

EVALUATION OF EFFICACY OF SHATAPUSHPA PHALA CHURNA IN RAJAKRICH-RITA WITH SPECIAL REFERENCE TO PRIMARY DYSMENORRHOEANidhi Garg¹ Akhil Jain²¹Assistant Professor in Agad Tantra Dept., ²Assistant Professor in Shalakyta Tantra Dept.
Ch. Devi Lal College of Ayurveda and Hospital Jagadhri, Haryana, India**ABSTRACT**

Udavartini is one of the *Yonivyapada* where there is vitiation of *Apana Vata* which causes obstruction to flow of *Raja* and *Raja* comes out with great difficulty with severe *Shoola*. The main symptom of *Udavartini* is *Rajakrichrita* which is similar to dysmenorrhoea, painful periods, or menstrual cramps, is pain during menstruation in pelvis; lower abdomen may be associated with back pain, diarrhea, or nausea. Release of prostaglandins and other inflammatory mediators in the uterus causes the uterus to contract and these substances are thought to be a major factor in primary dysmenorrhoea. It has been proposed that prostaglandins bring about an induction of vasoconstriction of endometrial arterioles, thereby causing endometrial ischemia and pain. Dysmenorrhoea is a commonest gynecological problem faced by women during their adolescence which causes significant discomfort and anxiety. A systematic review of studies in developing countries performed by Harlow and Campbell (2002) has revealed that about 25-50% of adult women and about 75% of adolescents experience pain during menstruation, with 05-20% reporting severe dysmenorrhoea or pain that prevent them from ensuing day-to-day activities¹. Aim of this control study is to compare the effect of *Shatapushpa Phala Churna* and placebo as rice powder in the management of *Rajakrichrita*. This random control study was carried out on the 30 patients divided in two groups. Assessment of results was done by comparing the classical symptoms before and after treatment. The statistical analysis shows that *Shatapushpa* is much effective in the management of *Rajakrichrita*.

Key words: *Rajakrichrita*, *Udavartini*, *Yonivyapada*, dysmenorrhoea, *Shatapushpa*

INTRODUCTION

With the growing awareness people are now turning more towards *Ayurveda*. Dysmenorrhoea itself is not life threatening, but is found to have a profound impact on the daily activities and may result in missing work or school; inability to participate in sports or other activities and it may accentuate the emotional distress brought on by the pain². *Acharya Charaka* has mentioned that *Yoniroga* can't occur without vitiation of *Vata*³.

Again pain is the main feature of *Kashtartava*, so it has strong relation with *Vata*. In classical text it is explained that due to *Vega Dharana* of *Vata*, *Mutra* and *Purisha* the *Apana Vata* gets vitiated and it gets *Udhravagami* i.e. normal *Anulomaka Gati* of *Apana Vayu* changes to *Pratiloma Gati* and this vitiated *Vata* lifts the *Yoni* upward and causes obstruction to flow of *Raja* and *Raja* comes out with great difficulty with severe *Shoola*⁴. In classics

Shatapushpa is explained for *Chikitsa* of all *Yonivyapada*, *Udavartini* in which main symptom is *Rajakrichrita* is one of the *Yonivyapada*⁵. Several herbs are described in *Ayurvedic* literature for management of *Rajakrichrita*. One among them is *Shatapushpa*. In present study an attempt will be made to evaluate efficacy of *Shatapushpa* with a view to find out a therapeutically efficacious, safer, cost effective and easily available drug.

OBJECTIVES: To evaluate the clinical efficacy of *Shatapushpa* fruit *Churna* in the cases of *Rajakrichrita* (primary dysmenorrhoea).

CLINICAL STUDY

Materials and methods- Total 30 patients with complains of pain in menstruation and fulfilling the criteria of inclusion were selected from the O.P.D. and I.P.D. of department of *Striroga* and *Prasuti Tantra*, DGM *Ayurvedic* Medical College Gadag and were registered in An elaborative case taking *Performa* which was specially designed for the purpose of incorporating all aspects of the disease on *Ayurvedic* and *Modern* parlance and all the patients were randomly divided into two groups for this study.

Criteria for selection of Drugs- *Kashtartava* are *Vata* predominant *Tridoshaja Vyadhi*, and selected drug is also best *Vatashamaka* drugs mentioned by all the classics. *Shatpushpa* has mentioned for the treatment of *Udavarta Yonivyapada*, which is one of the main disease condition comes under *Kashtartava* (Primary Dysmenorrhoea).

Preparation of Drugs- The drug was shade dried and fine *Churna* was prepared and filtered in a fine sieve and was kept in air tight packets, in the pharmacy of DGM *Ayurvedic* Medical College and was given in a dose of 3 gram for thrice a day.

Criteria for inclusion

1. Patients coming with chief complaint of painful menses.
2. Age group between 18-30 years.

3. Patients suffering from primary dysmenorrhoea more than 3 cycles.
4. Without the involvement of any secondary disease.

Criteria for exclusion

1. Dysfunctional uterine bleeding.
2. Endometriosis.
3. IUCD induced painful bleeding.
4. All secondary causes leading to dysmenorrhoea.

Investigations

Hematological: Routine hematological examinations like total leucocytes count, differential count, hemoglobin percentage and erythrocyte sedimentation rate (Win Trobe's corrected method) were carried out.

Urine: Routine and microscopic examinations if needed were carried out.

Sonography (U.S.G.): For uterine and adnexal study to rule out secondary dysmenorrhea or any pathology or lesion if suspected were carried out.

Method of study The method adopted in present study is Randomized, Clinical, Open study. **Posology** Patients included in the present study were randomly divided into following two groups: Group A was treated with 3 g of *Shatapushpa Phala Churna* in each dose, for three doses per day (t.i.d), for 10 days, for 3 consecutive menstrual cycles and follow up of 3 months. Group B was treated with 3 g of rice powder in each dose, for three doses per day (t.i.d), for 10 days, for 3 consecutive menstrual cycles and follow up of 3 months.

Advice given to the patients

Ahara: To take fruits, green vegetables, simple foods. To avoid spicy food, fried food, fermented food, non-veg. on and around menstruation.

Vihara: To take rest, do *Pranayama* for 10 minutes. To avoid heavy weight lifting, journey, heavy work, tension.

Criteria of assessment- The improvement in the patient was assessed mainly on the basis of relief in the signs and symptoms of the disease. To assess the effect of therapy objectively, all the signs and symptoms were given scoring depending upon their severity.

Table 1, Grading of chief complaints i.e. Pain (Dysmenorrhoea)

Grade	1. Severity of pain (Multidimensional scoring pattern)
0	Menstruation is not painful and daily activity unaffected
1	Menstruation is painful and daily activity not affected. No analgesic required.
2	Menstruation is painful and daily activity affected. Analgesic drug were needed.
3	Menstruation is painful, she cannot do even her normal routine work and has to absent from class / office during menses. Had to consult physician and had to take analgesic and antispasmodics but poor effect.
	2. Duration
0	No pain in menstruation
1	Pain persist less than 12 hours
2	Pain continue for 12 -24 hours
3	Pain continue more than 24 hours

Table 2, Grading of Associated Symptoms:

	1. Artava Pramana (by number of Pad)
0	6 – 7 pads/cycle
1	4 – 5 pads/cycle
2	2 – 3 pads/cycle
3	Spotting or 1 pad/cycle
	2. Artavasrava Avadhi
0	Duration of menses 3-5 days.
1	Duration of menses 2 days.
2	Duration of menses 1 day.
	3. Yatochitkala Adarshanam (interval)
0	25-35 days
1	36-45 days
2	46-55 days
3	56-65 days
	4. Praseka (Nausea)
0	No Praseka
1	2 – 3 times/day
2	4 – 5 times/day
3	>5 times/day
	5. Chhardi (Vomiting)
0	No Chhardi
1	Occasionally
2	1 – 2 times/day
3	More than 2 times/day

	6. Vibandha (Constipation)
0	No <i>Vibandha</i>
1	Frequency once in a day, but hard stool pass.
2	Frequency of stool alternate day and patient feels difficulty in defecation.
3	Frequency once per 2-3 days, difficult in defecation
	7. Shrama (Fatigue)
0	No <i>Shrama</i>
1	Fatigue by single extra work other than daily routine.
2	Fatigue by normal daily routine.
3	Severe fatigue even without work.
	8. Aruchi (Loss of Appetite)
0	Takes full diet and also presence of proper appetite at the next meal hour
1	Presence of moderate appetite & promote appearance of appetite in next meal hour
2	Presence of low appetite but delayed appearance of appetite in next meal hour.
3	Persisting low appetite or frequently losing appetite and unable to consume even low diet
	9. Shirashoola (Headache)
0	No headache
1	Headache, ones in menstruation persist for less than 6 hours.
2	Frequent headache -2-3 times per menstruation, daily activity not affected.
3	Persistent headaches throughout the menstruation, daily activity affected.
	10. Swedadhikya (Excessive sweating)
0	No sweating
1	Occurs only at working in hot or doing hard work
2	More in day time and when associated or following hot flushes only
3	Excessive sweating to that extend that patient feels like taking bath changing clothes
	11. Tamodarshana (Faints)
0	No faints
1	Occasionally ones per menstruation
2	01 faint per each menstruation.
3	More than 01 times per each menstruation.

General Evaluating Scale

- 0 Absence of symptoms
- 1 Mild symptoms.
- 2 Moderate symptoms.
- 3 Severe symptoms.

Criteria for the assessment of overall effect of the therapies:

Complete remission: 76%-100% relief in the signs and symptoms.

Moderate improvement: 51%- 75% relief in the signs and symptoms.

Mild improvement: 26%-50 % relief in the signs & symptoms.

Unchanged: 00%-25% relief in the signs & symptoms.

Statistical Evaluation of results-

The obtained data were analyzed statistically. The values were expressed as percentage of Mean reduction, SE, SD, t and P values. The data were analyzed by paired" test. The level of P between 0.10 to 0.001, and P<0.001 was consider as statistically significant and highly significant respectively. The Level of significance was noted and inter-

puted, according to the calculated, t value. P taken as insignificant.
value more than 0.05 (P>0.05) results were

RESULTS OF CLINICAL STUDY

Effects of *Shatapushpa Phala Churna* on *Kashtartava* (Group A)

Table 3: Group A–Effect of therapy on cardinal symptoms (Paired t test)

	No. of patients	Mean		% of Relief	SD	SE	t	P	Remarks
		BT	AT						
Severity of pain	15	26	14	46.15%	0.4	0.10	8	<0.001	Significant
Duration of pain	15	32	21	34.38%	0.44	0.11	6.6	<0.001	Significant

Table 4: Group B – Effect of therapy on associated symptoms (Paired t test)

Associated Symptoms	Patients	Mean		% of Relief	SD	SE	t	P	Remarks
		BT	AT						
<i>Alpartava</i>	1	01	00	100%	0.26	0.07	01	>0.05	NS
<i>Artavasrava Avadhi</i>	1	1	00	100%	0.25	0.06	0.94	>0.05	NS
<i>Yatochitkaladarshanam</i>	1	01	00	100%	0.25	0.06	0.94	>0.05	NS
<i>Praseka</i>	7	7	6	14.29%	0.25	0.06	1.17	>0.05	NS
<i>Chhardi</i>	6	8	7	12.5%	0.25	0.06	0.94	>0.05	NS
<i>Vibandha</i>	9	17	16	5.9%	0.25	0.06	0.94	>0.05	NS
<i>Shrama</i>	10	19	18	5.26%	0.25	0.06	0.94	>0.05	NS
<i>Aruchi</i>	10	19	18	5.26%	0.25	0.06	0.94	>0.05	NS
<i>Shirashoola</i>	9	17	16	5.9%	0.25	0.06	0.94	>0.05	NS
<i>Swedadhikya</i>	8	14	13	7.14%	0.25	0.06	0.94	>0.05	NS
<i>Tamodarshana</i>	9	16	15	6.25%	0.25	0.06	0.94	>0.05	NS

Effects of rice powder on *Kashtartava* (Group B)

Table 5: Group B –Effect of therapy on cardinal symptoms (Paired t test)

	No. of patients	Mean		% of Relief	SD	SE	t	P	Remarks
		BT	AT						
Severity of pain	15	23	20	13.04%	0.4	0.10	2	>0.05	Not Significant
Duration of pain	15	29	27	6.90%	0.35	0.09	1.44	>0.05	Not Significant

Table 6: Group B – Effect of therapy on associated symptoms (Paired t test)

Associated Symptoms	Patients	Mean		% of Relief	SD	SE	t	P	Remarks
		BT	AT						
<i>Alpartava</i>	1	01	00	100%	0.26	0.07	01	>0.05	NS
<i>Artavasrava Avadhi</i>	1	1	00	100%	0.25	0.06	0.94	>0.05	NS
<i>Yatochitkaladarshanam</i>	1	01	00	100%	0.25	0.06	0.94	>0.05	NS

Praseka	7	7	6	14.29%	0.25	0.06	1.17	>0.05	NS
Chhardi	6	8	7	12.5%	0.25	0.06	0.94	>0.05	NS
Vibandha	9	17	16	5.9%	0.25	0.06	0.94	>0.05	NS
Shrama	10	19	18	5.26%	0.25	0.06	0.94	>0.05	NS
Aruchi	10	19	18	5.26%	0.25	0.06	0.94	>0.05	NS
Shirashoola	9	17	16	5.9%	0.25	0.06	0.94	>0.05	NS
Swedadhikya	8	14	13	7.14%	0.25	0.06	0.94	>0.05	NS
Tamodarshana	9	16	15	6.25%	0.25	0.06	0.94	>0.05	NS

Table 7: Overall effect of therapy on severity of pain and duration of pain

Effect of Therapy	Group A	Group B
	% of patients	% of patients
Complete remission (76-100%)	20%	03.33%
Moderate improvement (51-75%)	0%	0%
Mild improvement (26-50%)	56.67%	13.34%
Unchanged (0-25%)	23.33%	83.33%

DISCUSSION

Effect on Severity of Pain: *Shatapushpa Phala Churna* provided significant ($P < 0.001$) relief and rice powder provided insignificant ($P > 0.05$) relief in severity of pain. Hence the effect of *Shatapushpa Phala Churna* was better in relieving the severity of pain in comparison to rice powder group.

Effect on Duration of Pain:

Shatapushpa Phala Churna provided significant ($P < 0.001$) relief and rice powder provided insignificant ($P > 0.05$) relief in duration of pain. Hence the effect of *Shatapushpa Phala Churna* was better in relieving the duration of pain in comparison to rice powder group.

Effect on Alpartava:

Shatapushpa Phala Churna and provided insignificant ($P > 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Alpartava*. Hence the effect in both the groups is insignificant for *Alpartava*.

Effect on Artavasravavdhi:

Shatapushpa Phala Churna provided insignificant ($P > 0.05$) relief in and rice powder provided insignificant ($P > 0.05$) relief in *Artavasravavdhi*. Hence the effect in both the groups is insignificant for *Artavasravavdhi*.

Effect on Yatochitkaladarshanam:

Shatapushpa Phala Churna provided insignificant ($P > 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Yatochitkaladarshanam*. Hence the effect in both the groups is insignificant for *Yatochitkaladarshanam*.

Effect on Praseka: *Shatapushpa Phala Churna* provided significant ($P < 0.02$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Praseka*. Hence the effect of *Shatapushpa Phala Churna* was better in relieving the *Praseka* in comparison to rice powder group.

Effect on Chhardi: *Shatapushpa Phala Churna* provided insignificant ($P > 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Chhardi*. Hence the effect on *Chhardi* was insignificant in both groups.

Effect on Vibandha:

Shatapushpa Phala Churna provided insignificant ($P > 0.05$) and rice powder provided insignificant ($P > 0.05$) relief in *Vibandha*. Hence the effect on *Vibandha* was insignificant in both the groups.

Effect on Shrama:

Shatapushpa Phala Churna provided significant ($P < 0.02$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Shrama*. Hence it can be said that the effect of *Shatapushpa Phala Churna* was better in relieving the *Shrama* in comparison to rice powder group.

Effect on Aruchi:

Shatapushpa Phala Churna provided insignificant ($P > 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Aruchi*. Hence the effect on *Aruchi* was insignificant in both the groups.

Effect on Shirashoola:

Shatapushpa Phala Churna provided significant ($P < 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Shirashoola*. Hence the effect of *Shatapushpa Phala Churna* was better in relieving the *Shirashoola* in comparison to rice powder group.

Effect on Swedadhikya:

Shatapushpa Phala Churna provided significant ($P < 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Swedadhikya*. Hence the effect of *Shatapushpa Phala Churna* was better in relieving the *Swedadhikya* in comparison to rice powder group.

Effect on Tamodarshana:

Shatapushpa Phala Churna provided insignificant ($P > 0.05$) relief and rice powder provided insignificant ($P > 0.05$) relief in *Tamodarshana*. Hence the effect on *Tamodarshana* was insignificant in both the groups.

Overall effect of Therapy on cardinal symptoms:

Among the 15 patients after the therapy of 10 days for three months in Group A, 20% patients got complete remission; 56.67% patients got mild relief and 23.33% patients were unchanged and in Group B, 3.33% patients got complete remission; 13.34% patients got mild relief and 83.33% patients were unchanged. Hence the effect of *Shatapushpa Phala Churna* was better in relieving the overall symp-

toms of *Rajakrichrita* in comparison to rice powder group.

Follow-up study

During follow up period, a significant difference in recurrence of symptoms was noted. Patients in *Shatapushpa* group showed less the recurrence of features in comparison to those in rice powder group. It suggests the effects of *Shatapushpa* are more prolonged and lasting as compared to rice powder.

Probable mode of action of Shatapushpa-

- 1 Because of *Katu Rasa*, *Katu Vipaka* and *Ushna Veerya* this drug will help in *Rajapra-vartana*.
- 2 Because of *Ushna Guna* and *Vata Shamaka* property *Shatapushpa* will help in *Shamana* of *Shoola*.
- 3 *Kapha Shamaka* property will help in alleviating *Kapha Dosha*, which will relieve obstruction to flow of *Raja*.
- 4 Because of its *Anulomaka Guna* it will cause *Anulomana* of *Doshas* and *Malas* and it will change *Gati* of *Apana Vayu* from *Pratiloma* to *Anuloma* that in the turn will help in its proper functioning i.e. *Pravartana* of *Raja* and *Mala*
- 5 Because of *Rochana* and *Agnivardhaka* properties it will help in *Ama Pachana* and *Ama* is considered as *Moola* of all the *Vyadhis*.
- 6 Because of *Rasayana Guna* and *Madhura Rasa* it alleviates *Vata* and increases the *Rasa Dhatu* so its *Upadhatu Artava* also increases.

CONCLUSION –

Shatapushpa has *Katu*, *Tikta Rasa*, *Katu Vipaka*, *Laghu*, *Snigdha*, *Tikshna Guna* and *Ushna Veerya* and *Kapha Vata Shamaka* properties. *Rajakrichrita* is a *Vata* and *Kapha Pradhan Vyadhi* and the main culprit *Dosha* is *Vata*. Due to *Kapha Prakopa* the *Srotas* gets obstructed by *Kapha* and this leads to the *Prakopa* along with *Pratiloma Gati* of *Apana Vayu* leading to *Rajakrichrita*.

The trial drug *Shatapushpa* showed highly significant result in subjective Parameters. In the

clinical trial drug *Shatpushpa* was found to be more efficacious as compare to rice powder.

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