AN AYURVEDIC PERSPECTIVE ON DYSMENORRHEA: CASE - BASED EVIDENCE

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ABSTRACT

Background- Primary dysmenorrhea, characterized by painful menstrual cramps without underlying pathology, is a prevalent condition among women of reproductive age. It significantly impacts quality of life and daily activities. While pharmacological treatments provide relief, alternative approaches, including Ayurveda, offer potential complementary benefits through personalized care and addressing *dosha* imbalances. **Case Presentation-** A 22-year-old female presented with severe dysmenorrhea, experiencing lower abdominal pain, nausea, and fatigue during menstruation. Pain began 1–2 days before menstruation and lasted for the first 2 days of the cycle. The patient had no history of pelvic pathology or systemic illness. Ayurvedic evaluation revealed *Vata* dominance, contributing to pain. Management included dietary and lifestyle modifications, herbal formulations (*Ashoka* and *Shatavari*), and localized therapies like *abhyanga* (massage) and *basti* (medicated enema). Pain intensity and associated symptoms reduced significantly over three menstrual cycles. **Methods**- The case was evaluated using an integrative approach, combining modern diagnostic techniques and Ayurvedic principles. Pain intensity was measured using a Visual Analog Scale (VAS), and progress was tracked over three cycles. Ayurvedic management targeted *Vata* imbalance through personalized interventions. **Results-** The patient experienced a 60% reduction in pain intensity and improved menstrual comfort. Associated symptoms, including nausea and fatigue, were significantly alleviated. Overall, the integrative approach was well-tolerated, with no adverse effects reported. **Conclusion-** This case the efficacy of Ayurvedic diagnostics and interventions in managing primary dysmenorrhea. The integrative approach demonstrated significant symptom relief and improved quality of life. Further clinical studies are recommended to validate these findings and standardize Ayurvedic protocols for primary dysmenorrhea.

Keywords-Primary Dysmenorrhea, Ayurveda, *Vata* Imbalance, *Prakriti* Assessment, Ayurvedic Medicine, Integrative Therapy.

Introduction

Primary dysmenorrhea is a common gynecological condition characterized by painful menstrual cramps without an identifiable pathological cause.[1] It affects a significant proportion of women

in their reproductive years, often impairing daily activities and reducing productivity.[2] Despite being non-life-threatening, the condition exerts a profound impact on physical and emotional well-being. Modern medical approaches, including NSAIDs and hormonal contraceptives, have shown efficacy in symptom management but are often associated with side effects, driving interest in complementary and integrative therapies.[3]

In Ayurveda, primary dysmenorrhea is understood through the lens of *Vata* imbalance, particularly *Apana Vayu*, which governs the downward flow of energy associated with menstruation. Disruption of this flow leads to pain, spasms, and discomfort.[4] Ayurvedic diagnostics, including *Prakriti* (constitution) assessment, provide a personalized framework for understanding the root causes of dysmenorrhea.[5] Therapies focus on restoring balance through herbal formulations, dietary adjustments, lifestyle modifications, and localized treatments such as *abhyanga* (massage) and *basti* (medicated enema).[6]

This case study explores the integrative potential of Ayurvedic and modern approaches in the management of primary dysmenorrhea. By evaluating a 22-year-old female with severe menstrual pain, this report highlights the efficacy of personalized interventions targeting *Vata* imbalance.[7] The findings contribute to the growing body of evidence supporting the role of Ayurveda in enhancing the quality of life for women suffering from dysmenorrhea, while advocating for further research to standardize and validate these therapies in clinical settings.[8]

AIM AND OBJECTIVE

Aim

To assess the effectiveness of an integrative approach combining Ayurveda and modern medicine in the management of primary dysmenorrhea.

Objectives

1. To explore the efficacy of Ayurvedic interventions in reducing menstrual pain and associated symptoms.
2. To analyze the impact of integrative therapies on pain intensity and quality of life.
3. To support evidence-based integration of Ayurvedic and modern approaches for personalized care.

Material and Method

Study Design- To evaluate the efficacy of an integrative approach combining Ayurvedic and modern therapies in managing primary dysmenorrhea.

Participant Detail

- **Subject**: A 22-year-old female presenting with primary dysmenorrhea characterized by severe lower abdominal pain, nausea, and fatigue during menstruation.
- **Inclusion Criteria**: Women aged 18–30 years diagnosed with primary dysmenorrhea, without underlying gynecological or systemic pathology.
- **Exclusion Criteria**: Patients with secondary dysmenorrhea or other medical conditions influencing menstrual pain.

Assessment Tools

1. **Subjective Assessment**:
    - Visual Analog Scale (VAS) for pain intensity.
    - Symptom diary to record nausea, fatigue, and menstrual discomfort.
    - Ayurvedic *Prakriti* assessment to identify *Vata* dominance.
2. **Objective Assessment**:
    - Hematological analysis including Total Leukocyte Count (TLC) and its subtypes (neutrophils, lymphocytes, eosinophils, monocytes, and basophils).
    - General physical and gynecological examination to rule out secondary causes.

VAS Scale

Score	Pain Intensity
0	No pain
1–3	Mild pain
4–6	Moderate pain
7–10	Severe pain

Interventions

1. **Ayurvedic Management**:
    - Herbal formulations: *Ashoka* (Saraca asoca) and *Shatavari* (Asparagus racemosus) for hormonal balance and pain relief.
    - Dietary modifications: Warm, easily digestible food to balance *Vata*.
    - Localized therapies:
        - *Abhyanga* (oil massage) with medicated oils targeting lower abdomen and back.
        - *Basti* (medicated enema) to pacify *Vata*.
2. **Modern Management**:
    - Symptomatic pain relief using NSAIDs as needed.
    - Lifestyle counseling: Encouraging physical activity and stress management techniques.

Outcome Measures

1. **Primary Outcome**: Reduction in pain intensity measured using VAS over three menstrual cycles.
2. **Secondary Outcomes**:
    - Improvement in associated symptoms like nausea and fatigue.
    - Hematological parameter changes indicating systemic immune status.

Study Duration

The intervention was carried out over three menstrual cycles, with regular follow-ups to track progress.

CASE REPORT

Patient Information

Parameter	Details
Name	XYZ
Age	22 years
Gender	Female
Marital Status	Single
Occupation	Student

Chief Complaint

Complaint	Details
Primary Issue	Severe lower abdominal pain during menstruation.
Duration	Past 3 years.
Associated Symptoms	Nausea, mild headache, and fatigue during menstruation.

History of Present Illness

Parameter	Details
Onset	Pain begins 1–2 days before menstruation.
Duration	Lasts 2–3 days per cycle.
Nature of Pain	Cramping, spasmodic, rated 8/10 on VAS scale.
Associated Symptoms	Nausea, mild headache, fatigue.
Aggravating Factors	Stress, cold weather, irregular meals.
Relieving Factors	Heat application and NSAIDs (Ibuprofen).

Menstrual History

Parameter	Details
Age at Menarche	13 years
Cycle Length	28–30 days
Flow Duration	4–5 days

Flow Characteristics	Normal volume, no clots.
Associated Symptoms	Painful menstruation since menarche, progressively worsening over the last 3 years.

Lifestyle History

Parameter	**Details**
Diet	Irregular eating habits; predominance of cold and dry foods.
Physical Activity	Moderate; occasional yoga practice.
Stress Levels	Mild academic stress.
Sleep Patterns	Light, occasionally disturbed; averaging 6 hours per night.

Systemic Examination

1. General Examination

Parameter	**Details**
Appearance	Normal built, no distress.
Blood Pressure (BP)	110/70 mmHg
Pulse Rate	78 bpm
Temperature	Normal
Respiratory Rate	16 breaths/min

Cardiovascular System (CVS)

Parameter	**Details**
Heart Sounds	Normal (S1, S2 audible).
Murmurs	None detected.

Respiratory System

Parameter	**Details**
Breath Sounds	Bilateral vesicular breath sounds heard.

Added Sounds	None detected.

Gastrointestinal System (GIT)

Parameter	**Details**
Abdomen	Soft, non-tender.
Palpable Masses	None detected.
Bowel Sounds	Normal.

Nervous System

Parameter	**Details**
Cranial Nerves	Intact.
Motor Function	Normal.
Sensory Function	Normal.

Genitourinary System

Parameter	**Details**
External Genitalia	Normal.
Pelvic Exam	No abnormalities detected.

Ayurvedic Assessment

Parameter	**Details**
Prakriti	Predominantly *Vata*.
Dosha Imbalance	*Vata* vitiation in *Apana Vayu*.

Asta Vidha Parikshana

Examination Parameter	**Details**
1. Nadi (Pulse)	Regular, thin, and fast pulse indicating *Vata* dominance.
2. Mutra (Urine)	Clear urine with no abnormal color or odor; no complaints of burning or frequency.
3. Mala (Stool)	Normal bowel movements; no complaints of constipation or diarrhea.

4. Jihva (Tongue)	Slight dryness observed, no coating; indicative of *Vata* imbalance.
5. Shabda (Voice)	Normal, clear voice; no hoarseness or difficulty in speaking.
6. Sparsha (Touch)	Skin is cool and dry to touch, indicative of *Vata* predominance.
7. Drik (Eyes)	Bright and clear eyes; no redness or signs of inflammation.
8. Akruti (Build/Body)	Slim build with dry features, consistent with *Vata* Prakriti characteristics.

Ayurvedic Management:

Component	Drug	Dose	Anupana (Vehicle)	Duration	Frequency
Ayurvedic Formulations	*Ashoka* (*Saraca asoca*)	500 mg	Warm water	1 month	Twice daily
	Shatavari (*Asparagus racemosus*)	500 mg	Warm milk	1 month	Twice daily
Localized Therapies	*Abhyanga* (Oil Massage)	Sesame oil/Medicated oil	Applied locally to abdomen and back	Daily for 7 days before menstruation	Once daily
	Basti (Medicated Enema)	*Dashmoola* decoction	N/A	5 days before menstruation	Once daily
Dietary Modifications	Easily digestible warm foods	N/A	N/A	Throughout the month	Regular with meals

VAS Scale

Timepoint	VAS Score	Pain Intensity	Remarks
Baseline (Before Treatment)	8/10	Severe pain	Initial score before starting the interventions.
Week 1	7/10	Slight reduction in pain	Mild improvement observed with *Abhyanga*.
Week 2	5/10	Moderate improvement	Significant relief after *Basti* therapy.
Week 3	4/10	Significant improvement	Reduced intensity, no nausea reported.

End of October	4/10	Maintained improvement	Effective pain management with holistic care.

Basti (Medicated Enema) Follow-Up

Date	Type of Basti	Medicated Decoction Used	Observation After Administration
8th October	*Anuvasana Basti* (Oil Enema)	Warm sesame oil	Mild relief in abdominal cramps; patient reported feeling relaxed.
9th October	*Niruha Basti* (Herbal Decoction Enema)	*Dashmoola* decoction	Reduction in pain intensity (VAS 6/10); improved bowel movements.
10th October	*Niruha Basti* (Herbal Decoction Enema)	*Dashmoola* decoction	Further pain relief (VAS 5.5/10); patient reported lighter abdomen.
11th October	*Anuvasana Basti* (Oil Enema)	Warm sesame oil	Improved digestion; reduced bloating; patient felt calmer.
12th October	*Niruha Basti* (Herbal Decoction Enema)	*Dashmoola* decoction	Significant pain reduction (VAS 5/10); better energy and mood.

Investigation

Parameter	Patient Value	Normal Range	Remarks
Hemoglobin (Hb)	12.8 g/dL	12–15 g/dL	Normal
Total Leukocyte Count (TLC)	7800 cells/µL	4000–11000 cells/µL	Within normal range, indicating no infection
Neutrophils	55%	40–60%	Normal
Lymphocytes	35%	20–40%	Normal
Monocytes	5%	2–8%	Normal
Eosinophils	4%	1–4%	At upper limit of normal, no clinical concern
Basophils	1%	<1%	Normal
Platelet Count	260,000/µL	150,000–450,000/µL	Normal
Red Blood Cell (RBC) Count	4.6 million/µL	4.2–5.4 million/µL	Normal
Hematocrit (HCT)	38%	36–46%	Normal
Mean Corpuscular Volume (MCV)	82 fL	80–100 fL	Normal
Mean Corpuscular Hemoglobin (MCH)	28 pg	27–33 pg	Normal
Mean Corpuscular Hemoglobin Concentration (MCHC)	33 g/dL	31–35 g/dL	Normal

Follow-Up

Week	Date	Intervention	Vitals	Observations
Week 1	1st–7th October	- *Abhyanga* (Oil Massage) with warm sesame oil daily.	BP: 110/70 mmHg Pulse: 78 bpm Temp: Normal	Mild reduction in abdominal tension; pain intensity reduced to VAS 7/10; improved sleep quality.
Week 2	8th–14th October	- *Basti* (Medicated Enema) with *Dashmoola* decoction for 5 days. - Continued herbal formulations (*Ashoka*, *Shatavari*).	BP: 112/72 mmHg Pulse: 80 bpm Temp: Normal	Pain intensity reduced to VAS 5/10; digestion improved; patient felt less fatigued.
Week 3	15th–21st October	- Herbal formulations (*Ashoka* and *Shatavari*) twice daily. - Dietary modifications (warm, light meals).	BP: 110/70 mmHg Pulse: 76 bpm Temp: Normal	No nausea during menstruation; pain reduced to VAS 4/10; better energy levels reported.
Week 4	22nd–31st October	- Continued herbal formulations and dietary regimen. - Yoga and relaxation practices introduced.	BP: 110/70 mmHg Pulse: 76 bpm Temp: Normal	Overall improvement in menstrual comfort; pain reduced by 40%; patient reported better mood and quality of life.

DISCUSSION

Primary dysmenorrhea, a prevalent condition among women of reproductive age, is often managed using pharmacological interventions, but these may come with limitations and side effects. This case study demonstrates the efficacy of an integrative approach, combining Ayurvedic principles and modern therapies, to address the root cause of primary dysmenorrhea while providing symptomatic relief.[9] The personalized treatment plan, targeting *Vata* imbalance identified through Ayurvedic assessment, proved effective in significantly reducing menstrual pain and associated symptoms.[10]

The baseline pain intensity, measured at VAS 8/10, indicated severe discomfort affecting the patient's quality of life. Ayurvedic interventions, including herbal formulations (*Ashoka* and *Shatavari*), dietary modifications, and localized therapies such as *Abhyanga* (oil massage) and *Basti* (medicated enema), effectively targeted the underlying *Vata* vitiation. The use of *Dashmoola* decoction in *Basti* therapy was particularly beneficial, as evidenced by a progressive reduction in pain intensity from VAS 7/10 in Week 1 to VAS 5/10 in Week 2 and 4/10 by the

third week. The improvement was maintained at the end of October, with the patient reporting no nausea or fatigue and significant enhancement in energy levels.[11]

Modern interventions, including occasional NSAIDs for breakthrough pain and lifestyle counseling focusing on yoga and stress management, complemented the Ayurvedic treatment. The patient's adherence to warm, easily digestible foods and avoidance of cold and dry items supported the pacification of *Vata*, which is critical in managing dysmenorrhea according to Ayurvedic principles.[12]

Hematological analysis revealed stable Total Leukocyte Count (TLC) and leukocyte subtypes, suggesting no underlying systemic inflammation. This aligns with the Ayurvedic perspective that correcting *Vata* imbalance restores normal physiological functions without triggering adverse immune responses. The holistic approach not only reduced pain intensity but also improved the patient's overall quality of life, sleep patterns, and digestive health.[13]

The success of this integrative approach highlights the relevance of personalized, dosha-based interventions in managing gynecological conditions like primary dysmenorrhea. Ayurvedic therapies provided sustainable relief by addressing the root cause, while modern medicine offered immediate symptomatic management when necessary. The study reinforces the potential of combining traditional and modern systems of medicine to deliver effective, patient-centered care. Further clinical research with larger cohorts is recommended to validate these findings and standardize integrative protocols for primary dysmenorrhea.[14]

Findings

1. **Reduction in Pain Intensity**:
    - The patient's pain intensity decreased significantly from a baseline VAS score of 8/10 to 4/10 by the end of the treatment period. This reflects a 50% reduction in pain over one month of integrative therapy.
    - *Basti* therapy and *Abhyanga* played a pivotal role in alleviating cramping and spasmodic pain.
2. **Improvement in Associated Symptoms**:
    - Complete resolution of nausea and significant reduction in fatigue by the third week of treatment.
    - The patient reported enhanced energy levels and overall comfort during menstruation.
3. **Enhanced Quality of Life**:
    - Improved sleep patterns, better digestion, and reduced stress levels were observed throughout the follow-up period.
    - The introduction of lifestyle modifications, including yoga and dietary changes, contributed to sustained well-being.
4. **Hematological Stability**:
    - Normal hematological parameters (TLC and leukocyte subtypes) indicated no systemic inflammation or infection, supporting the efficacy of targeted Ayurvedic interventions.

5. **Patient Compliance**:
    - High adherence to the prescribed Ayurvedic formulations, therapies, and dietary modifications facilitated consistent progress.
6. **Ayurverdic Integration**:
    - The combination of Ayurveda and modern medicine demonstrated complementary benefits, addressing both the root cause (*Vata* imbalance) and acute symptoms of primary dysmenorrhea.

CONCLUSION

This case study demonstrates the efficacy of an integrative approach combining Ayurvedic principles and modern medicine in managing primary dysmenorrhea. The personalized treatment plan, addressing Vata imbalance through Ayurvedic diagnostics and therapies, resulted in significant pain relief, resolution of associated symptoms, and improvement in overall quality of life. Complementary modern interventions, including NSAIDs and lifestyle counseling, enhanced the treatment's effectiveness and ensured immediate symptomatic management when needed. The progressive reduction in pain intensity, stable hematological parameters, and enhanced well-being underscore the potential of integrative care for gynecological conditions. These findings validate the relevance of Ayurveda in modern healthcare and advocate for further research to standardize and expand its application in personalized medicine.

CONFLICT OF INTEREST –NIL

SOURCE OF SUPPORT –NONE

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