Clinical efficacy of Dashamoola Taila Matra Vasti on management of primary dysmenorrhoea

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Abstract

Primary dysmenorrhoea is the most common gynaecological complaint among young women. Prevalence of dysmenorrhoea is estimated as 45% to 85% among reproductive aged women. It is a condition which has no any underline pelvic pathology or anatomical defect. In modern sciences, nonsteroidal anti inflamatory drugs and oral contraceptive pills are used as a symptomatic treatment for this condition but they are having many side effects and they are not curative. Hence study was carried out to find out a reliable and longlasting Ayurvedic management for the condition and to find out the efficacy of Dashamoola Taila Matra Vasti on primary dysmenorrhoea. The dose of Dashamoola Taila Matra Vasti was 60 ml and duration was 7 days for two consecutive cycles. Results were assessed on the basis of specially prepared grading system for pain. The results obtained were highly significant. Total effect of therapy was, 38.89% got complete remission while marked improvement was there in 50%. In the follow up period no patient complaint recurrence of symptoms. The study suggests that Dashamoola Taila Matra Vasti can be established as a reliable longlasting treatment for relieving primary dysmenorrhoea.

Introduction

Dysmenorrhoea is a medical condition characterized by severe uterine pain during menstruation. While many individuals experience minor pain during menstruation, dysmenorrhoea is diagnosed when the pain is so severe as to limit normal activities, or requires medication [1]. It has been defined as painful menstruation of sufficient magnitude so as to incapacitate day to day activity [2]. Primary dysmenorrhoea is the most common gynaecological complaint among young reproductive age women. By 40 high quality studies, prevalence of dysmenorrhoea is estimated as 45% to 85% among reproductive aged women [3]. It is a condition which has no any underline pelvic pathology or anatomical defect [4]. There is several pathophysiologies and risk factors have been identified as a etiology of this condition.

Treatment in practice for the condition depends upon analgesics and oral contraceptive drugs which give several unwanted effects as well as short term. Several Ayurvedic oral therapies give significance results on management of primary dysmenorrhoea without adverse effect, but its long lasting effect is debatable. Though Uttara Vasti has proven long lasting effect on this condition it cannot be implemented to unmarried girls who are the most common sufferers of Primary dysmenorrhoea [4].

Pain is the main feature of primary dysmenorrhoea, so it has strong relation with Vata Dosha. Matra Vasti was taken as a treatment since Vasti has been mentioned as one of the best therapeutic procedure for alleviation of vitiated Vata [5]. The present study was carried out as a very preliminary step to find out a reliable and longlasting Ayurvedic management for the condition and to find out the efficacy of Dashamoola Taila Matra Vasti on primary dysmenorrhoea.

Materials and Methods

Selection of drug

Kashtartava especially manifesting as primary dysmenorrhoea is a Vata predominant condition and selected drugs are also good Vatashamaka drugs as mentioned in classics. Dashamoola Taila has been mentioned for the treatment of Udavarta Yonivyapad [6], which is one of the main disease conditions coming under primary dysmenorrhoea in Ayurveda.

Contents of Dashamoola [7, 8] are *Aegle marmelos* Corr., *Premna integrifolia* L., *Oroxylum indicum* Vent., *Steriospermum suaveolens* DC, *Gmelina arborea* Roxb., *Desmodium gangeticum* DC., *Uraria picta* Desv.,

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Solanum indicum L., *Solanum surattense* Brum and F., *Tribulus terrestris* L.

Ten ingredients of dried Dashamoola are collected from the pharmacy, identified with the help of organoleptic and powder microscopic studies. Equal amount of Dashamoola made in to Yavakuta form is dipped in water for overnight and next day Kwata is prepared. This Kwata along with Kalka of Dashamoola is added in Tila Taila (sesame oil) and oil is prepared as per standard protocol [9].

Selection of patients

Patients attending the O.P.D. and I.P.D. of Department of Striroga and Prasutitantra, Institute of Postgraduate Training and Research in Ayurveda, Gujarat Ayurved University, Jamnagar complaining of pain in menstruation and fulfilling the criteria of inclusion were selected for the present study. An elaborative case taking proforma was specially designed for the purpose of incorporating all aspects of the disease on Ayurvedic and modern parlance. Patients of age group between 15-25 years, coming with chief complaint of painful menses from more than 3 cycles with scanty or average amount of menses. Patients below 15 years and above 25 years, patients with chronic illness, patients with intrauterine contraceptive devices, patients with menorrhagia or any uterine pathology – fibroid, adenomyosis, endometriosis etc. were excluded from the study.

Investigations

Routine haematological and urinary examinations were done before and after teatment. Sonography for uterine and adnexal study was done for exclude pathological cases.

Method of administration

Daily 60 ml of Dashamoola Taila was administered in morning hours through rectal (Matra Vasti) for 07 days for two consecutive menstrual cycles starting from mid cycle. After stopping the administration of the drugs under trial, patients were advised to report weekly for follow up study, which was carried out for 2 months.

Method of administration of Matra Vasti

The patient was advised to take light meal, not more than 3/4th of the usual quantity. Before administration of Vasti, Abhyanga (application of oil) with Tila Taila was done on the region of lower back and lower abdomen. Thereafter, Nadi Sweda was performed.

After this pre preparatory measures (Purvakarma), the patient was advised to take left lateral position with left lower extremity straight and right lower extremity flexed on knee and hip joint. The patient was asked to keep her left hand below the head. 60 ml of lukewarm Taila was taken in enema syringe. Rubber catheter oleated with Taila was attached to enema syringe. After removing the air from enema syringe, rubber catheter was administered into the anus of the patient up to the length of 4 inches. The patient was asked to take deep breath while introducing the catheter and drug.

Criteria of assessment

The effect of the therapy was assessed considering to the overall improvement in signs and symptoms. For this purpose, following categories were maintained.

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 take analgesic but poor effect.

Duration of pain

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

Criteria for the assessment of overall effect of the therapies:

- **Complete remission**: 76%-100% relief in the signs and symptoms were considered as complete remission.
- **Marked improvement**: 51%-75% relief in the signs and symptoms were considered as markedly improvement.
- **Improved**: 26%-50 % relief in the signs and symptoms.
- **Unchanged**: Below 25% relief in the signs and symptoms were considered as unchanged.

Investigations : Laboratory investigations – Hb%, WBC/ DC, ESR, PCV, were carried out before and after treatment to rule out any other pathological conditions as well as to record any specific change by the treatment.

Results

Total 20 patients were registered for the study among them 18 patients had completed the treatment and 02 left against medical advice. So observations and results drown from 18 completed patients.

Table 1: Risk factors

Risk factor	*No. of patients (n=18)*	*%*
Early age (<20years)	14	77.77%
Early menarche (12-13years)	11	61.11%
Positive family history	12	66.66%
Lose weight (BMI <20)	6	33.33%
Null parity	15	83.33%
Smoking	0	0%

Table 2: Features related to primary dysmenorrhoea

Features	*No. of patients*	*%*
Chronicity (4-6 years)	9	50%
Onset of pain (1 day before)	11	54.28%
Aggravation of pain (1st day)	17	94.28%
Severity of pain (grade 2)	12	65.71%
Site of pain (Hypogastrium)	18	100%
Duration of pain (12-24hrs.)	10	60%

Table 3: Effect of therapy (% of relief)

Associated symptoms	*% of relief*
Severity of Pain	75%
Duration of Pain	68.33%

Table 4: Effect of therapy (paired t test)

	No of pt.	*Mean*		*%of relief*	*S.D.*	*S.E.*	*t*	*P*
		B.T.	*A.T.*					
Severity of pain	18	2.23	0.67	70%	0.922	0.22	7.159	<0.001
Duration of pain	18	2.00	0.83	63.89%	0.826	0.19	6.559	<0.001

Table 5: Total effect of therapy

Effect of therapy	*No. of pts.*	*%*
Complete remission (76%-100% relief)	07	38.89%
Marked improvement (51%-75% relief)	02	11.11%
Improved (26%-50% relief)	09	50%
Unchanged (25% -0% relief)	00	0%

Discussion

In this study maximum numbers of patients were suffering form dysmenorrhoea since 4-6 years (Table 2) among them grade 2 type of severity was found in 65.71%. The 48.71% of patients were on analgesics/antispasmodics (Table 3). The data are suggestive of the chronicity of the problem and also supports the reality that even people suffering from such common problem visit Ayurvedic clinic quite late and after taking several other trials.

Majority (54.28%) of them had onset of pain one day before to the onset of menstruation (Table 3), pain aggravation on first day on menstruation was found in 94.28% and pain persisted for 12 to 24 hours in 60% (Table 3). These observations show typical characters of primary dysmenorrhoea [3]. It is a known fact that two days prior to onset of menstruation, large quantity of progesterone and estrogen secretes from corpus luteum. This high level of progesterone induce increases the tone in the isthmus and upper part of the cervix [4]. An exaggeration of this could therefore be the basis of the non-coordinating action of the uterus. Again high level of ovarian hormones stop FSH (Folicular Stimulating Hormone) and LH (Lutinising Hormone) secretion causes sudden stoppage in secretion of progesterone and oestrogen which results to menstruation. Withdrawal of progesterone preceding menstruation probably causes break down of lysosomes and the synthesis of various prostaglandins [10]. These prostaglandins are responsible for pain in menstruation by myometrial contraction, vasoconstriction and increase sensitivity of nerve endings for pain [11]. It is the course of strong pain on starting of menstruation and withdraws after 24 hours as prostaglandins are of short lifespan [12].

On the basis of site all the patients showed pain in hypogastrium (Table 3), while in 71.43% complain pain radiated towards inner and front aspect of the thighs. It could be because sympathetic nerves, arising from segments T5 and T6 in the case of motor nerves and from segment T10 to L1 in the case of sensory nerves, pass down from the celiac plexus through the intermesentric plexus, lying retroperitoneally in the front of the abdominal aorta [13].

Discussing the risk factors of disease, it is similar to those mentioned for dysmenorrhoea. Early onset of menarche and early age; below 22 years, which are mentioned as risk factors for dysmenorrhoea, were found in 61.11% and 77.77% (Table 2) patients respectively.

The theory postulated behind this finding is that in this age, pituitary and other endocrine gland do not attain their maturity till the age of 20 [14]. It can lead to hormonal imbalance and thus, dysmenorrhoea.

Concept of 'Bija' given as the Nidana of Yonivyapada in classics was supported by the data obtained, as positive family history was found in 66.66% (Table 2) of patients. It suggested that there is a definite relation of a person's genetic trait and Prakriti with the condition of dysmenorrhoea. Nulliparity, which is considered as the risk factor for primary dysmenorrhoea was found in 83.33% (Table 2) of patients. It is believed that vaginal delivery removes the stenosis or pin hole of cervical canal and internal os [1] and thus, facilitates the flow of menstrual blood. It reduces that pain during menstruation, because the flow of blood through the cervix becomes easier. Lose weight also a risk factor given as per modern science. Present study it is noticed 33.33% (Table 2) patients are below 20 in B.M.I. (Body Mass Index). It supports the modern findings regarding in this issue [15].

Effect of therapy on primary dysmenorrhoea shows 75% relief on severity of pain and 68.33% relief in duration and (Table 4) according to 't' value highly significant results ($P < 0.001$) on both the components (Table 5) evidence that treatment is effective on both severity as well as duration of menstrual pain. When considering total effect of therepy 50% of patients got complete o marked remission. Not a single show negative respond to the therapy (Table 6).

In follow up period, most of the patients show prolong and lasting effect on primary dysmenorrhoea. The prolongation in recurrence of symptom can be due to the strong anti-inflammatory and analgesic property of Dashamoola. It is a proven drug, effective on primary neurological disorder and improves nerve conduction velocity [16]. This effect of Dashamoola on nervous system can be the responsible factor behind its lasting effect.

Conclusion

Dashamoola Taila Matra Vasti is effective to relieve primary dysmenorrhoea. Matra Vasti seems to be better than oral analgesics and oral contraceptive pills used in dysmenorrhoea, because it is found efficacious in whole the feature complex related to dysmenorrhoea. Dashamoola Taila Matra Vasti helps to protect from the recurrence of dysmenorrhoea. With some further researches, Dashamoola Taila Matra Vasti can be established as line of treatment for Primary dysmenorrhoea.

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