

ROLE OF KADAMBA MASHA TAILA ANUVASANA VASTI IN THE NINTH MONTH OF PREGNANCY FOR SUKHAPRASAVA

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ABSTRACT

The most important physical act performed by women is child birth and normal delivery is always beneficial to mother and baby, as compared to surgery because, in operative delivery women may face pre- operative, operative and post- operative surgical complications, so to provide cost effective procedure and to minimize complication, present study is needed. During pregnancy many drugs and procedures are mentioned for *Sukhaprasava* as part of *Garbhini Paricharya*. Among them, the role of *Vasti* is evaluated for its possible role in *Sukhaprasava*. *Vayu* is most likely to be vitiated during pregnancy, and it is described that there is no other remedy more beneficial than administration of '*Vasti*.' 30 patients selected by Simple Randomized Sampling method as per the inclusion criteria after thorough physical and laboratory investigations and patients will be assigned in two groups. The principle treatment administration of *Anuvasana Vasti* resulted in *Anulomana* of *vayu* and finally helping in cervical ripening in less hours and *sukhaprasava* with ease.

KEY WORDS: *Sukhaprasava, Anuvasana vasti.*

INTRODUCTION

Ayurveda, a medical system of world which is serving the ailing humanity since the creation of life is not lagging behind in recognising the most pragmatic feature of a woman

viz. women are the roots of progeny. In *Ayurveda* women are considered to be *Shakti*, the mother and source of creation. So women health is pivot not only for the healthy and happy family but also for whole society. *Acharya Charak* opined that "The woman is the

origin of the progeny". According to WHO preamble "Health is a fundamental Human right and Health is a world wide social goal",

The most important physical act performed by women is child birth and normal delivery is always beneficial to mother and baby, as compared to surgery because, in operative delivery women may face pre- operative, intra-operative and post-operative surgical complications, so to provide cost effective procedure and to minimize complication, so to avoid complication in labour, present study is proposed ¹.

The term 'prakrit prasav'² is defined as it fulfils the given criteria that is –

- Swabhavh - spontaneous onset
- Upasthith kala - at term
- Avaksira - cephalic presentation
- Swabhawik kal - without undue prolongation

According to *Acharya Bhela* "Kadambmasha Taila Anuvasana vasti" is indicated in the ninth month of pregnancy. This *vasti* helps in the removal of *Aama Dosha* and old faeces and do *Anulomana* of *Vayu* which inturns lead to *Sukha* and *Nirupdrav* prasava. So I have taken this study to see the efficacy of *Kadambmasha Taila*

*Anuvasana vasti*⁵ in the ninth month of pregnancy for *Sukhaprasava*.

AIM & OBJECTIVES OF THE STUDY:

1. To achieve normal vaginal delivery within normal duration and without any complications.
2. To evaluate the efficacy of *Kadambmasha Taila Anuvasana vasti* on *Garbhini* in ninth month for *Sukha Prasava*.
3. Biochemical study of *Kadambmasha Taila*.
4. To evaluate the effects of *Anuvasana vasti* on *Garbhini*.

MATERIALS AND METHODS:

Sources of data: Patients attending OPD of the Dept of *Prasooti Tantra* and *StreeRoga*, Shri J.G.C.H.S Ayurvedic Medical College

Ghataprabha, are randomly selected.

Methods of collection of data: It is a single blind, comparative clinical study where a minimum of 30 Patients of primi gravida in their ninth month of gestation will be selected. Being a clinical study, patients will be selected by Simple Randomized Sampling method after thorough physical and laboratory investigations. The selected patients will be assigned into two groups, trial & control group of minimum 15

patients each at random. A special Performa was prepared with all points of history taking, physical signs and investigations. The signs & symptoms were assessed on the basis of standard method of statistical analysis.

a) Inclusion criteria

1. Patients fulfilling criteria of *Garbhini*.
2. Patients within age group 20 to 30 years of age.
3. Cases of average height 5feet.
4. Cases of average weight (45-65 kgs).
5. Cases having haemoglobin 10.5 gm% or more.
6. VDRL, HbSAg and HIV –ve.
7. Patient with vertex presentation.
8. Primigravidae.
9. Pregnant woman who are fit for vasti
10. Pregnant women willing for the trial.

b) Exclusion criteria

1. Cases of anatomical pelvic abnormality.
2. CPD
3. Mal presentation
4. Placenta previa.
5. APH
6. Cases having Hb less than 10.0gm%
7. Cases having pathology of reproductive system like fibroids, fothergill repair, etc.,

8. High risk pregnancies including jaundice, pre-eclampsia, eclampsia, twins, PIH, anaemia, poly and oligo-hydrominos, malaria, epilepsy, rh incompatibility etc.

9. History of repeated abortion, previous LSCS, bleeding per vagina during pregnancy.

10. Cases of systemic disorders like T.B., diabetes, Asthma, Cardiac disorder, Hypertension (130/90 mm of Hg or more), Renal diseases.

11. Pregnant women not willing for the trial.

Sample Size: 30 patients will be selected according to the inclusion criteria. Patients will be assigned in two groups:-

Interventions:

Trial Group: 15 patients will be taken in the trial group. In trial group, A primi-gravida starting from 1st day of 9th month will be given *Kadambmasha Taila Anuvasana vasti* for following duration in given doses with full aseptic precautions^{11,12}.

Anuvasana vasti: (Administered from the 9th month)

Dose: 72ml

Duration: 9 days

Retention Period: 3 yama/9hrs.

Control Group: A primi-gravida

having completed 8th month will be

given routine antenatal care and

labour managed as per modern

system of medicine under the

supervision of the modern

obstetrician attached to the

Ayurvedic hospital (follow up as per

trial group).

Follow Up: Post partum.

Follow Up: Post partum.

Assessment Criteria-

The clinical result was assessed by observing whether the pregnant woman had *Sukha* and *Nirupadrava Prasava* or not and for that the following parameters were adopted.

- 1) Bishop's Score
- 2) Partograph
- 3) Total duration of labour including 3 stage

Gradation Of Assessment Parameters:

I. Cervical Dilatation:

- 0 = 5+ cm
- 1 = 3-4 cm
- 2 = 3-2 cm
- 3 = Closed

II. Cervical Length:

0 = 0 cm

1 = 1 cm

2 = 2 cm

3 = 3 cm

III. Cervical Consistency:

0 = Soft

1 = Medium

2 = Firm

3 = 0

IV. Cervical Position:

0 = Anterior

1 = Midline / Intermediate

2 = Posterior

3 = 0

V. Head Station :

0 = + 1, + 2 Station

1 = - 1, 0 station

2 = - 2 Station

3 = - 3 Station

VI. Duration of Uterine contraction :

0 = > 60 Seconds

1 = 46 – 60 seconds

2 = 31 – 45 Seconds

3 = < 30 Seconds

VII. Frequency Of uterine Contraction :

0 = 4 contractions /10 Minutes

1 = 3 contractions /10 Minutes

2 = 2 Contractions /10 Minutes

3 = 1 Contraction /10 Minutes

VIII. Bishop's Score :

0 = 10 – 13 Score

1 = 7 – 9 Score

2 = 4 – 6 Score

3 = 1 – 3 Score

TABLE NO.1. BISHOP’S MODIFIED SCORING:

Each components is given a score of 0-2 or 0-3. The highest possible score is 13.

	0	1	2	3
Cervical Dilatation(cm)	Closed	1 – 2	3 – 4	5 +
Cervical Length(cm)	3	2	1	0
Cervical Consistency	Firm	Medium	Soft	-
Cervical Position	Posterior	Midline	Anterior	-
Head Station	-3	-2	-1, 0	+1, +2

Interpretation

A score of 5 or less suggests that labour is unlikely to start without induction. A score of 9 or more indicates that labour will most likely commence spontaneously. A low Bishop's score often indicates that induction is unlikely to be successful. Some sources indicate that only a score of 8 or greater is reliably predictive of a successful induction.

RESULT

The present study was carried out in total 30 patients in two groups as prospective study by simple

randomized method of selection. The patients were tested in this clinical trial for drug efficacy. To evaluate the effect of trial treatment on SUKHAPRASAVA, the data's were collected and analyzed on the basis of

- Demographic findings
- Patient clinical findings Criteria for assessment of statistical significance.
- P > 0.05 is 'NS' (Non-significant)
- P < 0.05 and > 0.001 is 'S' (Significant)
- P < 0.001 is 'HS' (Highly Significant)

Table No.2:

Clinical Course Of Labour According To Sign & Symptoms Of A Trial Group

Sign and Symptoms	On add mean ±SE	Follow-up	Mean±SE	Df	T-value	P-value	Remarks
Dilatation	1.667±	3hrs	1.4±0.1309	28	1.468	0.1534	NS

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of cervix	0.126	6hrs	0.8667±0.133 33	28	4.361	0.0002	S
		9hrs	0.8333±0.166 7	25	4.066	0.0004	S
		12hrs	0.3333±0.235 7	22	5.477	<0.000 1	HS
Cervical length	2.267± 0.1182	3hrs	1.6±0.1309	28	3.78	0.0008	HS
		6hrs	1.267±0.1533	28	5.167	<0.0001	HS
		9hrs	0.9167±0.148 6	25	7.206	<0.0001	HS
		12hrs	0.666±0.2357	22	6.76	<0.000 1	HS
Cervical consistency	1.6±0. 1309	3hrs	1.2±0.1746	28	1.833	0.0775	NS
		6hrs	0.8±0.1746	28	3.666	0.0010	S
		9hrs	0.4167±0.193	25	5.235	<0.0001	HS
		12hrs	0.3333±0.235 7	22	5.111	<0.000 1	HS
Cervical position	1.533± 0.133	3hrs	1±0.1952	28	2.256	0.0320	NS
		6hrs	0.8±0.1746	28	3.338	0.0024	S
		9hrs	0.5833±0.193	25	4.17	0.0003	HS
		12hrs	0.3333±0.235 7	22	4.8	<0.000 1	HS
Head station	1.467± 0.1333	3hrs	1.333±0.126	28	0.7268	0.4734	NS
		6hrs	0.8667±0.133 3	28	3.182	0.0036	S
		9hrs	0.8333±0.166 7	25	3.006	0.0060	S
		12 hrs	0.3333±0.235 7	22	4.534	0.0002	HS
No. of contraction	2.467± 0.1652	3hrs	2.2±0.2	28	1.028	0.3128	NS
		6hrs	1.2±0.2225	28	4.57	<0.000 1	HS
		9hrs	0.9167±0.193	25	6.132	<0.000 1	HS
		12hrs	0.4444±0.294	22	6.506	<0.000 1	HS
Duration of contraction	2.867± 0.0908 5	3hrs	2.267±0.1533	28	3.367	0.0022	S
		6hrs	1.6±0.1902	28	6.008	<0.000 1	HS
		9hrs	1.25±0.1794	25	8.532	<0.000 1	HS
		12hrs	1±0.1667	22	10.75	<0.000 1	HS

Table No.2 : Clinical Course Of Labour According To Sign & Symptoms Of A Control Group:-

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Sign and Symptoms	On add mean \pmSE	Follo w-up	Mean\pmSE	Df	T- value	P- value	Remar ks
Dilatation of cervix	2 \pm 0	3hrs	1.867 \pm 0.09	28	1.468	0.1534	NS
		6hrs	1.533 \pm 0.133 3	28	3.5	0.0016	S
		9hrs	1.333 \pm 0.126	28	5.292	<0.000 1	HS
		12hrs	0.6429 \pm 0.24 82	27	5.667	<0.000 1	HS
Cervical length	2.733 \pm 0.1182	3hrs	2.133 \pm 0.133	28	3.367	0.0022	S
		6hrs	2 \pm 0.138	28	4.036	0.0004	HS
		9hrs	1.6 \pm 0.1902	28	5.06	<0.000 1	HS
		12hrs	1.214 \pm 0.1547	27	70867	<0.000 1	HS
Cervical consistency	1.867 \pm 0.0908 5	3hrs	1.533 \pm 0.133	28	2.066	0.0482	NS
		6hrs	1.267 \pm 0.118 2	28	4.025	0.0004	HS
		9hrs	0.9333 \pm 0.15 33	28	5.238	<0.000 1	HS
		12hrs	0.7857 \pm 0.18 69	27	5.314	<0.000 1	HS
Cervical position	1.933 \pm 0.0666 7	3hrs	1.533 \pm 0.133 3	28	2.683	0.0121	S
		6hrs	1.2 \pm 0.1069	28	5.821	<0.000 1	HS
		9hrs	1.133 \pm 0.090 85	28	7.099	<0.000 1	HS
		12hrs	1.071 \pm 0.126 9	27	6.133	<0.000 1	HS
Head station	2.2 \pm 0. 1746	3hrs	1.333 \pm 0.126	28	0.7268	0.4734	NS
		6hrs	0.8667 \pm 0.13 3	28	3.182	0.0036	S
		9hrs	0.8333 \pm 0.16 67	28	3.006	0.0060	S
		12 hrs	0.3333 \pm 0.23 57	27	4.534	0.0002	HS
No. of contraction	2.867 \pm 0.0908 5	3hrs	2.2 \pm 0.2	28	1.025	0.3128	NS
		6hrs	1.2 \pm 0.2225	28	4.57	<0.000 1	HS
		9hrs	0.9167 \pm 0.19 3	25	6.132	<0.000 1	HS
		12hrs	0.4444 \pm 0.29 4	22	6.506	<0.000 1	HS

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Duration of contraction	3±0	3hrs	2.267±0.153 3	28	3.367	0.0022	S
		6hrs	1.6±0.1902	28	6.008	<0.000 1	HS
		9hrs	1.25±0.1794	25	8.532	<0.000 1	HS
		12hrs	1±0.1667	22	10.75	<0.000 1	HS

DISCUSSION –

Hence an attempt has been made to discuss all the aspects of research work. The present study was conducted on 30 gravida, registered on the basis of inclusion and exclusion criteria. 30 primigravida underwent labour in this hospital. So further clinical study was conducted on 30 primigravida.

Type of delivery

The present study showed that some of the gravida in both the groups had NVD with small episiotomy and some had LSCS done. But None of the gravida had forceps delivery or Ventose delivery.

Effect of therapy on Labour

In this study it was analyzed that 86.66% gravida of Trial Group required no other and all the women delivered vaginally and 13.33% gravida underwent LSCS. Whereas in Control group 60% gravida delivered

vaginally with the help of injection oxytocin which

was used for augmentation of labour in gravida. And 40% gravida of Control group underwent LSCS.

Effect of therapy on Modified Bishop's score

In Trial group, out of 15 patients Bishop's score was favourable in 13 patients and unfavourable in 2 patients.

In Control group, out of 15 patients Bishop's score was favourable in 9 patients and was unfavourable in 6 patients.

This effect was probably due to cervical ripening properties of *Anuvasana Vasti*.

Effect of therapy on rate of cervical dilatation (*Anuvasana vasti*) :-

At first follow up, in Trial Group the mean dilatation was 1.4 and in Control group it was 1.86 .

At second follow up, in Trial group the mean dilatation was 0.86 and in Control group it was 1.53.

At third follow up, in Trial group the mean dilatation was 0.83 and in Control group it was 1.33.

At fourth follow up, in Trial group the mean dilatation was 0.33 and in Control group 0.64

On inter group comparison results were significant. This effect was attributed to cervical ripening properties of the *Kadambmasha taila Anuvasana Vasti* in maintaining the effective uterine contractions required for cervical dilatation.

Effect of therapy on duration of stages of labour:-

In present study it was revealed that on comparison of duration of stages of labour with Trial and Control group, the mean duration of first stage of labour in Trial Group was 9.25 hrs and in Control group was 10.66 hrs which was highly significant results were obtained.

The mean duration of second stage of labour in Trial Group was 0.85 hrs and in Control group was 1.59 hrs which was highly significant results were obtained.

The mean duration of third stage of labour in Trial Group was 0.04 hrs and in Control group was 0.015 hrs which was highly significant results were obtained.

Thus therapy protocol of Trial group was more effective than that given in Control group. The therapy shortened the duration of all the stages of labour.

PROBABLE MODE OF ACTION OF DRUGS

1. *Vata* has to play a crucial role in conception till delivery. On the whole the drug has *vatashamak* and *anulomana* properties due to which it maintains *vayu* in normal state.
2. Due to *snigdha guna* it causes *mriduta* of mother's body parts. It alleviates *sthanik rukshata* and lubricates *yoni marga*.
3. Its *balya* and *brimhaneeya* properties provide strength to the *maanspeshis* of *yoni*.
4. *Garbhashyashodhana* property of oil indicates its specific action on genital tract and regulate function of *apanavayu*

MODERN POINT OF VIEW

1. **Tilataila;** a principal constituent of *taila* has high percentage of polyunsaturated fatty acid (omega-6 fatty acids). Also role of fatty acids in cervical ripening and parturition has been established.
2. Oil acts as lubricant so, make the vaginal passage and cervix soft and pliable.

In Trial group, out of 15 patients, 13 patients underwent NVD with small episiotomy, 2 patients underwent caesarian section , one due to heavy weight of baby and other due to cord around the neck which resulted in foetal distress and finally LSCS was advised.

In Control group, out of 15 patients, 6 patients underwent caesarean section ,some due to lack of bearing down efforts ,some due to cord around the neck finally resulting in foetal distress and then LSCS was advised and 9 patients underwent NVD with small episiotomy.

CONCLUSION

By use of *kadamb masha taila anuvasana vasti*, the stages of labour especially 1st and 2nd stage was shortened from the exact time mentioned in the classics i.e 12 hrs

and 2 hrs respectively.

Kadamb masha taila anuvasana vasti had good effect on ripening of cervix and stretching and relaxing of vaginal canal and on perineum in trial group.

In trial group only 2 patients underwent LSCS that was also due to heavy weight of baby and cord around the neck and in control group 6 patients underwent LSCS due to lack of bearing down efforts. Since *masha* had *bhrimniye* properties, it is assumed that by this property patient get enough strength to bear the powerful uterine contractions at the time of labour.

So, a comparison of outcome among patients of trial and control group , trial group patients shows that *kadamb masha taila anuvasana vasti* produced significantly better results than patients placed in control group.

In all the parameters i.e cervical dilatation, duration of uterine contraction, and duration of stages of labour ,statistical analysis produced p value <0.05 indicating drug employed is really effective.

However,because of limited number of patients in the present study it would be advisable to conduct a wider study employing more number of patients at

different centers so that these valuable *Ayurvedic* medicines can be employed for the welfare of society in the days ahead.

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