Research Article

MANAGEMENT OF SPASMODIC DYSMENORRHEA (*UDAVARTA YONIVYAPADA*) WITH *CHATURBEEJA CHURNA* AND *YOGIC* PRACTICES

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ABSTRACT

In *Ayurvedic* texts, diseases of the female reproductive system have been collectively described as *Yoni Vyapada. Udavarta Yoni Vyapada* is one in which the woman feels pain and distress in the peri-menstrual period along with systemic symptoms. It is an extremely common disease affecting majority of women even in present day world. It is caused by vitiation of *Vayu*. According to the clinical features, *Udavarta Yoni Vyapada* can be correlated with primary dysmenorrhoea.

Chaturbeeja Churna is mentioned in *Bhava Prakasha Nighantu,* as *Vata shamaka. Yogic* practices regulate body mechanism and improve the psychology of the patients.

In the present study, 50 patients were studied. The results have been presented after taking into account every aspect of the history of the patient. Then thorough examination was done. After that all the symptoms were observed in these patients during the trial for improvement. These patients were treated in single group. Patients were treated with *Chaturbeeja churna* with yogic practices.

Chaturbeeja Churna 3g bd with hot water along with specific *Yogic* Practices for 3 menstrual cycle. 26 patients were markedly improved, 15 moderately improved and 9 patients were improved. From the above discussion, we can say that therapy (*Chaturbeeja Churna* and *Yogic* with practices) had statistically highly significant results and was very effective.

INTRODUCTION

Dysmenorrhoea literally means painful menstruation. But, a more realistic and practical definition means painful menstruation of sufficient magnitude so as to incapacitate day to day activities. In other words, it may be defined as pain and cramping during menstruation that interferes with normal routine and requires over the counter or prescription medication. It is the most common type of cyclic pain.

Historical Review

In the 19th century, dysmenorrhoea was believed to be always due to some mechanical obstruction. *Mackintosh* in 1832 reported 27 cases in which he dilated the cervix and 24 were cured. *Sir James Simpson* wrote a note entitled 'nulla (obstructive) dysmenorrhoea'. *Morgagni Olderan* first named membranous dysmenorrhoea in 1849. Flies-a rhinologist described nasal dysmenorrhoea. Robert battey first performed oophorectomy for dysmenorrhoea in 1872. In 19th century, neuralgic dysmenorrhoea was a common term.

Etymology: Dysmenorrhoea (Greek) -*dis-men-o-rea Dys/Dis*–Difficult, bad, painful, disordered, *men*– month, *Rheine*– to flow.

Thus, dysmenorrhoea means pain or difficulty with menstruation.

Incidence

The results of epidemiological studies performed over the last 50 years give a variable incidence for dysmenorrhoea. This is due to the fact that pain is a subjective symptom and cannot be assessed accurately by an outsider. Different

women react to same pain in different ways. Discomfort during menstruation ranges from mild to severe pain that incapacitate the patient. Mild discomfort occurs in majority of women. 5–10% of girls in late teens and early twenties suffer from severe dysmenorrhoea. 50% of menstruating women suffer from dysmenorrhoea, and 10% are incapacitated for 1 to 3 days each month. But, only 5–8% seek medical advice.

Factors Influencing Pain

1. Age: It affects younger women (18–30 years), but may persist into the 40's.

2. Occupation: Groups of students (school girls, college students–who have to do mental work), house wives and women in jobs provide different statistics.

3. Family history: A dysmenorrheic mother usually has a dysmenorrheic daughter. There is positive family history in most of the cases.

4. Marital status: Marriage may cure dysmenorrhoea by providing happiness and security. It is mostly prevalent in young single women leading sedentary lives.

5. Psychological factors

The following factors are implicated:

- ❖ Attitude towards menstruation learned from mothers, sisters and friends.
- ❖ Unhappiness at home or at work.
- ❖ Fear or loss of employment.
- ❖ Anxiety over examinations.
- ❖ Unsatisfied sexual urge.
- ❖ A disharmonious marriage.
- ❖ As an excuse to avoid doing something which is disliked.

5. Social Status: High incidence in women of higher social status than in low income group because of varying tolerance to pain. The poor women may have higher pain threshold describing her pain as moderate and tolerable which the rich women may call severe and intolerable.

Factors

1. Age
2. Occupation
3. Family history
4. Marital status
5. Psychology Social status

includes the anatomy of uterus and the menstrual cycle. It further contains the etymology, definition, types, etiology, patho-physiology, features and management of dysmenorrhoea .

Classification:- It is classified into the following four groups.

1. Spasmodic
2. Congestive
3. Membranous
4. Ovarian

Primary/Spasmodic/Idiopathic Dysmenorrhoea

Primary dysmenorrhoea means menstrual pain without any pelvic pathology.

Patient profile

- ❖ Mostly confined to adolescents.
- ❖ It appears within 1-2 years of menarche, when ovulatory cycles are established.
- ❖ Almost always confined to ovulatory cycles.
- ❖ Mother or sister may be dysmenorrheic.
- ❖ More common amongst girls from affluent society.

Historical review

There is no reference in *Atharvaveda, Manusmriti, Agnipurana, Bhela, Harita, Sharangdhara,* and *Kasyapa.* Description only in *Charaka, Susruta, Vagbhata, Bhava prakasha, Yogaratnakara* and *Madhava Nidana.*

Etymology

"*Udavarta*" is derived from "*Vrit*" *Dhatu* by adding two prefixes *'Ut'* and '*Aa*' meaning a disease characterized by inability to pass *Mala*, *Mutra* and *Vayu.* Here '*Ut*' means upward movement, *'Aa'* means complete, *'Vrit'* means circular movement.

Hence, it means a disease which has upward circular motion of *Mala, Mutra* and *Vayu* which are not eliminated through their natural passages. *'Ut'* + *"Avarta"* means the upward movement of circle of *Vayu* i.e. the circular movement of *Vayu* is upward direction is known as *Udavarta. Vega vidharana* causes the *Vayu* to move in opposite direction causing *Udavart.* Thus, *Udavarta* is a disease where vitiated *Vayu* moves in upward direction in circular motion causing symptoms in the female reproductive tract. The etymology of *Udavarta* is given in *Madhukosha* commentary only.

Synonyms: *Udavritta, Udavartini.*

Definition

The disease characterized by painful and frothy menstrual discharge is known as *Udavarta Yoni Vyapada.*

Etiology (*Nidana*)

 i) General *(Samanya hetu)*
 ii) Specific (*Vishishta hetu*)

i) Nidana–Samanya

The different classics have mentioned the vitiation of *Vayu* as the main cause of *Yoni Vyapada* along with other factors. Since, *Udavarta* is also one of these, the factors are also related.

Charaka has opined that *Mithya-achara, Pradusta Artava*, *Bija dosha* and *Daiva* are the causes of these twenty *Yoni Vyapada*.[1]

- *Chakrapani* comments that *Mithya-achara* includes *Mithya-ahara* (abnormal dietetics) and *Mithya-vihara,* abnormalities of *Artava* and *Bija* i.e. either ovum or sperm or both and *Daiva* (result of wrong done in past life or curses of God. In the absence of any apparent cause, the diseases are said to develop due to curses of God) are the causes of *Yoni Vyapada.*

- *Acharya Susruta* says that besides these, a very young woman or a woman having dry body does excessive coitus with *Pravriddha linga*, then her *Vayu g*ets aggravated and reaches the *Yoni* causing *Yoni Vyapada.[2]*

- *Vagbhata* says *Bija Dosha* refers to the **Yoni Arambhaka** *Bija Dosha* of the female at the time of her birth. Considering the description of all the classics collectively the following eitiological factors emerge out.[3]

Factors

 i) Mithya-achara

 ii) Pradushta artava

 iii) Bija Dosha

 iv) Daiva

1.*Mithya-achara*

It includes the *Mithya-ahara* (abnormal or improper dietary habits), *Mithya-vihara* (abnormal made of life or improper life style). Various environmental factors operating either during the embryonic life of the girl also come under this heading.

a**)** *Mithya- ahara*

Ruksha, Sheeta dravya, Alpa, Laghu ahara sevana, Asatmya, Atyadhika, Vishama ahara sevana, Adhyashana, Abhojana etc.

b) *Mithya-vihara*

Abnormal coitus positions, *Pravriddha linga*, use of artificial metal organs (*Apadravya),* *Ativyavaya, Atiprajagarana, Vishama upchara (Shodhan chikitsa), Atilanghana, Plavana, Ati-vyayama, Chirkari roga, Adharniya vegavarodha, Kashtashayana, Divashayana, Abhighata etc.*

c) *Mansika*

Chinta, Shoka, Krodha, Bhaya, Lobha, Harsha, Irshya, Tanava etc.

2. *Pradushta artava*

Pradushta artava here refers to one vitiated by *Vatadi Doshas,* which is expelled abnormally having the features of these *Doshas.*

3. *Bija dosha*

Various chromosomal and genetic abnormalities come in this group.

4. *Daiva* –It implies the effect of the single acts of the previous life. It is the common cause of all the diseases. When a specific etiological factor of the disease is not found, then from effect (i.e. manifested disease) one can infer its being caused by *Daiva* or *Karma.* Unknown or idiopathic eitiological factors come in this category.

II*) Vishista nidana*

The specific cause of *Udavarta Yoni vyapada* is *Vega udavartana*. *Vega* means "to flow". When the natural urges of *Mala, Mutra* and *Vayu* are suppressed, they move in the reverse direction causing vitiated *Vayu* to move upwards and fill the *Yoni* causing *Udavarta*. There is *Pratiloma Gamana* of the *Vayu*.[4]

Samprapti

The origin of disease, caused by vitiated *Dosha*s moving in the body in all directions, is known as *Samprapti*. The sequence of production of a disease from vitiation of *Doshas* to the manifestation of the features of the ailment is known as *Samprapti*. It encompasses the dispersion of vitiated *Dosha*s and *Dosha-dushya Samurchhna* at the specific site of *Kha-vaigunya* and the establishment of the disease.

In the present context of *Udavarta yoni vyapada*, we can make out the following *Samprapti* in two ways:

Drug Review

Properties and Actions of *Chaturbeeja Churna*

The vitiation of *Vata Dosha* is major manifestation of *Udavarta Yoni Vyapada*, especially *Apana Vayu* along with *Kapha* which cause *Sanga, Pratiloma Gamana* of *Vayu* and *Baddhta* of *Artava*, and manifest as difficult and painful menstruation. It is mentioned in *Bhava Prakasha* that *Chaturbeeja Churna*, which contains *Methika, Chandrashura, Kalajaji* and *Yavanika,* when taken daily cures *Vata* disorders, *Ajirna, Shoola, Adhmana, Parshvashoola and Kativyatha.* These drugs have *Vata-shamaka, Deepana, Shoolahara, Jwarahara, Garbhashaya-shodhaka* properties.[6] Thus, *Chaturbeeja Churna* is the drug chosen for trial.

Probable Mode of Action

Chaturbeeja Churna has *Snigdha Guna* 50% and *Ushna Virya* (100%) with *Vata-Kaphahara Dosha-karma* (100%) which pacified the vitiated *Vata Dosha* mainly due to *Ushna Virya. Further, Laghu Guna* (100%), *Ruksha Guna (50%), Tikta Rasa* (75%) pacified the slight *Kapha* vitiation. Hence, the

properties of *Chaturbeeja Churna* can be made out as follows:

- **Guna –Laghu Rasa - Katu**
- **Vipaka – Katu Virya - Ushna**
- **Dosha Karma - Vata-Kaphahara.**[7] The drug mainly works with *Ushna Virya* as it is the most important property which determines the action of the drug.
- Individually, the drugs have the properties which help to cure dysmenorrhoea .

The prepared *Churna* has bitter (*Katu*) taste, thus having *Mukhashodhaka* and *Agnivardhaka* properties*.* So, it increases appetite, digestion and reduces nausea and vomiting. In formulations, component drugs have synergistic and antagonistic actions and net effect is seen in the final formulation. As mentioned in *Charaka*[1], some drugs act by *Rasa,* some by *Virya,* some by *Guna,* some by *Vipaka* and some act by *Prabhava*. Also, the drug acts by that factor which predominates the others in its composition.

clinical study

Materials and Methods

1. Criteria For Selection of Drug

The contents of the drug are all *Ushna* and *Vatashamaka*. Moreover, Yogic practices regulate body mechanism and improve the psychology of the patients. Hence, *Chaturbeeja Churna* and *Yogic* Practices have been chosen for the trial.

Preparation of Drug

- The drug was prepared in the College pharmacy under the supervision of Dravya Guna and Rasa Shastra Department.

Study Design

- The patients in the study were into single group-
- **Trial Group:** *Chaturbeeja Churna* (Test) *Yogic* Practices (Test).

Determination of Dose: *Chaturbeeja Churna* 3g bd with hot water along with specific Yogic Practices for 3 menstrual cycle

Duration of trial: Three menstrual cycles.

Fulfilment of inclusion criteria

- Consent of patient after making her aware of the merits/demerits of the trial.
- Registration of the patient.
- Investigations done before inclusion into the trial.
- Follow up of the patient every month for assessment and clinical evaluation.
- Data so available and deducted clinically was statistically analysed.

Criteria of Inclusion

1. Patients coming with chief complaint of *Udavarta* with scanty or average amount of menses along .
2. Age group:- Between 12 – 35 years.
3. Patients suffering for more than 6 cycles.

Criteria of Exclusion

1. Patient not willing for trial.
2. Patients having congestive dysmenorrhoea.
3. Patients below 12 years and above 35years.
4. Patients with chronic general illness.
5. Patients with intrauterine contraceptive devices.
6. Menorrhagia
7. Any anatomic or uterine pathology – fibroid, adenomyosis,

Laboratory Investigations

1. Haematological: Hb, TLC, DLC, ESR
2. ESR – To know rate of any infection.
3. WBC, TLC– To rule out infection if any.
4. Urine - Routine and microscopic examination.
5. Sonography (U.S.G.): For uterine and adenexal study if needed to rule out any pathology or lesion.

Table 1: Parameters and Gradation

| Grading	0	1	2	3
Intensity	No pain	Mild	Moderate	Severe
Duration	No pain	Up to 24hrs	24to <48hrs	48-<72hrs
Nausea	Absent	1-3times/day	4-5times/day	>5times/day
Vomiting	Absent	Occasionally	1-2times/day	>2times/day
Fever	Absent	Mild	Moderate	Severe
Headache	Absent	Mild	Moderate	Severe
Anorexia	Absent	Mild	Moderate	Severe
Nervousness	Absent	Mild	Moderate	Severe
Irritability	Absent	Mild	Moderate	Severe
Constipation	Absent	Mild	Moderate	Severe

Clinical Study

Observations – Observations

In the present study, 50 patients were studied. The results have been presented after taking into account every aspect of the history of the patient. Then thorough examination was done. After that all the symptoms were observed in these patients during the trial for improvement. These patients were treated in single group. Patients were treated with *Chaturbeeja churna* with yogic practices.

The patients were advised nutritious diet regime. The patients followed the advice and completed the trial with full compliance.

The detailed observations of the study are as follows.

Table 2: Incidence of age in both groups

| Age (Yrs)	Total patients	Percentage
16– 20	15	30%
21– 25	23	46%
26– 30	10	20%
31– 35	2	4%
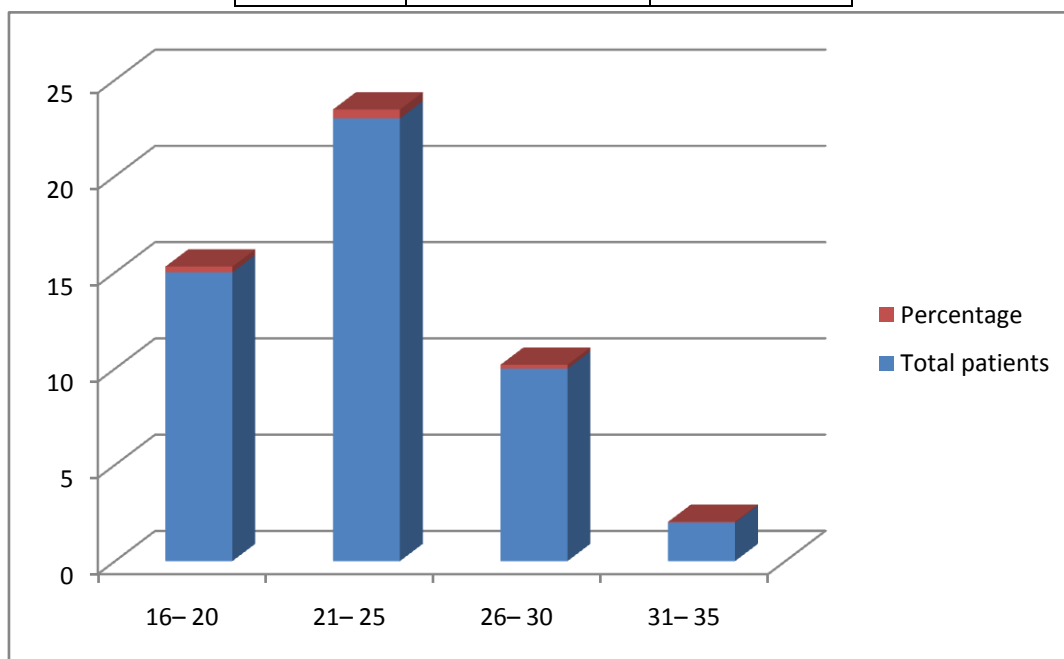
It reveals that maximum patients were in age group 21–25 yrs with 46%.

1. Majority of the patients were in 16-25 yrs age group (76%), unmarried (84%), *Hindu* (98%), educated (96%), of middle class (82%), students (68%) and residents of urban area (70%).

Table 3: Incidence of Occupation

Occupation	Total	Percentage
Student	34	68%
Labourer	1	2%
House wife	9	18%
Private Job	5	10%
Business	1	2%
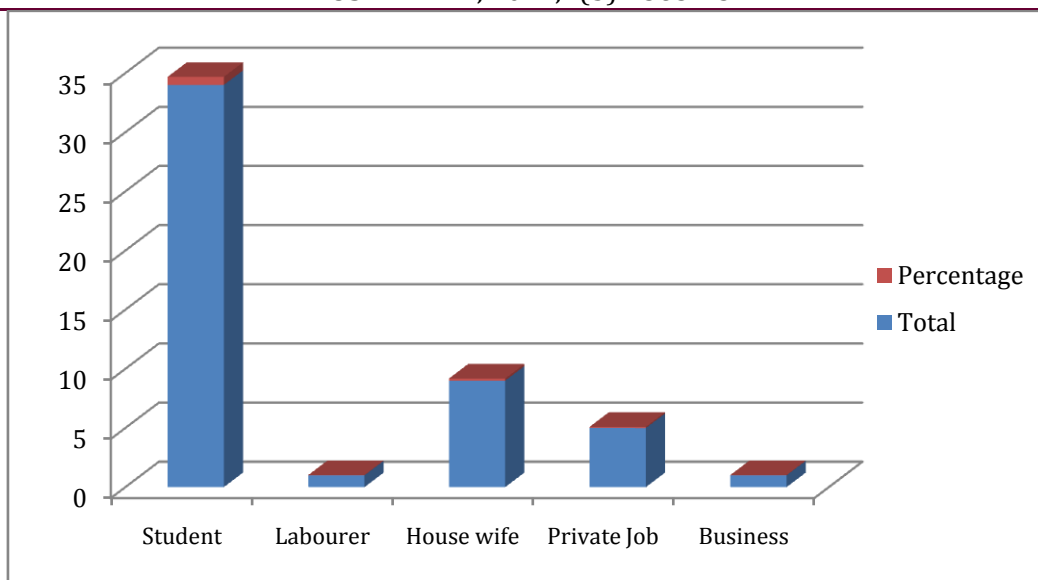
The students formed the group of maximum patients i.e. 68%.

2. Majority of patients (66%) had vegetarian diet, regular dietary habits (76%) and medium to good appetite (86%).

3. 58% patients had spicy food intake and 64% patients had *Lavana* and *Amla rasa* dominancy in diet which is *Vata –Prakopaka.*

4.Majority had normal mental state (68%), rest (32%) had abnormal state of mind, still predisposing them to risk factors.

5. Majority (70%) patients had age of menarche between 13-15 years, normal duration (76%), interval (82%), regular cycle (84%), with moderate amount of blood loss during menstruation (88%).

6. Incidence of duration of complaints was maximum for >4 years (68%).

7.Incidence of onset of pain was maximum for menstrual (78%), spasmodic nature (94%), severe intensity (78%), upto 72hrs (54%), in both inguinal and hypogastrium (66%) and radiation to thighs and back in 68% of patients 58% had sleep disturbed due to pain.
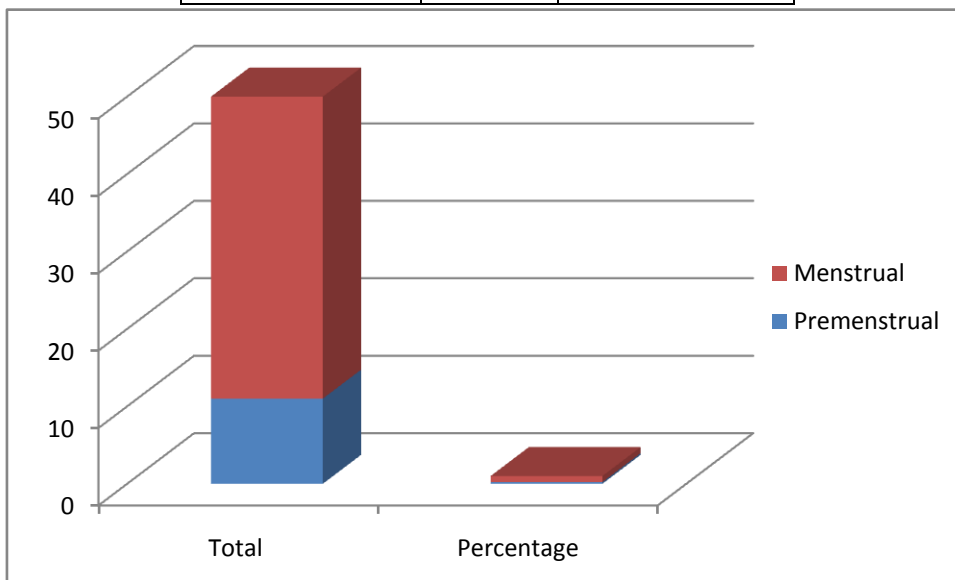
Table 4: Incidence of Nature of Pain

Nature	Total	Percentage
Spasmodic	47	94%
Dullache	3	6%
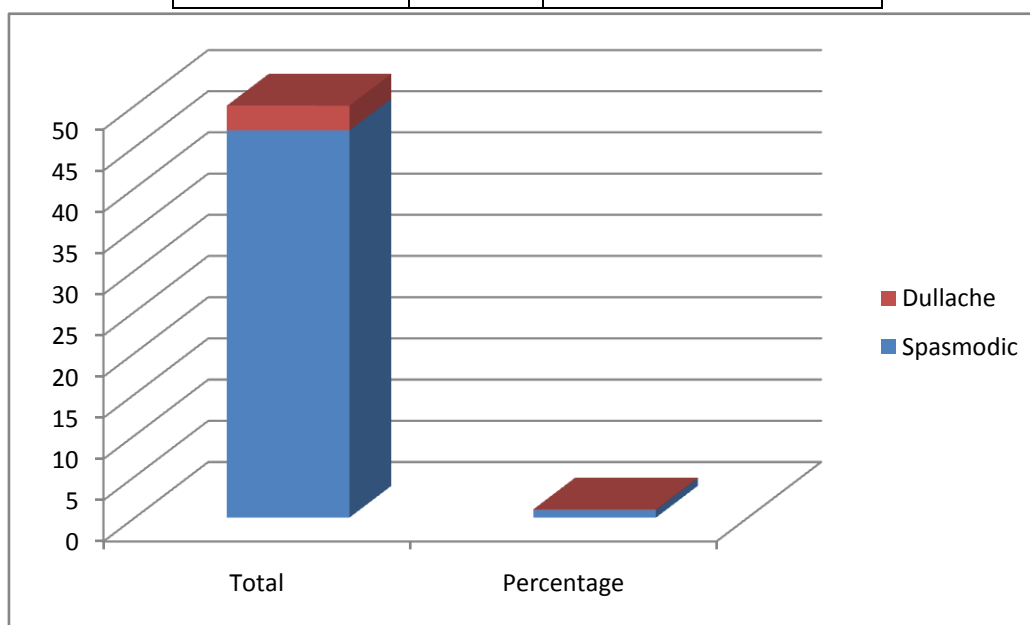
The table shows that maximum 94% of patients had spasmodic pain.

Table 5: Incidence of onset of pain

| Onset	Total	Percentage
Premenstrual	11	22%
Menstrual	39	78%

The table reveals that 78% of patients had menstrual onset of pain.

8. 52% patients had to take drug assistance for relief of pain.

9. Incidence of patients having positive history of dysmenorrhoea in family (52%), indicating the hereditary tendency of this disease

Table 6: Incidence of Family history

| Assistance	Total	Percentage
Present	26	52%
Absent	24	48%
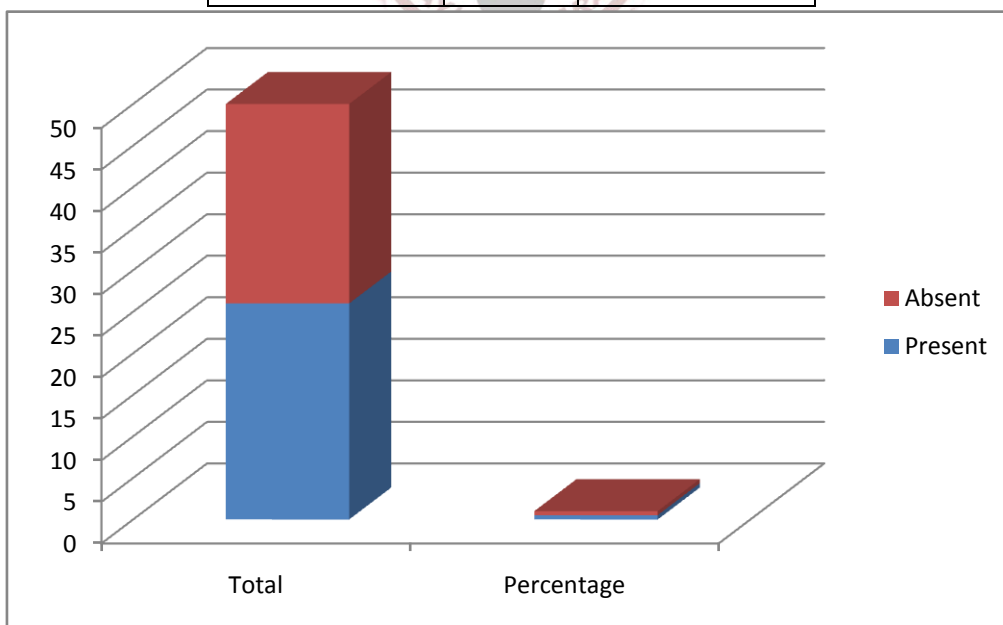
The total of 52% patients had positive family history of dysmenorrhoea.

10. Incidence of premenstrual features-was maximum for irritability (80%), anorexia (66%), nausea (56%), nervousness (54%), giddiness (50%), diarrhea (44%), headache (36%), breast tenderness (26%), vomiting (24%), fever (24%), constipation (22%) and excessive sleep (12%). Rest of the features were present in very small percentage.

Table 7: Incidence of Premenstrual features

Symptoms	Total	Percentage
Nausea (*Hrillas*)	28	56%
Vomiting (*Chhardi*)	12	24%
Breast tenderness	13	26%
Fever (*Jwaranubhuti*)	12	24%
Headache (*Shirahshoola*)	18	36%
Giddiness (*Bhrama*)	25	50%
Diarrhoea (*Atisara*)	22	44%
Constipation (*Malasanga*)	11	22%
Anorexia (*Aruchi*)	33	66%
Nervousness	27	54%
Irritability	40	80%
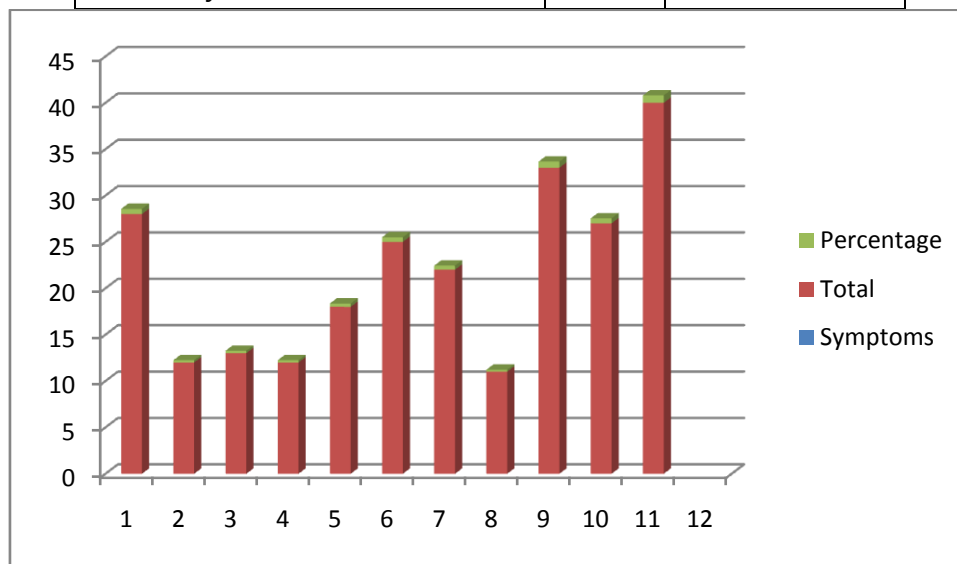
RESULTS

Table 8: Statistical analysis of effect of therapy

Symptom	Mean score		Relief		Paired 't' test			
	B.T.	A.T.	Diff.	In %	S.D. $\pm$	S.E. $\pm$	T	P
Intensity	2.8	0.68	2.12	75.71	0.833	0.167	12.7	<0.001
Duration	1.88	0.52	1.36	72.34	0.907	0.181	7.49	<0.001
Nausea	1.92	0.75	1.42	73.96	0.835	0.241	4.84	<0.001
Vomiting	1.5	0.25	1.25	83.33	0.500	0.250	5.00	<0.05
Breast t.	1.88	0.57	1.31	69.68	0.488	0.184	6.97	<0.001
Fever	1.2	00	1.2	100	0.447	0.200	6.00	<0.01
Headache	1.25	00	1.25	100	0.707	0.250	5.00	<0.01
Giddiness	1.36	0.18	1.18	86.66	0.603	0.182	6.5	<0.001
Diarrhoea	1.462	0.15	1.31	89.46	0.555	0.154	7.5	<0.001
Constipation	1.75	0.5	1.25	71.43	0.957	0.479	2.61	>0.05
Anorexia	2.0	0.23	1.77	88.45	0.660	0.183	8.40	<0.001
Nervousness	1.89	0.33	1.56	82.54	0.833	0.278	4.4	<0.01
Irritability	1.78	0.5	1.28	71.91	0.583	0.137	8.09	<0.001
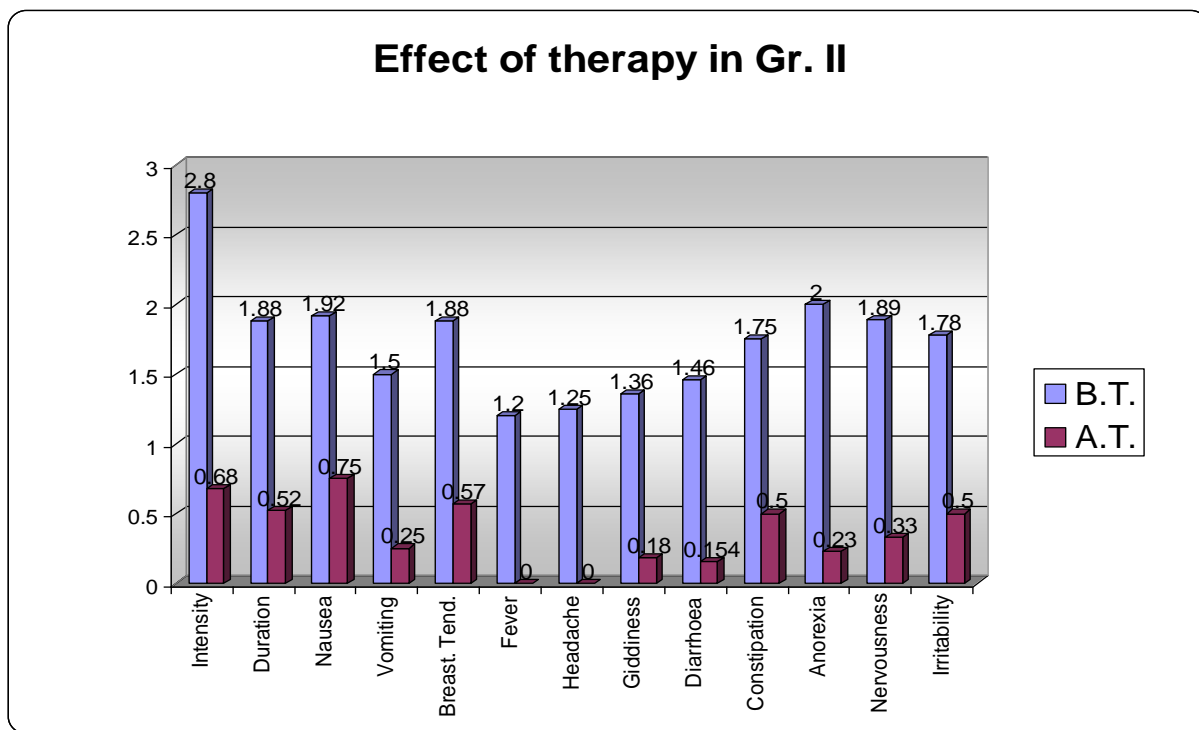
Effect of Therapy (Drug and Yogic Practices)

1. **Intensity of pain:** Mean score before treatment was 2.8 which was reduced to 0.680 after treatment. Relief in percentage was 75.71, which is significant at $p<0.001$ (t=12.730).

2. **Duration of pain:** Mean score before treatment was 1.88, which was reduced to 0.52 after treatment. Relief in percentage was 72.34, which is significant at $p<0.001$ (t=7.494).

3. **Nausea:** The mean score before treatment was 1.92, which was reduced to 0.750 after treatment. The percentage of relief was 73.96, which is significant at $p<0.001$ (t = 4.841).

4. **Vomiting:** The mean score before treatment was 1.5, which was reduced to 0.25 after treatment. The percentage of relief was 83.33 which is significant at $p<0.05$ (t=5.00).

5. **Breast tenderness:** The mean score before treatment was 1.88 which was reduced to 0.57. Relief in percentage was 69.98, which is significant at $p<0.001$ (t=6.971).

6. **Fever:** Mean score before treatment was 1.2 which was reduced to 0. Relief was 100% which is significant at $p<0.01$ (t=6.00).

7. **Headache:** Mean score before treatment was 1.25, which was reduced to 0. Relief in percentage was 100, which is statistically significant at $p<0.01$ (t=5.000).

8. **Giddiness:** The mean score before treatment was1.36 which was reduced to 0.18. Relief was 86.66% which is statistically significant at $p<0.001$ (t=6.5).

9. **Diarrhoea:** The mean score was 1.462 before treatment which was reduced to 0.154 after treatment. Relief in percentage was 89.46, which is statistically significant at $p<0.001$ (t=7.5).

10. **Constipation:** Mean score was 1.75 before treatment which was reduced to 0.5 after treatment. Relief in percentage was 71.43 which is statistically insignificant at $p>0.05$ (t=2.6111) (n=4).

11. **Anorexia:** Mean score was 2.0 before treatment, which was reduced to 0.231. Relief in percentage was 88.45, which is significant at $p<0.001$ (t=8.402).

12. **Nervousness:** Mean score was 1.89 before treatment, which was reduced to 0.33 after treatment. Relief in percentage was 82.54 which is significant at $p<0.01$ (t=4.4).

13. **Irritability:** Mean score was 1.78 before treatment which was reduced to 0.5 after treatment. Relief in percentage was 71.91, which is statistically significant at $p<0.001$ (t=8.086).

14. **Weakness, Lethargy, sadness, thirst** were present in very less number of patients (n<3), so, statistical analysis could not be done.

15. **Sleep:** Mean score was 2 before treatment, which was reduced to 0. Relief was 100% which is significant at $p<0.05$ (t=3.464).

16. **Bloating:** Mean score before treatment 1.5 which was reduced to 0. Relief was 100% which is significant at $p<0.05$ (t= 5.196).

Overall Results: 26 patients were markedly improved, 15 moderately improved and 9 patients were improved.

CONCLUSION

From the above discussion, we can say that therapy (*Chaturbeeja Churna* and *Yogic* with practices) had statistically highly significant results and was very effective. In management of spasmodic dysmenorrhea.

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