Clinical Research

Role of Uttar Vasti with Trivrit and Lasuna oil in the management of primary dysmenorrhea

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Abstract

Dysmenorrhea is one of the most common clinical entities encountered in regular practice by the gynecologists. Dysmenorrhea means painful menstruation. Fifty percent of the women suffer from dysmenorrhea. Primary dysmenorrhea is correlated with Udavartini yonivyapad in Ayurveda. No successful advances have been made in the line of management till today by western medicine. Therefore, a complete, comprehensive and holistic approach toward its understanding and treatment is the need of the age. In this series, Uttar Vasti, a unique panchakarma procedure, is studied for its role in yonivyapads. A research study was conducted to evaluate the efficacy of Uttar Vasti with Trivrit and Lasuna oil in Primary dysmenorrhea. Thirty-six diagnosed cases of Udavartini Yonivyapad, viz., primary (spasmodic) dysmenorrhea, were selected and randomly allocated into two groups. The effect of Uttar Vasti was compared with the commonly used non steroidal anti inflammatory drug (control group). Uttar Vasti with Operculina turpethum (Trivrit) and Allium sativum (Lasuna) oil has shown encouraging results in Udavartini yonivyapad. Statistically significant relief was seen in the intensity of pain and the successive cycles were less painful in the treated group as compared to control group. The mode of action can be attributed to anti-inflammatory (vatahara), vasodilatory (ushna virya) antispasmodic and laxative (anulomana) properties of the trial drugs. The present study shows Uttar Vasti as a safe and easy technique to treat dysmenorrhea like conditions without any side effects.

Key words: Lasuna, primary dysmenorrhea, Trivrit, Udavartini yonivyapad, Uttar Vasti.

Introduction

Dysmenorrhea means painful menstruation which can be correlated with Udavartini of yonivyapad Charaka or Udavarta of Susruta. It occurs in 50% of post-pubescent females. It is of two types: (i) primary dysmenorrhea refers to menstrual pain without pelvic pathology and (ii) secondary dysmenorrhea is defined as painful menses associated with an underlying pathology. Clinical features of primary dysmenorrhea are: (i) onset shortly after menarche; (ii) usual duration of 48–72 hours, often starts before or just after the menstrual flow; (iii) cramping or labor like pain; and (iv) often unremarkable pelvic examination findings.¹ Udavarta is explained in Ayurveda as a Nanatmaja Vata vyadhi by Charaka where there is abnormal movement of vayu in pakwashaya (Cha.Su. 20/11). Udavartini yonivyapad is characterized by painful menstruation (Su. Utt. 38/9).² According to Charaka, Rajas is pushed in upward direction by the aggravated Apana vayu due to obstruction in its normal flow (anuloma gati) in pakwashaya, the chief site of Apana vayu being the pakwashaya (colon and pelvic organs)³ (Cha.Chi.30/25-26).

Though modern medicine has made an unbelievable progress in understanding “dysmenorrhea”, no new progress has been made in the line of management. Moreover, the principal drugs, i.e., NSAIDS, used have many side effects in sensitive individuals, which restrict their use. An attempt has been made here to treat this condition with Ayurvedic drugs mentioned in Ayurvedic classics.

Aims and objectives

The aims and objectives of this study were
1. to study the concept of Udavartini yonivyapad in terms of modern parameters and
2. to evaluate the efficacy of Uttar Vasti with Trivrit and Lasuna oil in “primary dysmenorrhea”.

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Materials and Methods

Study population
A total of 36 married young adults with or without issue, diagnosed cases of primary dysmenorrhea, were enrolled from the Department of Prasuti Tantra OPD/IPD of S.S. Hospital, after obtaining informed consent from them. Of them, only 31 cases completed the clinical trial.

Study design
This was a randomized, controlled clinical trial conducted in Department of Prasuti Tantra, after obtaining permission from the Institutional Ethical Review Committee of IMS, BHU, Varanasi. All the 36 diagnosed cases of primary dysmenorrhea were randomly allocated into two groups. The selected patients had undergone complete general and radiological examinations (USG of abdomen with special attention to pelvic organs) to rule out any gross abnormalities and to confirm the diagnosis.

Grouping
1. Control group (n = 8): Tablet Meftal-Spas twice a day during periods, for 5 days; the sample was less as the Ethical Committee did not approve of equal or large sampling.
2. Treated group (n = 28): Uttar Vasti was administered for 3 days from the 9th day of menstruation for three menstrual cycles.

Drop outs
Two cases in control group did not turn up for third follow-up, while three cases in Uttar Vasti group dropped out in the third follow-up as they refused Vastī procedure.

Inclusion criteria
1. Married, nulli or multiparous women, with complaint of painful menstruation, but without pelvic pathology
2. Women in the age group 20–35 years

Exclusion criteria
1. Unmarried women
2. Women suffering from systemic diseases, with organic lesion (benign or malignant growth of reproductive tract), any degree of prolapsed and hypoplastic uterus, polycystic ovarian disease (PCOD), any congenital abnormality of genital tract

Selection of trial drug
"Trivrit Sukhavirechananam Sreshtam" (Cha.S.Su. 25/40) Charaka had explained the use of Trivrit in the treatment of Udavartini yoniyapad, along with different other drugs (C.Chi. 30/110-111). It is a laxative and removes the obstruction and normalizes Apana Vata in pakwashaya. Lasuna is a vatahara drug with potential anti-inflammatory properties. Uttar Vasti is the unique panchakarma procedure specially indicated for Yoniyapad (S. Utt.38/21).

Follow-up
Follow-up was done once in a month for 3 months. Not any specific medication was advised during the follow-ups as pain was present only during menstruation.

Assessment criteria
1. Symptomatic relief in pain (lower abdomen, thigh, back)
2. Decrease in the intensity of pain
3. Decrease in the duration of pain
4. Relief in associated symptoms

Response was graded as (i) improved: relief was found in at least three of the above criteria; (ii) unchanged: if no change was observed.

Procedural of Uttar Vasti

Instruments required
Sim’s posterior vaginal wall speculum, anterior vaginal wall retractor, vulsellum, uterine sound, sponge holding forceps, disposable syringe 5 ml, rubber catheter No. 3 were required.

Purva karma
Patients were called on 9th day of menstruation, with a light diet in the morning hours. Before giving uttarbasti, blood pressure (BP), temperature and pulse were carefully recorded and noted. Abhyanga was done with Bala oil for 30 minutes in lower abdomen, loin, groin, thigh, buttocks and back, followed by hot water fomentation for 10 minutes.

Pradhana karma (procedure of uttarrvasti)
The patient was placed in lithotomy position. Genital parts were cleaned with Savlon solution. Per vaginal examination was done to find out the size, shape and position of the uterus. Sim’s speculum with anterior vaginal wall retractor was applied, cervix visualized and properly held with vulsellum and uterine sound passed. Then, with the help of (5 ml) syringe and No. 3 rubber catheter, 5 ml of autoclaved trial drug was introduced in the uterus slowly over 5–10 minutes.

Pashchat karma
The patient was observed for 1–2 hours for any complaint of pain, bleeding, or discomfort, and also for changes in the pulse, BP, temperature, etc.

Statistical analysis
Students “t” test was applied to assess the significance of the assessment criteria while repeated measure analysis of variance (ANOVA) was used to assess the significance in different follow-ups.

Results and Observations
The results are shown in Tables 1–6.

Discussion
Primary dysmenorrhea in one of the common complaints seen in 50% of post-pubescent females. Current evidence suggests that the pathogenesis of primary dysmenorrhea is due to PGF2 alpha, a potent myometrial stimulant and vasoconstrictor in the secretory endometrium(9). The Udavartini yoniyapad had been described by various authors as the following: Udavartini by Charaka, udavarta by Sushruta, Madhav and Vagbhatta. According to Charaka, due to vegavrodha (natural urges), the Apana Vata is aggravated and moves in reverse direction and fills the entire Yoni. This Apana vayu pushes the Raja upward and causes pain and discomfort in menstruation. The lady feels comfortable after discharging the menstrual blood. Vata Dosha is the chief culprit and is vitilated due to faulty dietary
Table 1: Scoring of intensity of pain and duration of pain during menstrual period

| Variable      | Mild (+)          | Moderate (+++)                              | Severe (+++)                              |
|---------------|-------------------|---------------------------------------------|-------------------------------------------|
| Intensity     | No need to take   | When pain interferes in the physical activity of the individual, there is need for rest or analgesics some times | Always in need of rest and analgesics     |
| of pain       | any drug          | Pain persists for 12–24 hours with menses    | Pain persists for >24 hours with menses   |
| Duration      | Pain occurs only  |                                             |                                           |
|               | for less than 8   |                                             |                                           |
|               | hours with        |                                             |                                           |
|               | menses            |                                             |                                           |

Table 2: Incidence of age, gravidity and parity

| Variable      | Mean ±SD          |
|---------------|-------------------|
| Age           | 28.61 ± 5.00      |
| Gravidity     | 1.58 ± 2.13       |
| Parity        | 1.19 ± 1.47       |

Table 3: Incidence of occupation and socioeconomic status in total cases

| Occupation    | No. of cases (35) |
|---------------|-------------------|
| Housewife     | 30                |
| Service       | 5                 |
| Socioeconomic status |     |
| Upper         | 3                 |
| Middle        | 19                |
| Lower         | 13                |

Table 4: Findings of per vaginum examination in total cases

| Cervix (size) | Normal | 28 |
|---------------|--------|----|
|               | Hypertrophied | 4  |
|               | Subnormal | 3  |
| Cervix (consistency) |     |
| Firm          | 29     |
| Hard          | 1      |
| Soft          | 5      |
| Uterus        |        |
| Direction     | Antverted | 10 |
|               | Retroverted | 25 |
| Size          | Normal | 18 |
|               | Parous | 17 |
| Mobility      | Mobile | 31 |
|               | Restricted | 4  |
| Fornices      | Nonpalpable | 34 |
|               | Palpable | 1  |

Vata. Moreover, Rasona has also emmenogogue property by which it normalizes the menstrual blood flow. Trivrit is a laxative and has vatamulonaka and sukha rechaka properties. Tila taila is best media among vatahara oils due to its Guru, Snigdha and yogavahi properties. It is considered as the best agent to pacify vitiated vata. Hence, uttarbasti with Rasona and Trivrit oil was selected for this study.

The mean age of the registered patients was 28.61 years. Nulligravida and nulliparous patients formed the majority of the total cases registered. These findings show that dysmenorrhea is more common in early reproductive age of nulliparous women and pregnancy relieves the complaint. In India, marriage brings upon a lot of stress to a woman. After marriage, a woman frequently encounters many challenges and responsibilities and there is a sudden change in her lifestyle. All these produce fear and stress. Stress leads to anxiety and depression, which may manifest as pain. Multiparous women are less likely to suffer from dysmenorrhea because pregnancy and childbirth improves the vascularity and growth of uterine muscles and causes less sensitization of nerve endings that carry pain sensation in uterine and cervix musculature after vaginal delivery.

Most of the women suffering from painful menstruation were housewives (90.32%) and hailed from middle class families (54.83%). Housewives are always busy in household work and they always have anxiety and tension of over work. This anxiety and tension results in hormonal imbalance in women, which is the one of the causative factors of painful menstruation, as progesterone stimulates myometrial contractions of the smooth muscles of the cervix and causes narrowing of the cervical canal. Progesterone further stimulates the production of prostaglandin F2 alpha which in turn accentuates pain.

Majority of the cases had normal size cervix with firm consistency, and normal sized, retroverted, mobile uterus with nonpalpable fornices. Initially, pain in the lower abdomen was found in 19 women, which started declining from the first follow-up, and 18 patients were relieved from the pain during the fourth follow-up. Initially, pain in the back was found in 10 women, which started declining from the first follow-up and six patients were relieved from the pain during fourth follow-up. Pain in thighs was seen only in two patients and the patient was relieved of it during second follow-up. On statistical comparison between initial stage and different follow-ups, no significant outcome was seen from first follow-up (P > 0.05) in intensity and duration of pain but comparison between initial stage and different follow-ups showed highly significant results in the second follow-up (P < 0.001) with regard to all the symptoms, except diarrhea, backache and pain in vagina. The control group felt symptomatic relief from pain for a few hours but needed frequent dosing (3 tabs/day) in all the patients with many side effects like burning sensation in stomach, nausea and vomiting.
The above improvement in the Uttar Vasti group is due to the anti-inflammatory action of Lasuna which inhibits the synthesis of prostaglandins, relieving myometrial contractions and causing vasodilation leading to smooth flow of menstrual blood. Rasona also has emmenogogue property by which the flow of menstrual blood is made smooth and without any discomfort. Trivrit is a laxative and has vatanulomaka and sukha rechaka properties. According to Ayurveda, the action of the trial drugs is due to vatahara guna of Lasuna (Allium sativum) and Mridu rechana guna of Trivrit (Ipomea turpethum).

On the basis of above facts, it may be concluded that the drugs Rasona and Trivrit are effective in spasmodic dysmenorrhea without causing any side effects. Uttar Vasti is a simple and specialized technique and has significantly improved the outcome of Udavartini yonivyapad.

**Conclusion**

Primary dysmenorrhea (spasmodic type) can be correlated with Udavartini yonivyapad in Ayurveda. A clinical trial with Trivrit and Lasuna Oil as Uttarvasti has shown encouraging results in Udavartini yonivyapad. Trivrit and Lasuna are ushna virya drugs. Trivrit is a mild purgative and carminative, while Lasuna is a potent anti-inflammatory and analgesic agent. Tila taila has Snigdha and pichchila properties in contrary to Vata, and this oil imbibed the gunas of both the drugs, showing maximum beneficial effects of Uttarvasti.

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**Table 5: Efficacy of Uttar Vasti in the site of pain in different follow-ups (FU)***

| Site of pain   | Comparison between different follow-ups (paired “t” test). |
|---------------|----------------------------------------------------------|
|               | Initial vs. FU-I | Initial vs. FU-II | Initial vs. FU-III | Initial vs. FU-IV |
| Lower abdomen | 3.26             | 11.79             | 19.76             | 34.20             |
|               | P > 0.05 NS      | P < 0.001 HS      | P < 0.001 HS      | P < 0.001 HS      |
| Back          | 3.53             | 6.67              | 10.77             | 8.57              |
|               | P > 0.05 NS      | P < 0.01 HS       | P < 0.01 HS       | P < 0.01 HS       |

NS, nonsignificant; HS, highly significant.

**Table 6: Comparison between different follow-ups in the intensity of pain***

| Statistical value | Comparison between different follow-ups |
|-------------------|----------------------------------------|
|                   | Initial vs. I FU | Initial vs. II FU | Initial vs. III FU | Initial vs. IV FU |
| Mean              | 17.09          | 30.32             | 49.68             | 68.06             |
| ±SD               | 8.64           | 10.48             | 9.83              | 10.78             |
| Chi-square test   | 14.88          | 29.12             | 46.25             | 62.00             |
| T                 | 11.02          | 16.11             | 28.15             | 35.17             |
| P                 | <0.001 HS      | <0.001 HS         | <0.001 HS         | <0.001 HS         |

NS, nonsignificant; HS, highly significant.

The above improvement in the Uttar Vasti group is due to the anti-inflammatory action of Lasuna which inhibits the synthesis of prostaglandins, relieving myometrial contractions and causing vasodilation leading to smooth flow of menstrual blood. Rasona also has emmenogogue property by which the flow of menstrual blood is made smooth and without any discomfort. Trivrit is a laxative and has vatanulomaka and sukha rechaka properties. According to Ayurveda, the action of the trial drugs is due to vatahara guna of Lasuna (Allium sativum) and Mridu rechana guna of Trivrit (Ipomea turpethum).

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