

EFFECT OF ANUVAASANA VASTI (MATRAVASTI) AND YONI PICCHU ON PHENOMENON OF LABOR

Anubha Chandla¹ Seema Shukla² Eena Sharma³

¹Assistant Professor (Department of Prasuti Tantra Avum Stree Rog), S.K.S.S.Ayurvedic College, Sarabha Ludhiana, Punjab, India

²Senior Lecturer, Rajiv Gandhi Government Postgraduate Ayurvedic College, Paprola (Kangra,) Himachal Pradesh, India

³H.O.D (Department of Prasuti Tantra Avum Stree Rog) Rajiv Gandhi Government Postgraduate Ayurvedic College, Paprola (Kangra,) Himachal Pradesh, India

ABSTRACT

The present clinical study was conducted with the aim to evaluate the effect of *Anuvaasana vasti (Matravasti)* and *Yoni Picchu* on phenomenon of labor (in terms of Bishop Score, duration of stages, reduction in rate of episiotomy, operative and forceps vaginal delivery). A total of 60 patients within age group of 19-35 years were registered between 32-35 weeks of pregnancy with preference to primigravida from *Prasuti Stree Rog* OPD. Patients were randomly divided into two different research groups. 30 patients of Group-I were given *Matra Vasti with madhur varga aushadh siddh taila named as Balyam taila II* once in a week and *Yoni Picchu* daily till delivery. 30 Patients of Group-II were given *Matra vasti* with similar oil fortnightly and *Yoni Picchu* daily till delivery. Chief components of *Balyam taila II* were *tila taila, eranda mool, ashwagandha, guduchi, and sariva mool*. Study revealed highly significant results in terms of favorable bishop score, reduction in duration of stages of labor specifically 1st stage and reduction in operative vaginal delivery. On the whole given therapy resulted in *nirupadrava* and *sukhprasava*.

Keywords: *Anuvaasana vasti (matra vasti), yoni picchu, Balyam taila II, labor phenomenon, Bishop's score*

INTRODUCTION

“Birth is a natural process, not a medical procedure”

Pregnancy is a state where a woman not only requires a particular dietary regimen but also measures to prepare herself psychologically for this natural process. Birth is viewed as a natural common occurrence that requires time, patience, strength, and endurance – all well within a woman's capabilities. Passage through the birth canal is

the most hazardous journey made by an individual in his or her life. The risk is increased when labor is prolonged or is induced or augmented by any method.

Medications (sedatives, analgesics, anesthesia) used to ease the process of labor must be nontoxic and safe for both mother and fetus. But no such agent is available at present

that fulfills all these conditions¹. On the other hand natural childbirth without medication is beneficial both for mother as well as baby and as both are more active during the process it brings early bonding between the two. Acharya Charak has advised use of *Anuvaasana vasti* with oil prepared with the drugs of *madhur varga* and *yonipicchu* of same oil for lubrication of *garbhashthana* and *garbhamarga* in the ninth month of pregnancy². Further describing the benefits of *maasanumaasikpathya* Acharya Charaka says that by this regime *garbhadharinikatikukshipritha* of woman become soft, *vayu* moves into right path and woman delivers easily at proper time without complications³. So the present study was conducted to evaluate the efficacy of *Anuvaasana Vasti (Matravasti)* and *Yoni Picchu* of *madhur varga aushadh siddha taila* named (*Balyam taila II*) on phenomenon of labor.

MATERIALS AND METHODS

ETHICS: The present study was approved by Institutional Ethical Committee, RGGPGA Hospital, Paprola, Himachal Pradesh.

STUDY DESIGN: The trial was designed to be open. 60 patients fulfilling the inclusion criteria were randomly selected from the OPD and IPD of RGGPGAC and Hospital, Paprola, after taking written and informed consent and making them aware of merits/demerits, follow up and duration of trial.

Inclusion criteria:

- Pregnant women willing for the trial between 32-35 week gestational age with preference to primigravida, having vertex presentation, adequate pelvis and borderline pelvis were randomly selected
- Age group 19-35 years

- Patients having prior caesarean section due to cervical dystocia, failure of induction or due to fetal distress or breech presentation were also registered

Exclusion criteria:

- Patients with age <19 years and >35 years
- Patients having contracted pelvis, malpresentation
- Systemic diseases like diabetes mellitus, tuberculosis, jaundice, eclampsia, preeclampsia, heart disease, epilepsy, polyhydramnios etc. were excluded from the study

LABORATORY INVESTIGATIONS

- Routine hematological examination: Blood group with Rh factor, Hb%, TLC, DLC, ESR, BT, CT, FBS, HIV, VDRL, HBsAg
- Urine examination- Routine and microscopic
- Ultrasonography

TREATMENT SCHEDULE

Patients were randomly divided into two different research groups:

Trial Group I: 30 Patients were given *Matra Vasti (Balyam taila II)* once in a week and *Yoni Picchu* daily till delivery.

Trial group II: 30 Patients were given *Matra vasti* with similar oil fortnightly and *Yoni Picchu* daily till delivery.

Matra vasti is a type of *Anuvasana Vasti (sneha vasti)*. It is the *minimum quantity of sneha vasti (1½ Pala)*, devoid of any ill effects to the patient⁴, so for the present study *Matravasti* was selected.

TRIAL DRUG (Balyam Taila II)

Trial formulation named *Balyam Taila II* was prepared in *Charaka Pharmacy* of RGGPGAC, Paprola. First of all *murchhana of Tila Taila* was done as mentioned in *Bhaishajya Ratnavali*⁵. Drugs used for *murchhana* were *Manjishtha, Haridra, Lodhra twak, Vatankura, Kewata, Nagarmotha,*

Nalika, Amalaki, Bibhitaka, Haritaki. Then Balyam taila-II was prepared with Taila Paaka Vidhi by adding four drugs of madhur

skandh⁶ i.e. Eranda moola, Ashwagandha moola, Sariva moola and Guduchi (each one part) and murchhit tila taila 16 parts.

Pharmacodynamic properties of main ingredients of Balyam Taila-II⁷ (Table 1)

Sr. no.	Dravya	Part used	Rasa	Guna	Veerya	Karma
1	Tila taila	Seed oil	Madhuraanuras a-kashayatikta	Guru snigdha	Ushna	Vatashamakbalyayonishodhanavednasthapaka
2	Eranda	Root	Madhuraanuras a –katukashaya	Snigdhasukshmatikshna	Ushna	Kaphavatshamakabalya, vrishya, shothahara, vednasthoaka
3	Ashwagandha	Root	Tiktakatumadhura	Laghusnigdha	Ushna	Kaphavatashamakashothaharaanulomanabalya, vednasthapana
4	Sariva	Root	Tiktamadhura	Guru snigdha	Sheeta	Tridoshashamakaanulomanashothahara Garbhashthapana
5.	Guduchi	Stem	Tiktakashaya	Guru snigdha	Ushna	Tridoshashamakaanulomanavednasthapakabalya

So combined pharmacodynamic properties of these drugs are:

- Rasa – madhura, tikta
- Guna- snigdha ,guru
- Veerya- ushna(80%), sheeta(20%)
- Karma- kaphavatashamaka, tridoshashamaka, anulomana, balya, vednasthpaka, brimhaneeya

CHEMICAL COMPOSITION OF INGREDIENTS OF Balyam Taila II⁸

Table No. 2

Sr. No	Dravya	Chemical Composition
1	Tila Taila	Fatty acids, oleic and linoleic acid, stearin, palmitin, protein, minerals, beta-sitosterol, ethanolic acid, dietary fibres, sesamin, sesamolin
2	Eranda (mool)	Germanicol ester derivative, unidentified triterpene
3	Ashwagandha	Cuseohygrine, anahygrine, Anaferine
4	Guduchi	Tinosporin, beta-sitosterol, cordifol
5	Sariva	2 hydroxy-4 methoxybezaldehyde, triterpenes phytosterols, saponin, tannins, fatty acids, glycosides, a new pregnane ester diglycoside

Administration of Matravasti:

No *poorvakarmawas* advised as this is a *shaman chikitsa*. *Matra Vasti* in dose of 60ml was given after morning meal.

Pradhan karma: Patient was asked to lie down in left lateral position on the table with her left leg in out stretched posture, while the right leg flexed at the knee and the head was

slightly flexed. 60 ml syringe along with rubber catheter was used for the administration of *Matra Vasti*. The tip of the rubber catheter and anal orifice of patient were lubricated with oil, discarding first 2-3 drops, then keeping the syringe in slant position, the catheter was introduced steadily and slowly following the curve of vertebral column.

Thereafter syringe was held slightly above the anal orifice and administration of *Balyam taila II* was done slowly without shaking the hand within 30-40 seconds, leaving behind a little quantity of oil in the syringe. During the administration of *Vasti*, the patient was instructed to take deep breath. After the administration of *Vasti*, the syringe was removed and the patient was advised to breathe normally.

Paschat Karma: Immediately after the drug administration, the patient was asked to lie with hands and legs freely spread over the table for half an hour. Patient was asked not to do any strenuous work and to retain the *vasti* as long as possible.

Administration of yoni picchu: *Picchu* was prepared by wrapping sterilized gauze piece over cotton ball. It was soaked in *Balyam Taila II* and inserted into the vagina. Tail of *picchu* was kept outside vagina for its easy removal. Patient was instructed to insert the *picchu* herself daily at bed time after micturition and to retain it at least for 2 hrs and to remove it before micturition or in the morning if she didn't pass urine at night.

ASSESSMENT CRITERIA

Clinical results were assessed by observing whether the patients had *Sukha* and *Nirupadrava Prasava* or not. For that, following parameters were adopted:

- 1) Onset of labor
- 2) Bishop's score
- 3) Pain intensity (uterine contractions)
- 4) Rupture of membranes
- 5) Duration of labor
- 6) Mode of delivery
- 7) Post partum complications

On the basis of assessment criteria patients were given following grades:

- **Grade I:** Patients having Normal vaginal delivery without episiotomy, spontaneous onset of labor, favorable Bishop's score, moderate uterine contractions, FHR 120-160/min, partograph before alert line, duration of stages <standard mean duration, & no PPH
- **Grade II:** Patients having Normal vaginal delivery with episiotomy, spontaneous onset of labor, favorable Bishop's score, moderate uterine contractions, FHR 120-160/min, partograph before alert line, duration of stages <standard mean duration, & no PPH
- **Grade III:** Patients having vaginal forcep delivery, onset of labor either spontaneous, Bishop's score favorable, uterine contractions mild or moderate, FHR 120-160/min or >160/min, partograph between alert and action line, duration of stages equal to standard mean duration, without PPH
- **Grade IV:** Patients having delivery by LSCS, spontaneous onset of labor, Bishop's score favorable, uterine contractions mild or moderate, FHR 120-160/min, partograph on or after action line, duration of stages > standard mean duration, without PPH

STATISTICAL ANALYSIS

Analysis of assessment criteria was done statistically in form of mean score and its comparison with the standard values using unpaired t-test. Results were considered significant or insignificant depending upon the value of 'p'

OBSERVATIONS

1. Incidence of onset of labor in 60 patients of both groups:

Table No. 3

Sr.no.	Onset of labor	Number of patients		Percentage	
		Group-I	Group-II	Group-I	Group-II
1	Spontaneous	30	30	100	100
2	Induced	0	0	0	0

2. Incidence of Bishop's score in patients of both groups:

Table No.4

Sr.no.	Bshop's Score	Number of patients		Percentage	
		Group-I	Group-II	Group-I	Group-II
1	Favorable	30	30	100	100
2	Unfavorable	0	0	0	0

3. Comparison of intensity of pain during labor in both groups:

Table No.5

Sr. no.	Intensity of pain	Number of patients		Percentage	
		Group-I	Group-II	Group-I	Group-II
1	Mild	0	0	0	0
2	Moderate	30	29	100	96.66
3	Severe	0	1	0	3.33

4. Incidence of rupture of membranes

Table No. 6

Sr.no.	Rupture of membranes	Number of patients		Percentage	
		Group-I	Group -II	Group -I	Group -II
1	Pre labor	0	1	0	3.33
2	During labor	30	29	100	96.66

RESULTS

1. Comparison of Duration of stages of labor with standard mean duration⁹ in 30 patients of Group-I

Table No. 7

Sr. no.	Stages of labor	Standard mean duration	Group-I mean duration	S.D.	S.E.	T	p- value
1	Stage- I	13.3 (13 hr 18 min)	5.57 (5 hr 34 min)	1.64	0.29	25.78	<0.001
2	Stage- II	0.95 (57 min)	0.72 (43 min 11sec)	0.25	0.045	5.05	<0.001
3	Stage- III	0.25 (15 min)	0.079 (4 min 44 sec)	0.020	0.0037	46.76	<0.001

2. Comparison of Duration of stages of labor with standard mean duration in 29 patients of Group-II

Table No. 8

Sr. no.	Stages of labor	Standard mean duration	Group-II mean duration	S.D.	S.E.	T	p- value
1	Stage- I	13.3 (13 hr 18 min)	6.98 (6 hr 58 min)	1.95	0.36	17.46	<0.001
2	Stage- II	0.95 (57 min)	0.86 (51 min 36 sec)	0.42	0.078	1.15	>0.05
3	Stage- III	0.25 (15 min)	0.08 (4 min 47 sec)	0.03	0.006	28.3	<0.001

3. Comparative study of results in 30 patients of Group-I and 29 patients of Group-II

Table No. 9

Sr. no.	Stages of labor	S.D.	S.E.	T	p- value
1	Stage- I	1.418	0.468	3.029	<0.01
2	Stage- II	0.1438	0.089	1.60	>0.05
3	Stage- III	0.0028	0.0069	0.4077	>0.05

Comparative study of both the groups in 1st stage of labor shows significant effect statistically at the level of $p < 0.01$ i.e. therapy given in Group-I showed better results as far

as duration of 1st stage of labor was concerned. However results were insignificant as far as 2nd and 3rd stage of labor was concerned

4. Mode of delivery

Table No. 10

Sr. no.	Type of delivery	Number of patients		Percentage (%)	
		Group- I	Group- II	Group- I	Group- II
1	Normal	19	16	63.4	53.4
2	Episiotomy	11	12	36.6	40
3	Forcep	0	1	0	3.3
4	Caesarean section	0	1	0	3.3

Overall Result of therapy on patients of both the groups

Table No. 11

Sr. no.	Result	Group- I		Group- II	
		Number of patients	Percentage (%)	Number of patients	Percentage (%)
1	Grade- I	19	63.4	16	53.4
2	Grade- II	11	36.6	12	40
3	Grade- III	0	0	1	3.3
4	Grade- IV	0	0	1	3.3

DISCUSSION

Effect of vasti on prasava:

Vasti is considered as the paramaushadhi of vata, both for shodhana and shaman therapies. Vasti is indicated where Vata plays a pathological role. But, here in case of pregnant woman, Vasti is indicated

to prevent the pathogenicity of Vayu. Vyana Vayu, which is situated in Hridaya is said to cause Gati (motion), Aakshepa (contraction), Prasarana¹⁰ etc. When, proper time of Prasava comes, the Vyana Vayu stimulates the act of contraction and relaxation in the uterine muscles and due to its influence, Apana Vayu

becomes active to expel the *Garbha* outside the *Garbhashaya*. In the context of mechanism of normal labor, *Acharya Charaka* has used the term *Prasuti Maruta*¹¹. While going through the classification of *Vayu*, the word *Prasuti Maruta* does not appear anywhere. In *Atharvaveda* also, the word *Suti Maruta* is available which is said to be responsible for *Sukha Prasava*. The classics, while describing the functions of different types of *Vayu*, have clearly mentioned that the *Apana Vayu* is responsible for the *Nishkramana* of *Garbha*¹². Since, *Apana Vayu* controls specifically the process of expulsion of fetus; it can be referred to *Prasuti Maruta*. Hence it can be said that the function of *Apana Vayu* particularly of *Prasuti Maruta* is to expel the fetus out, while of *Vyana Vayu* is to stimulate the myometrium of the uterus. So, in a pregnant woman, the *Prakrita Apana* and *Vyana Vayus* are very much essential for normal delivery. At the time of parturition, if any of these are vitiated, it will lead to *Vilambita Prasava*, *Moodha Garbha* etc. which convert the *Prasava* from normal to abnormal. So, it is necessary to keep these *Vayus* in their *Prakritavastha*. For this *Acharyas* have advised to give *Vasti* in last trimester.

PROBABLE MODE OF ACTION OF DRUG

Ayurveda view:

Based upon the properties of main ingredients of drug, administration of *Balyam Taila-II anuvasana vasti* causes *vata anulomana* (specially of *vyana* and *Apana vayu*), brings *snigdghata* in pregnant woman's body parts like abdomen, flanks, sacrum and perineal area. Due to *balya*, *brimhaneeya* properties it provides strength to the *maanspeshi* of *yonis*. Being *ushnagunapradhana* drug is *vednasthapaka*, *shoolaprashamaniya*.

Murchhita tila taila also has the properties of *murchhana dravyas*, most of which are *tikta*, *katu*, *kashaya rasa pradhana*, so having *krimighana* and *shothahara* properties. So local application in form of *picchu* besides lubricating *yonimarga* and *garbhasthana* also prevents the growth of pathogenic microorganisms in vaginal canal and thus reduces vaginitis and abnormal vaginal discharges.

Modern view:

Cervical ripening is the result of realignment of collagen, degradation of collagen cross linking due to proteolytic enzymes. The mechanisms which soften the cervix and allow it to dilate at birth are not well known. This is a crucial element in labor and current pharmacological approaches, largely the use of prostaglandins (PG), are only semi-selective for the cervix and can cause inappropriate myometrial contractions. Cervical ripening is accompanied by the influx of neutrophils. Neutrophil is a ready source of collagenase and cervix is dependent on collagen for its rigidity. Thus it is important to study factors controlling neutrophil influx into the cervix at term. PGE and interleukin-8 (IL-8, or neutrophil chemotactic factor) work synergistically in inducing neutrophil influx into tissue. Activating this type of synergy, between a vasoactive and a chemotactic agent is likely to be the physiological mechanism for inducing cervical ripening¹³

Yoni picchu:

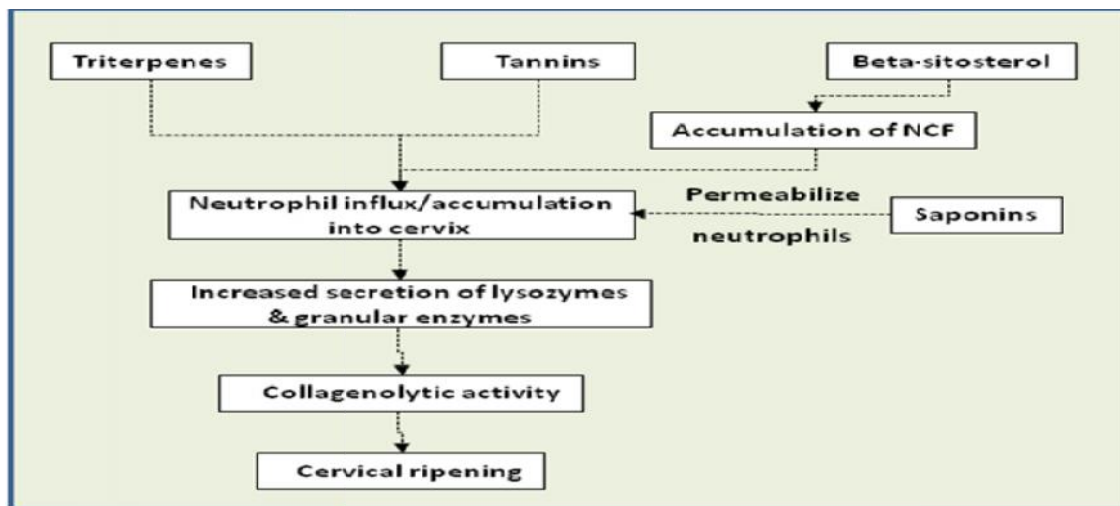
Mode of action of Tila Taila

Prostaglandins used for cervical ripening are short lived substances synthesized from fatty acids¹⁴. Prostaglandins induce pain signals, regulation of inflammation and maintenance of tissue. *Tila taila*; a principal constituent of *Balyam taila-II* has high percentage of polyunsaturated fatty acid (omega-6 fatty acids). Also role of fatty acids

in cervical ripening and parturition has been established.

So this above mechanism may be assumed as the cause of slow cervical ripening with the use of *Balyam taila-II yoni picchu*.

Action of other constituents of Balyam Taila-II (Cervical remodeling during pregnancy and parturition)¹⁵



Mode of action of Vasti:

Anuvaasana and *matravasti* have got a property to regulate sympathetic activity by regulating adrenaline and noradrenaline secretions and helps in the balance of Autonomic nervous system¹⁶

Thus use of *vasti* may also affect the ANS governing myometrium & thus helps in regulating their function during labor.

Thus analysis clearly indicates that the use of *Matra vasti* and *yoni picchu* of *Balyam taila-II* causes cervical ripening, Shortens total duration of labor (particularly 1st stage), Lubricates vagina & perineal area, Increases rate of normal vaginal delivery and finally *sukha* and *nirupdrava prasava*.

CONCLUSION

After going through keen observation of all the available facts, obtained data and discussion we can conclude that therapy given in both the group's results in *sukha* and *nirupadrava prasava*, by causing spontaneous

Further local application of *Tila taila* in form of *yoni picchu* restores moisture to skin keeping it soft and flexible.

onset of labor at term pregnancy, making cervix favorable, shortening the duration of stages of labor (particularly 1st stage) and by increasing the rate of normal vaginal delivery in primipara patients. Further incidence of postpartum complications (PPH, retained placenta) is reduced. Also therapy protocol of Group-I (*matra vasti* at weekly interval) proved more effective than Group-II

SUGGESTIONS:

Chemical analysis of trial drug should be done to see any structural similarity to prostaglandins

To assess the effect of *picchu* on *Yonisrava* and *yoni kandu*, pH of vagina should be detected before and after application of *picchu*

REFERENCES

1. Dutta DC. Text book of Obstetrics, 5th edition, New Central Book Agency (P.) Ltd. Calcutta (India) 2001,pg 514

2. Shastri K Vidyotinivayakhya, Charaka Samhita Varanasi, Sharir 8/32 Chaukhamba Sanskrit Sansthan 2004 pg832
3. Ibid(2), Charaka samhita Sharir 8/32
4. Shukla V, Tripathi, RD, Vaidya Manorama Hindi commentary Charaka Samhita, Siddhi 4/53, Chaukhamba Sanskrit Pratishtan, Delhi, 2006 pg 915
5. Shastri AD Kaviraj, Bhaishjya Ratnavali, jwara chikitsa 5/286-87, 15th edition, Chaukhamba Sanskrit Sansthan Varanasi, 2002 pg 130
6. Shukla V, Tripathi RD. Charaka Samhita (of Agnivesa, Charaka, Dridhabala), Vimanasthana 8/139. Chaukhamba Sanskrit Pratishtan Delhi. 2004, p. 662.
7. Sharma PC, Yelne MB, Database on medicinal plants used in ayurveda volume 1,3,4,5, central council for research in Ayurveda & Siddha, Deptt. of ISM & H, New Delhi, 2000
8. Nadkarni KM, Nadkarni AK, Indian Materia Medica, vol. I, 3rd edition, Popular prakashan Ltd Mumbai 1989
9. Stevan GG. Obstetrics- Normal and Problem Pregnancies. 4th edition (2005). Churchill Livingstone.
10. Ibid Charaka Samhita(6), chikitsasthana 28/9
11. Ibid Charaka Samhita (6), sharirsthana 6/24 pg 759
12. Ibid Charaka Samhita(6), chikitsasthana 28/10
13. American journal of reproductive immunology (neutrophil influx role in cervical ripening) 2002 vol.57 pg217
14. Ibid Text book of Obstetrics(1), pg 504
15. Journal of immunology, Eur J Pharmacol, cervical remodeling during pregnancy and parturition, volume 21, issue 6, June 2010 pg 353
16. Vasudeva MR, Poothri N, Mahadevan L, Principle and practice of vasti, Sri Sarada Ayurvedic Hospital Derisanamcope Tamil Nadu, 2010

CORRESPONDING AUTHOR

Dr. Anubha Chandla

Assistant professor

Department of Prasuti Tantra Avum Stree Rog, S.K.S.S. Ayurvedic College, Sarabha Ludhiana, India

Email: dranubhachandla@gmail.com

Source of Support: Nil

Conflict of Interest: None Declared