

**A COMPARATIVE CLINICAL EVALUATION OF PARIBHADRA (ERYTHRINA INDICA Lam.)PATRA & TWAK WITH SPECIAL REFERENCE TO KASHTARTAVA (PRIMARY DYSMENORRHOEA)**

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**ABSTRACT**

*Kashtartava* is a condition mentioned in various *Artavavyapats* and other diseases related to female reproductive system. On analysis, one can make out that, it is a result of *vatavruddhi*, *apanavata margavarodha*, *artava dushti* and *dhatu kshaya*. *Kashtartava* being painful menstruation is commonly compared with the concept of dysmenorrhoea in conventional science. The conventional science tries to find a cure for this through analgesics and hormonal therapy which often results in ill effects. Here comes the importance of herbal remedies of Ayurveda. A clinical study was conducted on 30 patients of *Kashtartava*, *vati* of *Paribhadra Patra* and *Twak* (*Erythrina indica* Lam.) were administered for a period of 12 days, starting from 5days prior to menstruation for 3 consecutive cycles. *Paribhadra* show a wide range of therapeutic usage. Because of its properties like *Katu-tikta rasa*, *ushna veerya*, *katu vipaka*, *vata-kaphahara*, *medohara*, *deepaka*, *pachaka* etc might help in *samprapti vighatana* of *Kashtartava*. Clinical study shows that, both *Patra* and *Twak* of *Paribhadra* are useful in treating Primary dysmenorrhoea. When statistical values are compared, effect of *Paribhadra Patra* was better than *Paribhadra Twak*. After assessing the results, it was observed that in Group A, 4 patients had good improvement, 9had moderate improvement and 2 had slight improvement. In Group B, 2 patients had good improvement, 10 had moderate improvement, 2 had slight improvement and 1 had no improvement. The present study shows significant result in *Kashtartava*.

**KEYWORDS:** *Kashtartava*, *Artavavyapat*, *Dysmenorrhoea*, *Paribhadra*, *Erythrina indica*

**INTRODUCTION**

Women's health is the primary factor to be considered for the well-being of family, society and nation. Any physical or mental disorder disturbs her educational, social, and economic life. Classics have described all the gynaecological problems under the umbrella of *Yonivyapats*. The disease *Kashtartava* is not described in classics as an individual disease entity. *Kashtartava* is mentioned as a symptom of *Udavarta*<sup>1,2,3,4,5,6,7</sup>, *Vatala*<sup>8</sup>,

*Paripluta*<sup>9,10</sup>, *Mahayoni*<sup>11</sup>, *Sannipatika Yoni vyapat*<sup>12</sup> and *Vataja Artava dushti*<sup>13,14</sup>. It is a *Tridoshaja Vyadhi* with *Vata* predominance. On analysis, one can make out that, it is a result of *Vata Vruddhi*, *Apana Vata Margavarodha*, *Arthava dushti* and *Dhathu kshaya* especially affecting *Rasa dhathu*. *Kashtartava* being painful menstruation is commonly compared with the concept of dysmenorrhoea<sup>15</sup> in conventional science.

Dysmenorrhoea is one of the most frequent among gynaecological complaints. Not less than 50% of adult female populations suffer from some discomfort in relation to menstruation. Majority of cases of dysmenorrhoea fall in to the group of primary dysmenorrhoea<sup>16</sup>. Today's stressful modern life style, food habits, and frequent interventions of female genital tract affect the uterine environment, which leads to higher incidence of dysmenorrhoea.

In this study, primary dysmenorrhoea is selected as it is most common and relevant to the era of changing life styles. *Vata* is main causative factor of all *Yonivyapats*, so it should be treated first. Then other associated doshas should be treated. In *Yonivyapats*, *Arthava* will be in *dushtavastha*, and *arthava shuddhi* should be attained by following *shodhana*. Later, *deepana-pachana*, *snehana*, *svedana*, five *Shodhana* measures should be used, after this *Uttarbasti* should be given repeatedly<sup>17,18</sup>.

*Paribhadra Patra* and *Twak* were selected as the trial drugs. *Paribhadra* (*Erythrina indica* Lam.) belonging to Fabaceae family, is having *katu-tikta rasa*, *ushna veerya*, *vata-kaphahara*, *medohara*, *deepaka*, *pachaka*, *shoolaghna*, *arthava shodhaka* etc properties<sup>19</sup>, which may help in *Samprapti Vighatana* of *Kashtartava*. The bark has got smooth muscle relaxant property on isolated rat uterus<sup>20</sup>. It is also mentioned that *Paribhadra* leaves and bark can be used to treat dysmenorrhoea<sup>21</sup>. So *Paribhadra* relieves pain and have special target effect on *garbhashaya* also. *Kashtartava* being pain originated from *garbhashaya*, this drug is thus inferred to be

useful in *Kashtartava*. Moreover that, there are many tribal claims about their usefulness in *Kashtartava*<sup>22</sup>.

The treatment modalities in modern system of medicine are analgesics, antispasmodics, prostaglandin synthetase inhibitors, combined oral contraceptives and surgery<sup>23</sup>. These medicines do not provide a long lasting solution and have serious adverse effects. Hence there is a need to find a safe and effective solution for dysmenorrhoea.

### OBJECTIVES

Comparative clinical evaluation of the *Paribhadra* (*Erythrina indica* Lam.) *Patra* and *Twak* on *Kashtartava* (Primary dysmenorrhoea).

### MATERIALS AND METHODS

#### Collection and Preparation of Drugs:

*Paribhadra Patra* and *Twak* were collected as per season after authentic botanical identification. ***Paribhadra Patra Vati*** - *Paribhadra* (*Erythrina indica* Lam.) leaves were collected, cleaned and micropulverised as per rules of GMP and fine powder was obtained. To increase the potency the *churna* is given *bhavana* with the *kashaya* of the same and rolled in to 500mg *Vati*.

***Paribhadra Twak Vati*** - The bark is collected, cleaned and micropulverised as per rules of GMP and fine powder was obtained. To increase the potency the *churna* is given *bhavana* with the *kashaya* of the same and rolled in to 500mg *Vati*.

#### Selection of the cases:

30 patients complaining of pain during menstruation attending to the OPD of K V G Ayurveda Medical College & Hospital, Sullia were taken into this study. They were divided into 2 groups using computer

generated list, Group A & B comprising of 15 patients each. Samples were selected as per the inclusion and exclusion criteria.

**Inclusion criteria:**

- Women between 15-25 years of age.
- Uncomplicated cases of primary dysmenorrhoea.
- Patient presenting signs and symptoms of dysmenorrhoea.

**Exclusion criteria:**

- Congenital anomalies leading to dysmenorrhoea.

- Patients having pelvic inflammatory diseases.
- Diseases which simulate dysmenorrhoea.
- Patients with chronic general illness.
- Patients below 15 years & above 25 years of age.
- Patients those who are married.

**Assessment criteria**

The patient's response was assessed on the basis of subjective parameters alone.

Pain was assessed using the following criteria-

**Table 1: I. Pain during menses**

Scoring	Pain during menses
0	Absent
1	Present, daily activity not affected, no analgesics required.
2	Present, daily activity affected, analgesics required.
3	Present, unable to carry out routine activities, not subsided by taking analgesics.

**Table 2: II. Associated complaints**

Nausea	Present/Absent
Vomiting	Present/Absent
Fatigue	Present/Absent
Fainting	Present/Absent
Diarrhoea	Present/Absent
Suprapubic tenderness	Present/Absent
Breast engorgement	Present/Absent

If present : 1  
Absent : 0

**Treatment plan:**

**Group A:** Paribhadra Patra vati-Oral-3gm/day, in two divided doses.

**Group B :** Paribhadra Twak vati -Oral -3gm/day, in two divided doses.

Vati was given morning and night prior to food along with sukhoshna jala for 12 days (starting from 5 days prior to the expected date of menstruation) for three consecutive cycles.

**Follow up:** For one successive menstrual cycle.

**PATHYA-APATHYA:**

**Pathya**

Ahara - Patients were advised to take Ushna and laghu ahara, Ushna jala pana

Vihara - Yogasana, Hot water bath,

**Apathya:**

Ahara - Atyamla, katu, lavana rasa sevana, Atyushna and sheetha ahara sevana.

Vihara - Cold water bath, exposure to cold weather or wind.

**RESULTS**

**Statistical analysis:**

The obtained data were analyzed statistically. The values were expressed as

Mean  $\pm$  SEM. The data were analyzed by paired 't' test and unpaired 't' test as required. The level of  $P < 0.05$  and  $P < 0.01$ ,  $P < 0.001$  was considered as statistically

significant and highly significant respectively. Level of significance was noted and interpreted accordingly.

**Table 3: Table showing the comparative results of Group-A and Group-B**

Characteristics	Group-A			Group-B		
	Mean score		'p' value	Mean score		'p' value
	BT	FU		BT	FU	
Pain during menstruation	2.27	1.25	<0.001	2.30	1.47	<0.001
Nausea	0.53	0.33	<0.05	0.60	0.40	>0.05
Vomiting	0.27	0.13	>0.05	0.47	0.33	>0.05
Fatigue	1.13	0.80	>0.05	0.73	0.53	>0.05
Fainting	0.33	0.20	>0.05	0.20	0.13	>0.05
Diarrhoea	0.20	0.13	>0.05	0.20	0.13	>0.05
Suprapubic tenderness	1.13	0.93	>0.05	0.80	0.67	>0.05
Breast engorgement	0.20	0.13	>0.05	0.20	0.13	>0.05

**Table 4: OVERALL RESULT OF THERAPY**

Class	Grading	No of patients	
		Group A	Group B
0	No improvement	0	01
0-25%	Little improvement	02	02
26%-50%	Moderate improvement	09	10
51%-75%	Good improvement	04	02
76-100%	Completely cured	0	0

## DISCUSSION

This study was aimed to assess the efficacy of *Paribhadra Patra* and *Twak vati* in the patients of *Kashtartava*. Out of 15 patients of Group A, 4 patients had good improvement, 9 had moderate improvement and 2 had slight improvement. Out of 15 patients of Group B, 2 patients had good improvement, 10 had moderate improvement, 2 had slight improvement and 1 had no improvement. There was significant improvement in nausea in group A and no significant improvement in vomiting, fatigue, fainting, diarrhoea, supra pubic tenderness and breast engorgement in both the groups.

*Kashtartava* is a *sadhyavyadhi*. In Ayurveda, *Vataprakopa* is the main

causative factor in *Kashtartava*. By the properties like *ushna veerya*, *anulomaka*, *deepaka*, *pachaka*, *shoolahara*, and *kaphavatahara* etc. it might help in the *samprapti vighatana*. The leaves and bark of *Paribhadra (Erythrina indica Lam.)* has got emmenagogue property. The bark has proved to be having smooth muscle relaxant property on isolated rat uterus<sup>24</sup>.

Action of a drug can be explained on the basis of *rasapanchaka*. *Rasa panchaka* reveals its action on *Tridosha* and *saptadhatu*. *Katu-tikta Rasa* is *amapachaka*, *kaphahara*. It does *Ama pachana* and thereby removes the *sanga* of *arthavavaha srothas*. *Laghu-Ruksha guna* is *kaphahara* and *amahara*. *Ushna veerya* does *agni deepana* and pacifies *Vata* and *Kapha*. *Katu*

*vipaka* does *ama pachana* and it does the *shamana* of the *nidan*s of *Kashtartava*. By these properties it removes block (*sanga*) of *arthavavaha srothas*. *Katu-tikta rasa* and *ushna veerya dravyas* are having *lekhana* and *srotoshodhana* properties, which help in the *samprapti vighatana*. By *vataghna* and *shulaghna* effect, it directly acts against pain in *Koshta*. The property of *Vatanulomana* corrects the path of *apana vata* and expels it out from *koshta*. This again helps in relieving *koshtagata vata*. In the patients who continued intake of *Paribhadra Patravati* for about 4 cycles, dysmenorrhoea was not found even after stopping it, for a long time.

*Paribhadra* bark is proved to be analgesic, anti-inflammatory and emmenagogue. Thus it has a direct effect on prostaglandin release and thereby on dysmenorrhoea. Leaves are having laxative, smooth muscle relaxant and emmenagogue properties, thereby does the *anulomana* of obstructed *Vata*. Antispasmodic and spasmolytic activity of *Paribhadra* relieves excessive muscular contractions further leading to reduction in pain. Leaves are having haemagglutinating activity and anti-spasmodic action. The alkaloids extracted from the leaves are reported to have anti-inflammatory activity and which was isolated from the bark showed muscle relaxant activity. These helped in relieving the pain. There were no side effects observed during the study.

### CONCLUSION

There are no direct references in the classics or *Nighantu*'s regarding the usage of *Paribhadra Patra* and *Twak* on *Kashtartava*. Through an extensive literary review it was revealed that, the drug is

having anti-spasmodic, analgesic, anti-inflammatory and emmenagogue actions. *Kashtartava* is not mentioned as a specific disease entity in Ayurveda, instead is a symptom in *Udavarta*, *Vatala*, *Paripluta*, *Mahayoni*, *sannipatika yonivyapats* and *vataja artavadushti*. On analysis the treatment principle should be *Vata-Kaphahara*, *Anulomaka* and *Arthava shodhaka*. Primary dysmenorrhoea is spasmodic pain during menstruation which does not involve any pelvic pathology. Clinical study showed that, both *Patra* and *Twak* of *Paribhadra* are useful in treating primary dysmenorrhoea. When statistical values were compared, effect of *Paribhadra Patra* appears to be better than *Paribhadra Twak*. No side effects were observed in both the groups in this study, hence *Paribhadra Patra and Paribhadra Twak* can be considered as a safer remedy for *Kashtartava*.

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Source of support: Nil,

Conflict of interest: None Declared

### **Cite this article as**

Dr.Soumyashree K M : A Comparative Clinical Evaluation of *Paribhadra (Erythrina indica Lam.)Patra & Twak* With Special Reference To *Kashtartava* (Primary Dysmenorrhoea); ayurpub;II(5):665-671

**Paribhadra Leaf**



**Paribhadra Bark**



**Paribhadra Patra vati**



**Paribhadra Twak vati**

