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AN OBSERVATIONAL STUDY TO ASSESS THE STATUS OF APANA VATA IN KASTARTAVA

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INTRODUCTION

Primary dysmenorrhoea or "***Kashthena Muchyati Iti Kashtartava***" i.e., the condition where Artava is shaded with great difficulty and pain is termed as "Kashtartava".

Primary dysmenorrhoea is defined as cramping pain in the lower abdomen occurring just before or during menstruation, in the absence of other reproductive diseases

Prevalence of primary dysmenorrhoea in India is -**50-80.78%**

Sushruta specifies that apana Vayu in Prakrutaavastha it performs samyak Malamootradi Vikshepanadi karma. And in vaigunya avastha it contributes to mainly disorder. Addressing imbalances in Apana Vayu contributes to alleviating both the mental and physical symptoms to dysmenorrhoea leading to enhancement in overall well being of women's health

Apana Vayu Vaigunya (functional imbalance), leading to improper expulsion and pain. Disturbances in Apana Vayu (Vaigunya) disrupt the normal flow of menstrual blood, causing pain and discomfort. It affects a significant percentage of menstruating individuals, leading to reduced quality of life, absenteeism, and mental stress

Primary dysmenorrhea, referred to in Ayurveda as *Kashtartava* ("Kashtena Artavam Muchyati Iti Kashtartava"), describes menstruation associated with significant pain and difficulty. It is a common gynecological complaint among women of reproductive age, typically beginning a few years after menarche and associated with ovulatory cycles.

The prevalence of primary dysmenorrhea in India ranges from 50% to 80%. Modern science attributes the pain primarily to the excessive production of prostaglandins, especially prostaglandin F2α, by the endometrium, resulting in heightened uterine contractions, ischemia, and pain. Hormonal fluctuations, particularly involving estrogen and progesterone, influence the production of these mediators.

In Ayurveda, primary dysmenorrhea is correlated with *Kashtartava*, attributed to the vitiation of *Vata*, particularly *Apana Vata*, responsible for the downward movement and expulsion of menstrual blood. Disturbances in *Apana Vata* (*Vaigunya*) disrupt the normal flow of menstrual blood, causing pain, bloating, fatigue, and irritability.

Importance of assessment of apana vayu vaigunya

- Identifying the root cause and its severity
- Comprehensive diagnosis
- Guidelines for personalized management
- Research and evidence generation –revalidation of fundamental principle
- Prevention of reoccurrence
- Empowering women's health
- The present observational study underscores the critical involvement of *Apana Vayu Vaigunya* in the pathogenesis of *Kashtartava* (primary dysmenorrhea). The results demonstrate a statistically significant increase in symptoms of *Apana Vayu* dysfunction during menstruation, corroborating classical Ayurvedic descriptions of *Vata* disturbance affecting the normal downward movement of *Artava*. These findings suggest that *Apana Vayu* imbalance is not merely an associated phenomenon but serves as a central pathological factor in the manifestation of dysmenorrhea.
- Early detection of *Apana Vayu* disturbances through structured clinical assessments offers an opportunity for timely intervention. Ayurvedic management strategies focusing on restoring the functional integrity of *Apana Vayu*—such as dietary regulations (*Pathya-Apathya*), lifestyle modifications (*Dinacharya* and *Ritucharya* adherence), therapeutic Yoga practices, and the use of specific herbal formulations—may play a vital role in alleviating symptoms and improving reproductive health. Addressing *Apana Vayu Vaigunya* holistically may not only reduce menstrual discomfort but also minimize associated psychological and physical stressors, thereby enhancing the overall quality of life for women affected by *Kashtartava*.
- Moreover, this study contributes significantly to the contemporary scientific revalidation of Ayurvedic principles by aligning classical theories with observed clinical outcomes. It reinforces the relevance of traditional Ayurvedic diagnostic and therapeutic frameworks in the modern context, supporting the integration of Ayurveda into multidisciplinary approaches for managing women's health disorders. Further large-scale, multicentric studies are recommended to deepen the understanding of *Apana Vayu* dynamics and to establish standardized, evidence-based Ayurvedic interventions for primary dysmenorrhea.

.**Apana Vayu Vaigunya** (functional imbalance), leading to improper expulsion and pain. Disturbances in Apana Vayu (Vaigunya) disrupt the normal flow of menstrual blood, causing pain and discomfort.

It affects a significant percentage of menstruating individuals, leading to reduced quality of life, absenteeism, and mental stress

Primary dysmenorrhea, characterized by painful menstruation without any underlying pelvic pathology, is a common gynecological complaint among women of reproductive age. It typically begins within a few years of menarche and is associated with ovulatory cycles. The pain, often crampy in nature, is primarily localized to the lower abdomen but may radiate to the back and thighs. Symptoms are most intense during the initial days of menstruation and can significantly impair quality of life, affecting daily activities, school attendance, and work productivity.

The pathophysiology of primary dysmenorrhea involves the excessive production of prostaglandins (mainly prostaglandin F2α) by the endometrium, leading to heightened uterine contractions, ischemia, and pain. Elevated prostaglandin levels during menstruation correlate with the severity of symptoms, underscoring the

role of inflammatory mediators in its development. Additionally, hormonal fluctuations, particularly estrogen and progesterone, influence the production of these mediators, thereby contributing to the cyclical nature of the condition.

In Ayurveda, primary dysmenorrhea is often correlated with **Kashtartava**, which is attributed to the vitiation of Vata, primarily **Apana Vayu**, responsible for the downward movement and expulsion of menstrual blood. The imbalance of Apana Vayu leads to improper regulation of menstruation, causing pain and associated symptoms like bloating, fatigue, and irritability. Understanding the role of Apana Vayu in primary dysmenorrhea provides insights into its holistic management through Ayurvedic principleS

Aims and objectives

Primary Aim: To assess the Apana Vayu Vaigunya in subjects with primary dysmenorrhoea.

Objectives

The apana vayu vaigunya is assessed before or during menstruation and after cessation of menstruation

To assess the apana vaigunya through self assessed questionnaires

To identify the specific signs and symptoms indicative of **Apana Vayu Vaigunya** in Kashtartava. To correlate the findings with Ayurvedic texts describing Apana Vayu's functions and dysfunctions

- Willingness to paricipate
- Aged-18-30 years
- Regular menstrual cycle **primary dysmenorrhea (**having pain abdomen discomfort during menstruation etc
- Presence of significant pain during menstruation without any underlying pelvic pathology

INCLUSION CRITERIA

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MATERIALS AND METHODS

STUDY-Study design observational

Sample size-50

Assesement-Assessed through SPSS

Data-Collection –Before 2 days or during Menstruation

And once again one day of cessation of menstral cycle

Study Design: Observational longitudinal study.

Study Setting: Conducted at SJGAMC koppal, India.

Duration: 3 months (January 2025 – June 2025).

Sample Size: 50 participants.

- EXCLUSION CRITERIA
- Females with secondary dysmenorrhoea
- Systemic Illness
- Hormonal therapy-and contraceptive usage
- Pregnant and lactating and irregular menstrual cycle

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
duringmensesscore	20	10.20	5.818	1.301
aftermenses	20	4.55	2.012	.450

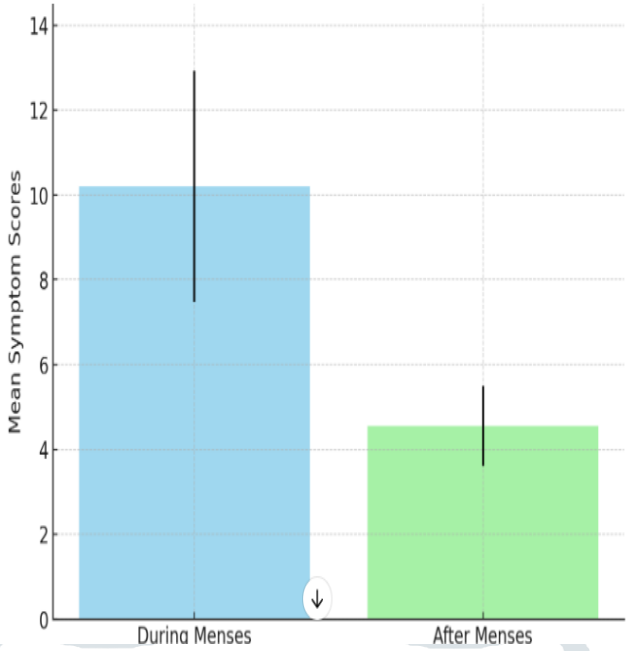
One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
duringmensesscore	7.840	19	.000	10.200	7.48	12.92
aftermenses	10.111	19	.000	4.550	3.61	5.49

Double-click to activate

By applying Statistical test paired T test we got the result as it is significant and apana vayu vaigunya is more pronounced during mensruation and than post menstruation in primary dysmenorrhea subjects.

The mean score value of 10.200 is more higher in before or during menstruation than the cessation of menstruation



By observing the graph,Apana vayu Vaigunyata is more pronounced during Menses and its vaigunyata has been decreased after cessation of menstrual cycle

Discussion

- The study highlights that **Apana Vayu Vaigunya symptoms** are significantly present in individuals with **Kashtartava (primary dysmenorrhoea)**, both during and after menstruation.
- The mean score during menstruation (10.20) is significantly higher than the mean score after menstruation (4.55), indicating that symptoms are more severe during menstruation.
- The persistence of symptoms even after menses suggests a need to address residual effects of Apana Vayu imbalance.
- The chala guna of vata is characterized by rapid movement and the ability to infuence other substances such as doshas, dhatus, and malas. Vata's gathi (movement) is anuloma directonal, Nidana like disruptng urges(vegadharana) and impaired digestion (agni vaigunya),ati ruksha sevana ,guru ahara sevana leads to apana vayu imbalance.

Imbalance can manifest the disease

This study confirms that *Apana Vayu Vaigunya* is more pronounced during menstruation among subjects with *Kashtartava* (primary dysmenorrhea). Even after cessation of menstruation, symptoms, although reduced, persist to some extent, highlighting the need for comprehensive management.

Ayurvedically, the *Chala Guna* of *Vata* promotes rapid movement and, when disturbed by factors like irregular diet (*Viruddha Ahara*), lifestyle imbalances (*Vega Dharana*), impaired digestion (*Agni Vaigunya*), and stress, leads to *Apana Vayu Dushti*. This disturbance in downward movement results in painful menstruation.

Early assessment based on *Nidana Panchaka* and implementation of Ayurvedic preventive strategies such as:

- Dietary modifications (*Pathya-Apathya*).
- Following *Dinacharya* and *Ritucharya*.
- Yoga and regulated physical activities.

- Herbal interventions like *Dashamoola*, *Ashoka*, and *Shatavari* can significantly improve outcomes.

The findings reinforce the clinical and physiological understanding that balancing *Apana Vayu* can relieve dysmenorrhea and enhance women's reproductive health.

Strengths and Limitations

Strengths:

- Application of classical Ayurveda in a modern clinical context.
- Use of validated questionnaire and statistical analysis.

Limitations:

- Limited sample size.
- Subjective nature of self-reported symptoms.
- Single-center study; larger multicenter studies needed.

Ayurvedic Understanding of Apana Vayu Vaigunya in Kashtartava

- **Apana Vayu**, one of the five subtypes of Vata, governs the downward movement of bodily substances, particularly in the processes of menstruation, defecation, urination, and childbirth.
- **Vaigunya (dysfunction)** of Apana Vayu disrupts the normal flow of menstruation, leading to conditions like Kashtartava (primary dysmenorrhea).
- Factors such as improper diet (Viruddha Ahara), lifestyle imbalances (Vega Dharana, irregular sleep patterns), and mental stress can contribute to Apana Vayu Dushti, resulting in painful menstruation

. Early Assessment and Intervention for Better Outcomes

- Ayurvedic diagnostics emphasize **Nidana Panchaka** (causative factors) and **Lakshanas** (symptoms) for early detection.
- Questionnaires assessing **Apana Vayu Guna**, **Agni**, and **Vata Prakopa** can be developed for systematic evaluation.
- **Preventive strategies**:
    - **Dietary Modifications (Pathya-Apathya)**: Regular intake of Ushna, Snigdha, and Laghu Ahara to pacify Vata.
    - **Lifestyle Adjustments**: Dinacharya and Ritucharya adherence, Yoga, and regulated exercise to maintain Vata balance.
    - **Herbal Interventions**: Use of Dashamoola, Ashoka, and Shatavari to strengthen reproductive health.

Scientific Evidence for Apana Vayu as a Key Factor in Menstruation

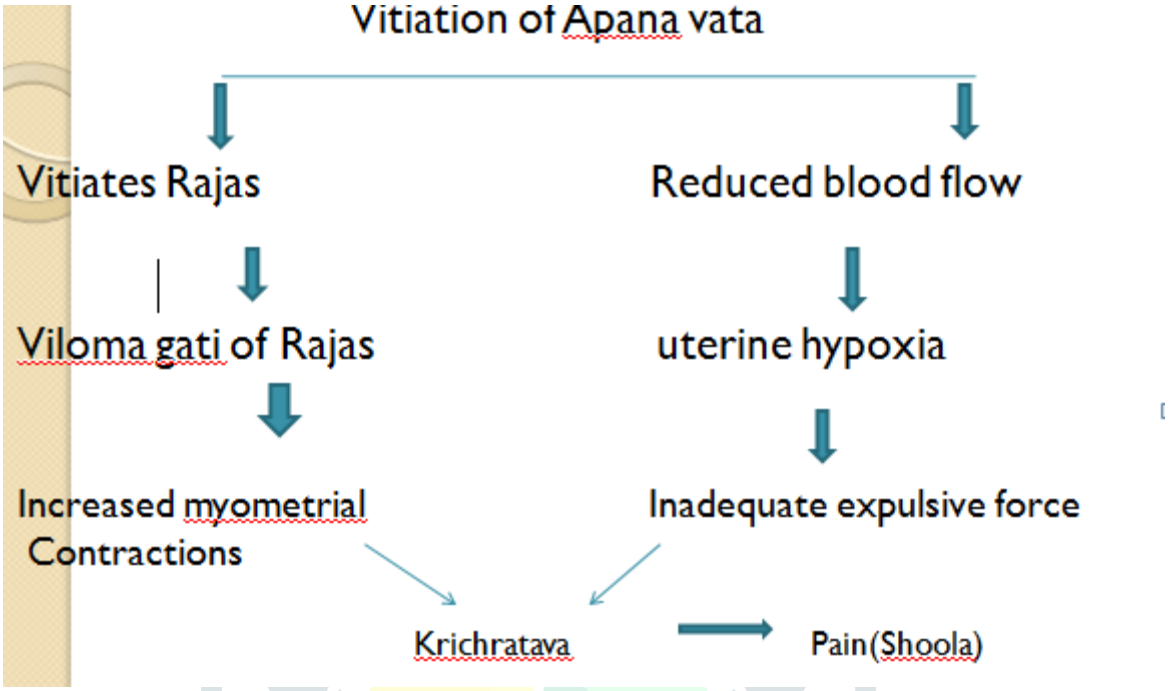
- Clinical findings from the observational study confirm that Apana Vayu Vaigunya leads to menstrual irregularities.
- The study supports the concept that normalizing Apana Vayu can **reduce dysmenorrhea and improve overall reproductive health**.

Revalidation of Ayurvedic Principles through Research

- This study provides **scientific validation** of Ayurvedic concepts, reinforcing the classical texts' description of Apana Vayu's role in menstruation.
- **Statistical analysis** strengthens the credibility of Ayurveda in modern scientific discourse, paving the way for integrative medicine approaches.

Excess prostaglandins → increased uterine contractions → pain (modern).

Vata Chala Guna and Apana Vayu imbalance → improper expulsion → pain (Ayurv



Conclusion

- The study reinforces the Ayurvedic understanding of **Apana Vayu Vaigunya** as a critical factor in Kashtartava.
- Early assessment and intervention targeting Apana Vayu balance can significantly improve the quality of life for patients with primary dysmenorrhoea.
- Fundamental principles of Ayurveda are revalidated through this study
- Through research study it is scientifically proved that apana vayu is main key role factor in menstruation
- This study reinforces the importance of integrating Ayurvedic diagnostics and management strategies in addressing menstrual health disorders like Kashtartava.
- The present study reinforces that *Apana Vayu Vaigunya* plays a central role in the pathophysiology of *Kashtartava* (primary dysmenorrhea). Early identification and Ayurvedic management strategies focusing on *Apana Vayu* can significantly improve the quality of life for affected women. This study also contributes to the scientific validation of classical Ayurvedic principles, encouraging integrative approaches in women's health.

References

1. Dawood MY. Primary dysmenorrhea: Advances in pathogenesis and management. *Obstet Gynecol*. 2006;108(2):428-441.
2. Burnett M, Lemyre M. Primary dysmenorrhea: Assessment and management. *CMAJ*. 2017;189(28):E1429-36.
3. Chaitanya KN, Babu PP. Primary dysmenorrhea and Ayurveda: A holistic approach. *Ayu*. 2012;33(3):402-406.
4. Proctor M, Farquhar C. Diagnosis and management of dysmenorrhea. *BMJ*. 2006;332(7550):1134-1138.
5. Tewari PV. Ayurvediya Prasuti Tantra Evam Stri Roga. 2nd ed. Varanasi: Chaukhambha Orientalia; 2016. p. 310-315