentary. Acharya YT, editor. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Chikitsa Sthana, 30.
6. Sushruta. *Sushruta Samhita*. Dalhana commentary. Acharya YT, editor. Varanasi: Chaukhambha Sanskrit Sansthan; 2019; Uttara Tantra 38.
7. Agnivesha, Charaka, Dridhabala. *Charaka Samhita*. Chakrapanidatta commentary. Acharya YT, editor. Varanasi: Chaukhambha Surbharati Prakashan; 2017; Chikitsa Sthana 28/10.
8. Vagbhata. *Ashtanga Hridaya*. Edited by Kunte AM, Navre KR. Varanasi: Chaukhambha Surbharati Prakashan, 2017; Sutrasthana, 12(9).
9. Agnivesha, Charaka, Dridhabala. *Charaka Samhita*. Chakrapanidatta commentary. Acharya YT, editor. Varanasi: Chaukhambha Surbharati Prakashan, 2017; Chikitsa Sthana 28(15,16,17).
10. Sushruta Samhita; Shonitashukra Shuddhi Sharira Adhyaya. In: Acharya YT, editor. Varanasi: Chaukhambha Surbharati Prakashan, 2017.
11. Vagbhata. Ashtanga Hridaya; Sarvaroga Nidana Adhyaya. In: Hari Sadashiva Shastri Paradakara Bhishagacharya, editor. Varanasi: Chaukhambha Surbharati Prakashan, 2017.
12. Sharma H, editor. *Kashyapa Samhita*. Varanasi: Chaukhambha Sanskrit Sansthan, 2016. Khila Sthana (Yonivyapad/Striroga).
13. Gaikwad S. Yonivyapad in Ayurveda: classical classification and its relevance in modern gynecology - a comprehensive review. Int J Ayurveda Gynecol., 2024; 1(3): 5-8.
14. Hall JE, Hall ME. Guyton and Hall Textbook of Medical Physiology. 14th ed. Philadelphia: Elsevier; 2021. Hypothalamic-pituitary-ovarian axis; autonomic nervous system; endocrine regulation.
15. Singh M, Yadav RS, Pandey S. A critical review of Apanavata with special reference to menstrual physiology. Int J Ayurveda Pharma Res., 2023 Jul; 11(7): 74-76.
16. Anoop AK, Vaidya A. Scooping review on the symptoms of Apana vayu vaigunya in relation with Atiyana. J Pharm Res Int., 2021 Dec 13; 33(56A): 318-27.
17. Shinde SM. Impact of Vata Dosha on nervous system: an Ayurvedic analysis. Int J Res Pharm Ayurv Sci., 2024; 3(5): 34-39.
18. Sarita M, Byadgi PS, Mishra SP. Stress and fertility-Past conviction, present cognizance and future orchestrations. Int J Res Pharm Sci., 2019; 10(3): 2388-2398.
19. Agrawal L, et al. Comparative study of perineal laxity and Yoni-vyapads. Int J Health Sci Res., 2018; 8(5): 342-349.

20. Dutta DC. Textbook of Gynecology. 8th ed. New Delhi: Jaypee Brothers Medical Publisher, 2022. Menstrual disorders; PCOS; infertility; pelvic organ prolapse
21. Berek JS. Berek and Novak's Gynecology. 16th ed. Philadelphia: Wolters Kluwer, 2020. Gynecological endocrinology; chronic pelvic pain; PCOS.
22. Pal M, Chaudhary P, Solanki SK. Ayurveda perspective on Nidan, Samprapti and Chikitsa of polycystic ovarian syndrome (PCOS). Eur J Biomed Pharm Sci., 2020; 7(11): 258-262.
23. Sajeev S, Pratap A, Lekshmi R. Role of Vata in fertility. World J Pharm Res., 2022; 11(16): 803-809.
24. Howkins J, Bourne G. Shaw's Textbook of Gynecology. 17th ed. New Delhi: Elsevier, 2018. Menstrual abnormalities; pelvic pathology; infertility.