"MANAGEMENT OF PRIMARY DYSMENORRHEA USING YAVAGRAJ OIL NASYA: A CASE STUDY"

1Dr.Gargi Gulab Patil; 2Dr. Tinku-Ganesh Prabhu Khalache
1PG Scholar; 2Professor
Department of *Prasuti Tantra and Stree Roga*
Hon. Shree Annasaheb Dange Ayurveda Medical College, Post Graduation and Research Center, Ashta, Tal. Walwa, Dist. Sangli, Maharashtra, India

Abstract

Primary dysmenorrhea, correlated with *Kashtartava* in *Ayurveda*, is a common gynecological disorder affecting adolescent girls and women, characterized by painful menstruation, suprapubic cramps, low backache, and radiating thigh pain. According to Ayurveda, normal menstruation should occur without pain, and painful menstruation is mainly associated with vitiation of *Apana Vayu* and *Vyana Vayu*. *Yavagraj (Yavani)*, described as *Shoolaghna* in *Dhanwantari Nighantu*, possesses antispasmodic and anti-inflammatory properties due to the presence of thymol. As hormonal imbalance involving the hypothalamic-pituitary axis plays an important role in dysmenorrhea, *Nasya Karma* is considered beneficial based on the principle *"Nasa hi Shiraso Dwaram."* Therefore, *Yavagraj Taila Nasya* was selected in the present study to evaluate its therapeutic efficacy in the management of Primary dysmenorrhea.

Methods: In this particular case study, a 21-year-old, unmarried female consulted the *Streeroga* OPD with complaints of menstrual pain and associated symptoms for the past 8 years. Her menstrual cycles were regular, and ultrasonography revealed normal findings. She had previously undergone various treatments from different medical pathies for the management of Primary dysmenorrhea but remained dissatisfied with the relief obtained. Seeking a better and more holistic approach, she visited our hospital for Ayurvedic management and underwent *Nasya karma* with Nasodyne Yavagraj Nasya. Clinical assessment was performed before treatment and during follow-up based on the intensity of menstrual pain and associated symptoms, with regular monitoring throughout the treatment period. **Result:** Within a span of three months, the Ayurvedic treatment resulted in significant relief from pain before and during menstruation, along with improvement in associated symptoms, leading to better menstrual comfort, improved daily activities, and enhanced quality of life without any adverse effects. **Discussion:** The present study highlights the significant role of Ayurveda in effectively managing Primary Dysmenorrhea by reducing menstrual pain and associated symptoms through a holistic approach, indicating that *Yavagraj Taila Nasya* may serve as a safe and effective therapeutic option in the management of *Kashtartava.* However, further clinical studies with larger sample sizes are recommended to validate these findings.

KEYWORDS: Primary dysmenorrhea, Menstrual pain, *Kashtartava*, *Yavagraj*, *Nasyakarma*, Ayurveda

INTRODUCTION:

The reproductive cycle of women includes menstruation which starts in adolescence and lasts up to menopause and is a natural and essential element. Menstruation is regulated by hormones and hormones are chemical messengers in women's body. Where "*Aartava*" is shed with pain is known as *"Kashtartava". Vyana Vata* has control over the muscles which bring about actions such as contraction, relaxation, extension, flexion etc. when deranged all its functions in the entire body gets affected. *Vyana* regulates blood circulation, vasomotor system. It exercises an influence by its nervous mechanism over sweat and other secretions and convey them to the respective destinations including endocrinal. *Apanavayu* has been a prime importance in

gynaecological disorders. Normal menstruation is the function of *apanvayu*, therefore painful menstruation is considered as *Apana Vatudushti*. According to Ayurvedic view, normal *arthava* or menstruation should not be associated with any sort of discomforts as pain, burning sensation etc. Hence painful menstruation is a variation from normality, which needs medical attention.[1] *Kashtartava* has been compared to primary dysmenorrhea based on symptoms. Dysmenorrhea also known as painful menstruation is a major issue that affects adolescent girls and women. Suprapubic cramps, lumbosacral backpain and pain radiating to thighs are the symptoms of dysmenorrhea, along with that vomiting and irritability to carryout daily routine is experienced in severe cases. Symptoms starts few hours before or just after onset of menstruation and may last upto 24-48hrs.In this study of menstrual problems among the female junior college students from rural area of Sangli district though pain during menstruation was the most common complaint, yet it was reported by 42.5% subjects.[2]

In Ayurveda, there are many drugs and formulations mentioned for *Aartav-vahastrotodushti*, *Yonishoola* and symptoms of *kashartava*. *Yavani* is one of them[3]. *Yavani* is also known as "*Yavagraj*"[3]. *Yavagraj* contains thymol (2-isopropyl-5-methylphenol) & studies have shown that it has anti-spasmodic effect [4] and anti-inflammatory properties [5]. *Yavagraj* is considered as "*Shoolaghna*" in *Dhanwantarinighantu.*[6]

"यवानीदीपकोदीप्योयवसाह्वोयवाग्रजः।
यवानिकोग्रगन्धाचदीपनीयाचदीपनी।।९७।।
यवानीकटुतिक्तोष्णावातश्लेष्मविषामयान्।
हन्तिगुल्मोदरंशूलंदीपयत्याशुचानलम्।।९८।।"

– धन्वन्तरिनिघण्टुशतपुष्पादिवर्ग ९७-९८

Dysmenorrhea is a result of hormonal imbalance initiating from Hypothalamic Pituitary department.

Ayurveda says,

"नासाहि शिरसो द्वारम।।"

– अ.हृदय.सू. २०/१[7]

So, *nasya* can be appropriate *shodhana* procedure [7] to deal with endocrine disorders where Hypothalamus is involved. Hence, *Yavagraj Nasya* is taken for present study.

CASE STUDY:

A 21-year-old female patient presented to the Gynaecology Outpatient Department (OPD) with complaints of premenstrual pain, dysmenorrhea and associated menstrual discomfort persisting for the past eight years. The patient reported regular menstrual cycles without any significant irregularities. Ultrasonography examination revealed no abnormal pelvic pathology, and all findings were within normal limits. Despite undergoing treatment at an allopathic healthcare facility, she experienced inadequate symptomatic relief and remained dissatisfied with the therapeutic outcome. Owing to the chronic nature of her symptoms and the limited benefit obtained from conventional management, the patient sought Ayurvedic consultation at our hospital for further evaluation and treatment. Considering the clinical presentation and the patient's preference for holistic management, an Ayurvedic treatment approach was planned to alleviate her menstrual complaints and improve her overall quality of life.

Marital status: Unmarried

Menstrual History: Duration of menstrual cycle was of 4 days with regular interval of 28-32 days.

Family History: No relevant family history

Past surgical history: There was not significant history.

Personal history: Her appetite, sleep, micturition, bowel habit was all normal.

Investigation:

USG Scan (Abdomen & Pelvis): No abnormal pelvic pathology, and all findings were within normal limits.

Clinical findings

General examinations

Built - Normal

Weight - 50kg

Height - 164cm

Pulse rate - 80/min

B.P. - 120 /80mm of hg

Respiration rate - 18/min

Temp. -97.6°F

Physical examination

Ashtavidha Pariksha.

Nadi	Sarpagati (Vata Pradhan)
Shabda	Samyak
Mala	Prakrit
Sparsh	Aanushna-sheeta
Mutra	Samyak Pravriti
Drika	Spashta
Jivha	Nirama
Aakriti	Madhyam

Table 1. Ashtavidha Parikshan of Patient

Dashvidha Pariksha.

Prakriti (nature)	Vatapittaj
Sara (Purest body tissue)	Madhyama (Medium)
Samhanana (Body compact)	Madhyama (Medium)
Pramana (Body proportion)	Madhyama (Medium)
Satmya (Homologation)	Madhyama (Medium)
Satva (Mental strength)	Madhyama (Medium)
Vaya (Age)	Yuvati
Vyayamshakti (To carry on physical activities)	Madhyama (least capability)
Abhyavaran Shakti	Madhyama (least capability)
Jarana shakti	Madhyama (least capability)

Table 2. Dashavidha Parikshan of Patient

Systemic Examination

CVS: Heart sounds (S1, S2): normal

CNS: conscious and oriented to time and place.

Respiratory system: normal bilateral air entry, no added sounds. No abnormality found on other system.

Per abdomen

Soft. Non tender and no organomegaly was detected.

Per-vaginal examination

Not performed

Per-speculum examination

Not performed

TREATMENT SCHEDULE

The treatment protocol consisted of administration of *Nasya* using 'Nasodyne Yavagraj Nasya' with a dosage of 2 drops twice daily [15], administered 15 minutes prior to morning and evening meals for three consecutive cycles. The therapy was given from the cessation of menstruation until onset of next menstruation.

RESULT

Within the brief time frame of just three months, the Ayurvedic therapeutic interventions she obtained complete pain relief from her complaints.

DISCUSSION

MODE OF ACTION OF *NASYA*

In the practice of *Nasya Karma*, the way drugs work can be understood as follows: The drug enters the vital '*Sringaataka Marma'* (a critical point) and from there, they disperse into various channels known as '*Srotasas.*' It's noteworthy that *Vriddha Vagbhata* was the pioneer in explaining how *Nasya Karma* functions.

The action of *Nasya Karma* can be described in the following ways [8]:

▪ Absorption into General Blood Circulation: The drugs are absorbed and enter the blood stream, distributing throughout the body.
▪ Direct Infiltration into Brain's Venous Sinuses: Some drugs directly pool into the venous sinuses of the brain through the inferior ophthalmic vein.
▪ Direct Absorption into Cerebrospinal Fluid: In certain cases, drugs are absorbed directly into the cerebrospinal fluid, which surrounds the brain and spinal cord.

The peripheral olfactory nerves are connected to the limbic system, including the hypothalamus, which plays a vital role in regulating human behavior and hormone secretion. Stimulating these olfactory nerves can activate specific cells in the hypothalamus and amygdala. During *Nasya Karma*, it is beneficial to position the head lower and retain the medicine in the nasopharynx to allow for optimal drug absorption. This position provides sufficient time for the drug to be absorbed locally. Substances that are soluble in liquids are more likely to passively absorb through the cell lining membranes. Additionally, applying massage or local heat (fomentation) can further enhance drug absorption.

This entire process is believed to stimulate the Hypothalamus-Pituitary-Ovarian (H-PO) axis, which activates the hypothalamus and triggers the release of GnRH neurons. This can help regulate the pulsatile secretion of GnRH, leading to proper gonadotropin secretion. When the HPO axis is dysfunctional, it can lead to hormonal imbalance which eventually leads to dysmenorrheal.

YAVAGRAJ

Yavagraj have *katu, tikshna, ushna gunas* hence it acts as a pacifier of *vata & kapha*, reduces swellings, relieves pain, increases metabolic fire. *Yavagraj* is considered as "*Shoolaghna"* in *Dhanwantari Nighantu*,[6] And it is one of the contents in *Shoolaprashaman Mahakashay* mentioned by *Aacharya Charaka* [9].

Yavagraj contains thymol (2-isopropyl-5-methylphenol) & studies have shown that it has anti-spasmodic effect [10] and anti-inflammatory properties.[5]

Introduction of *Yavagraj*[11] [12] :

English Name	Bishop's weed
Latin Name	Tachyspermum Ammi (Linn.) Sprague
Family	Apiaceae
Prayojyanga	Fruit, *Beeja*
Guna	*Ruksha, Laghu, Tikshna*
Rasa	*Katu, Tikta*
Vipak	*Katu*
Virya	*Ushna*
Paryay	*Yavani, Ajmodika, Dipyaka, Shoolahantri, Ugragandha ,Bhutik.*
Karma	*Kaphavatshamak, shulaghna, udarroghara.*
Chemical Composition	Essential oil, with thymol as the major constituent along with p-cymene, γterpinene, α-pinene, β-pinene and α-terpinene.[13]

In the view of modern, The main bioactive constituents are thymol (2-isopropyl-5-methylphenol)(46.2-67.5%). Numerous studies have shown that thyme and its derivatives have anthelmintic, antimicrobial, antitussive, expectorant, antispasmodic, carminative and diuretic effects when employed in traditional and therapeutic uses.[10] Carom seeds are incredibly nutritious, being rich in fiber, antioxidants and other vitamins and minerals.

NASODYNE *YAVGRAJ TAILA NASYA*[14]

- It is an oil based *nasya* and was prepared according to the reference of *Sharangdhara Samhitha (Madhyam Khanda Chapter 9)*
- Main ingredients: *Yavagraj*
- Base oil: *Tila taila*
- Mixture was heated on low flame till *Taila siddhi Lakshan* appears.
- *Taila* filled in a suitable container without any propellant.

CONCLUSION

The present case study demonstrates the potential effectiveness of Ayurvedic management in a patient with primary dysmenorrhoea who had experienced recurrent symptoms despite previous conventional treatment. The Ayurvedic treatment protocol, including *Nasya* therapy and other appropriate interventions, resulted in a notable reduction in menstrual pain and associated symptoms, thereby improving the patient's overall quality of life. The observed clinical improvement suggests that Ayurveda may contribute to the restoration of hormonal and neuroendocrine balance through its holistic approach to disease management. This case highlights the possible role of Ayurvedic therapies as a safe and beneficial treatment option for primary dysmenorrhoea.

SUMMARY

Ayurvedic management, including *Nasya* therapy, effectively reduced pain and associated symptoms in primary dysmenorrhoea, suggesting its potential as a safe and holistic treatment approach.

REFERENCES

1. Sukanya S.P. Clinical management of kashtartava (dysmenorrhea) by boladivati with dashamula katukyadi kashaya, 2009-10
2. Waghachavare VB, Chavan VM, Dhumale GB.. A study of Menstrual problems among the female junior college students from rural area of Sangli District. Natl J Community Med 2013; 4(2): 236-240.
3. Prof. Priya Vrat Sharma, Dhanwantari-Nighantuh, Varanasi: Chaukhambha Orientalia, 2016, Shatpushpadivarg 88, p. 89
4. Blanka Premrov Bajuk, Luka Prem, Tilen Vake, Neža Žnidaršič and Tomaž Snoj..The effect of thymol on acetylcholine-induced contractions of the rat ileum and uterus under ex vivo conditions, Ethnopharmacology, a section of the journal Frontiers in Pharmacology, 19 October 2022
5. Mohamed Fizur Nagoor Meeran, Hayate Javed, Hasan Al Taee, Sheikh Azimullah and Shreesh K. Ojha.. Pharmacological Properties and Molecular Mechanisms of Thymol: Prospects for Its Therapeutic Potential and Pharmaceutical Development, Published online 2017 Jun 26.
6. Prof. Priya Vrat Sharma, Dhanwantari-Nighantuh, Varanasi: Chaukhambha Orientalia, 2016, Shatpushpadivarg 88-89, p. 89
7. Tripathi, Dr Bramhanand. Ashtang Hridaya. Varanasi: Chaukhamba Publication, 2005. p. 244.
8. A ROLE OF NASYA IN THE MANAGEMENT OF ANOVULATORY CYCLES, Dr Shrutika Surlake, Dr. Vishnu BaWane. WJCMPR. ISSN: 2582-0222.
9. Agnivesha, Charak Samhita, [ed.] Vaidya JadavjiTrikamji Acharya, Varanasi : Chaukhamba Orientalia, 2009, Sutrasthana, Shadvirechanshatashritiya Adhyaya 4/17(45), p. 34
10. Blanka Premrov Bajuk, Luka Prem, Tilen Vake, Neža Žnidaršič and Tomaž Snoj..The effect of thymol on acetylcholine-induced contractions of the rat ileum and uterus under ex vivo conditions, Ethnopharmacology, a section of the journal Frontiers in Pharmacology, 19 October 2022
11. Prof. D. Shanth Kumar Lucas, Dravyaguna-Vijana, Varanasi: Chaukhamba Visvabharati, 2012, p. 211-214, vol.2
12. Prof. P.V.Sharma, Dravyaguna-Vijnana, Chaukhambha Bharati Academy, Varanasi, 2019, Deepanadi Varga (shoolaprashaman) 203, p. 494-496
13. KK Chahal, K Dhaiwal, A Kumar, D Kataria and N Singla..Chemical composition of Trachyspermum ammi L. and its biological properties: A review, Journal of Pharmacognosy and Phytochemistry 2017; 6(3): 131-140
14. Tripathi, Dr Bramhnand. Sharangdharacharya virachit Sharangdhara samhita. Varanasi : Chaukhamba Surbharati Prakashana, Madhyam Khanda, Ghrutataila kalpana adyaya, 2019; 9/1: 144.
15. Tripathi, Dr Bramhnand. Sharangdhar acharya virachit Sharangdhara Samhita., Varanasi : Chaukhamba Surbharati Prakashana, 2019. uttarkhand, Nasya vidhiadyaya 8/37 p. 248.