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Research Article

EFFICACY OF ANTENATAL MANAGEMENT IN AYURVEDA DURING 8TH AND 9TH MONTH OF PREGNANCY

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KEYWORDS: *Garbhini paricharya,* 8th and 9th Month of Pregnancy, Bala siddha taila basti, *Niruha basti, Mudga* & *Masha Yavagu.*

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ABSTRACT

Garbhini paricharya is advised for preventing harm to mother and fetus, to attain full fetal maturity and for normal uneventful labour. By keeping this goal in mind the *Upakrama* of *Niruha basti* and *Anuvasana basti* was selected. 100 patients were selected for this study and divided into two groups. In Control Group, there are 50 patients with Standard management (iron+ calcium) with routine diet during pregnancy. In Trial Group, there are 50 patients with Standard management (iron+ calcium) along with *Garbhini paricharya*.

The clinical study was done for evaluation of efficacy of antenatal management in Ayurveda during 8th & 9th month of pregnancy. *Bala taila* is highly effective to bring about spontaneous labour onset at optimal time. Duration of labour was reduced by *Bala siddha taila basti* due to its regulation of *Prasuti Marut.*

Maternal and foetal complications during ante natal and post natal period are reduced due to *Bala siddha taila Anuvasan basti*, *Niruha basti* and due to high quality nutritive supplementation (*Mudga* & *Masha Yavagu*).

Maternal as well as fetal weight gain was good due to high quality nutritive supplementation as described in Ayurvedic texts, and it provides optimal nutrition of mother and fetus. The Ayurvedic regimen has promise of providing the optimal and balanced nutrition by using quality ingredients.

INTRODUCTION

Garbhavastha (pregnancy) is a dream way to achieve the goal of motherhood. It begins with conception and culminates in arrival of lovely human being. *Garbhavastha* is marked by peculiar state of *Doshas*, explained as "*Tailamivapoornapatram*" in *Samhitas*. It means that *Garbhini* can land up into many complications if she consumes improper diet or follows wrong habits (lifestyle). Acharyas have recommended *Garbhini paricharya* (*Aahar, Vihar* and *Vichar*) to maintain healthy pregnancy and to ensure delivery of healthy baby.[1]

Pregnancy and child birth is a turning point in a women's reproductive life. '*Garbhini*' in our science is said to be in a very sensitive state. She is compared with a vessel full of oil. [2]

Aims of *Garbhini Paricharya*

1. To minimize maternal and fetal complications during pregnancy.
2. To nourish and develop healthy fetus.
3. To ensure easy, uneventful labour.

As the style of living is changing nowadays it can have hazardous effects on the health of woman and child. In clinical practice many disorders during

pregnancy and labour arise from lack of proper and balanced nutrition. Optimum and balanced maternal nutrition is essential for good reproductive performance. Selection of patients was done for 8th and 9th month *Paricharya* during this study, which is as follows.

8th month *Paricharya*: For nourishment of mother and development of healthy fetus. *Yavagu* is *Purak* or supplementary/nutritious diet which helps the pregnant woman to remain healthy and ensures delivery of the child possessing best health, energy, complexion and voice. [3] The last trimester of pregnancy belongs to *Vata* (*Vayohoratri bhuktanam, Vata* dominance). Vitiated *Vata* can create many disorders in *Garbha* and *Garbhini*, such as growth retardation, prematurity, *Moodhagarbha* in *Garbha* and APH, PIH, *Malavarodh, Udavarta* in *Garbhini*. To prevent these conditions Vagbhata 2nd has advised *Anuvasan basti* prepared by using *Madhur aushdhi Siddha* drugs (*Bala sidha tail*) for evacuation of the *Puran shakrut*. This is followed by *Niruha basti* made from decoction of *Shushka muli, Badari* and sore (*Amla*) substances mixed with *Kalka* of *Shatpushpa*, *Ghruta*, *tail* and *Saindhav*. It gives strength to *Garbhashaya* and can prevent preterm labour by preventing *Udavarta* and *Akala avi pradurbhava* i.e., premature contractions/labour. *Aasthapan* or *Niruha basti* is claimed to have *Rasayan* or rejuvenation properties, so it may help in normalizing the anatomy and physiology of reproductive organs for preparation of parturition. [4]

9th month *Paricharya*: [5] *Vayu* becomes more active in 9th month. *Basti* is the best mode of treatment for *Vayu*. We used *Bala tail* for *Anuvasan Basti* which had effects like *Vatshaman, Vatanuloman & Snehan* (emollition) of *Apatyapath* therefore can be helpful for *Sukhaprasav*. [6] Long Chain Polyunsaturated Fatty Acids (LCPUFA) is major component of cellular membrane and has vital functions in every metabolic function in the body. PUFA are vitally important structural element of cell membranes and therefore essential for the formation of new tissue which occurs during pregnancy and fetal development. In 3rd trimester of pregnancy and during early childhood, the brain has its growth spurt. Therefore an appropriate pre and post natal supply of PUFA is thought to be essential for normal fetal and neonatal brain growth, neurological function & development, the activity of retinal photoreceptors and learning and behavior.

AIM AND OBJECTIVES

Aim: Efficacy of antenatal management in Ayurveda during 8th and 9th month of pregnancy.

Objectives

- To study efficacy of *Masha* and *Mudga yavagu* on fetal nutrition in 8th and 9th month of pregnancy.
- To study efficacy of *Asthapan Basti* in 8th month of pregnancy.
- To study efficacy of *Bala siddha Tail Anuvasan Basti* in 8th and 9th month of pregnancy on reproductive performance (Mode of delivery, Baby weight, any other complications).
- To study effect of this part of *Garbhini paricharya* on biochemical estimation (LCPUFA levels).
- Literary review of *Garbhini* Dietary Habits.

MATERIALS AND METHODS

Materials & Dra*vya Vichar*

- The drug *Bala siddha* tail was taken from reputed local Pharmaceutical Company.
- The *Mudga* and Mash *Yavagu* were prepared by standard method mentioned in *Sharangadhar Samhita* and explained to all trial group patients.
- No objection and ingredient certificates were obtained from pharmacy.
- Authentication of the drugs was done from authorized centre.

Yavagu

Drug: *Mudga* (Seed) - (*Vigna Radiata*)

Drug: *Mash* (Seed) - (*Teramnus labialis*)

Niruha Basti

Eliminates *Dosha* from the body, increase the strength of the body or Spreads the potency of the drug in the body due to the *Prabhava*. [7]

Kwath (Decoction) of *Shushka muli, Badar, Amla Padartha*, with *Kalka* of *Shatpushpa* and *Ghruta*, *Tail*, *Saindhav*.

Anuvasan Basti

Drug: *Bala siddha taila*

***Yavagu*:** According to *Sharangadhar*, 64 *Palas* of water is added to 16 *Tolas* of rice or barley, boiled and reduced to half quantity, and then the preparation is called as *Yavagu*.

Niruha Basti

- *Kwath* (decoction) of *Shushka muli*, *Badar, Amla padartha*, with *Kalka* of *Shatpushpa* and *Ghruta*, tail, *Saindhav*.
- No. of *Basti* – once in 8th month.

Table 1: 8th & 9th Month *Garbhini Paricharya* Advised regimen by *Samhitas*[1]

No. of month	Charaka	Sushruta	Vagbhata
8th	*Dugdha Siddha Yavagu*[8]	*Asthapna Basti Anuvasan Basti*	*Ghritayukta ksheer peya madhur-dravya Siddha ghrita-anuvasana & Niruha* of *Mulak badar shatahva* etc. [9]
9th	*Anuvasan basti pichu* [10]	*Asthapna Basti Anuvasan Basti*[11]	*Mansarsa, Snehayukta yavagu, Anuvasana, Pichu*[12]

Table2: Drugs of *Niruha basti*

Drug's Name	Latin Name	Quantity
Shushka mulak	*Raphanus sativus* Linn	25gm
Badar	*Zizyphus mauritiana* Lam	25gm
Amalaki	*Emblica officinalis*	25gm
Shatapushpa	*Anethum sowa* kruz	3gm
Til Tail (Sesame Oil)	*Sesamum Indicam*	30ml
Goghrit	Cows ghee	3gm
Saindhav	Rock salt	3gm
Madhu	Honey	10gm

Requirement/Equipment

Enema can, rubber catheter, prescribed medicine (contents of *Niruha Basti*), water bath, cloth for draping, towel for fomentation, oil for *Abhyanga*, hand gloves.

Preparation of the Medicine

The medicine used in *Niruha Basti* consists of following ingredients *Shushka mulak, Badar*, *Amalaki, Shatapushpa, Til Tail, Goghrit, Saindhav*, and *Madhu*.

Method of Preparation

Step 1- 3gm of *Saindhavlavan* and 10gm of *Madhu* mix together and then *Sneha* i.e. *Gogrut* (3 gms appx 5ml) + *Til* tail (30ml) in a clean and dry container.

Step 2-Add *Kalka* of *Shatpushpa* (3gs).

Step 3- At the end mix *Kwath* of *Badar* (25gm), *Amalaki* (25gm) and *Shushka- mulak* (25gm).

Step 4- Mix all the drugs thoroughly.

Step 5- This whole mixture emulsified with churner or electronic mixer.

Before last the properly mixed combination of this medicine is heated to make it lukewarm.

Selection of Patients

Inclusion Criteria

1. Primi Para
2. Who are already registered in this study from 2nd month of pregnancy

Exclusion Criteria

1. Present pregnancy with chronic illness viz. PIH, G.D.M., Heart disease.

Study Design

Number of Patients: Total 100 pt. were studied in two groups.

Control Group: 50 patients with Standard management (iron+ calcium) with routine diet during pregnancy.

Trial Group: 50 patients with Standard management (iron+ calcium) + *Garbhini paricharya* which are mentioned.

Assessment Parameters: The efficacy of the drug was judged on the following parameters-

1) Maternal weight gain
2) Foetal weight by USG
3) *Garbhashaya vruddhi* (Fundal height)
4) Abdominal girth (at umbilicus)
5) Foetal weight record
6) Neonatal weight
7) Mode of delivery
8) Onset of labour
9) Labour progress- according to partogram

10) Augmentation required or not required
11) Total duration of labour

Investigations

1. Routine investigations of *Garbhini* (Haemogram, Blood Group, BSL(R), HIV, VDRL, HbsAg, Urine R/M.)
2. USG (trimester wise)
3. Oxidative stress
4. Plasma long chain polyunsaturated fatty acids levels (Plasma PUFA)
5. Erythrocyte long chain polyunsaturated fatty acids levels (LCPUFA)
6. Placental long chain polyunsaturated fatty acids levels (Placental PUFA)
7. Lactational long chain polyunsaturated fatty acids levels (Lactation PUFA)

Place of Work

Clinical work: OPD in Bharati Ayurved Hospital

Laboratory work: Interactive Research School of Health Affairs (IRSHA)

Statistical Method

Appropriate statistical method was used. 'Z' test was used.

Observations and Statistical Analysis

Observations were represented with the help of various tables and graphs. Statistical analysis was done by SPSS software version 10 (t, and Wilcoxan sign rank test) and statistical significance was set at $P < 0.05$.

Table 3: Age

Age (yrs.)	**Trial**	**Control**
18 to 21 yrs	32	30
upto 24 yrs	14	15
upto 27 yrs	4	3
upto 30 yrs	0	2
Total	50	50
Age (%)	**Trial (%)**	**Control (%)**
18 to 21 yrs	64.00	60.00
upto 24 yrs	28.00	30.00
upto 27 yrs	8.00	6.00
upto 30 yrs	0.00	4.00
Total	100.00	100.00

The age wise distribution shows that maximum volunteers were belonging to the age group 18-21 yrs. Only primi para were selected as volunteers. 2 volunteers from control group were between 28- 30 yrs.

Table 4: Occupation

Occupation	**Trial**	**Control**
Housewife	35	42
Working	3	2
Students	12	6
Total	50	50
Occupation (%)	**Trial (%)**	**Control (%)**
Housewife	70.00	84.00
Working	6.00	4.00
Students	24.00	12.00
Total	100.00	100.00

Distribution in this study based on occupation shows that almost all the cases were housewives.

Table 5: Socio-Economic Status

Socio-Economic Status	Trial	Control
Low class	31	22
Middle class	18	25
High class	1	3
Total	50	50
Socio-Economic Status	**Trial (%)**	**Control (%)**
Low class	62.00	44.00
Middle class	36.00	50.00
High class	2.00	6.00
Total	100.00	100.00

Distribution of economic status shows that the cases from trial group were almost lower class.

Table 6: *Katishool*

Katishool	**Present**	
	Before Treatment	**After Treatment**
Trial	25	3
Control	20	14

Table 7: Statistical Analysis for change in *Katishool* in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Katishool	0.320	0.0898	Z test for proportion	3.563	Significant

The table shows the statistical analysis for *Katishool* in two different groups, where the Z score shows the difference is significant at the end of study. There is significant difference in *Katishool* in trial group as compared to control group.

Table 8: *Adhodarshool*

Adhodarshool	**Present**	
	Before Treatment	**After Treatment**
Trial	11	5
Control	16	11

Table 9: Statistical Analysis for change in *Adhodarshool* in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Adhodarshool	0.020	0.0626	Z test for proportion	0.3200	Not Significant

The table shows the statistical analysis for improvement in *Adhodarshool* in two different groups, where the Z score shows the difference is not significant at the end of study. There is no significant difference in *Adhodarshool* in both groups.

Table 10: *Malavashtambh*

Malavashtambh	**Present**	
	Before Treatment	**After Treatment**
Trial	13	3
Control	20	11

Table 11: Statistical Analysis for change in *Malavashtambh* in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Malavashtambh	0.020	0.0785	Z test for proportion	0.2549	Not Significant

The table shows the statistical analysis for *Malavashtambh* in two different groups, where the Z score shows the difference is not significant at the end of study. It means that there is no significant difference in *Malavashtambh* in both groups.

Table 12: Onset of Labour

Onset of labour%	Induced	Spontaneous
Trial	16	84
Control	54	46

Table 13: Statistical Analysis for change in Onset of Labour in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Onset of Labour	0.38	0.0954	Z test for proportion	3.983	Significant

The table shows the statistical analysis for Onset of Labour in two different groups, where the Z score shows the difference is significant. It means that there is significant increase in spontaneous Onset of Labour in trial group as compared to control group.

Table 14: Need for Augmentation

Need of augmentation %	Yes	No
Trial	24	76
Control	80	20

Table 15: Statistical Analysis for change in Need for Augmentation in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Need for Augmentation	0.56	0.0999	Z test for proportion	5.604485	Significant

The table shows the statistical analysis of Need for Augmentation in two different groups, where the Z score shows the difference is significant. It means that there is significantly less Need for Augmentation in trial group as compared to control group.

Table 16: Partogram Curve

Partogram Curve%	Abnormal	Normal
Trial	26	74
Control	72	28

Table 17: Statistical Analysis for change in Partogram Curve in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Partogram Curve	0.46	0.0999	Z test for proportion	4.601	Significant

The table shows the statistical analysis for Partogram Curve in two different groups, where the Z score shows the difference is significant. It means that there is significant difference in Partogram Curve in trial group as compared to control group.

Table 18: Total Duration of Labour

Total duration of Labour%	More than 12 hrs.	Less than 12 hrs.
Trial	12	88
Control	64	36

Table 19: Statistical Analysis for change in Total duration of Labour in two groups

Variable	Proportion difference	SE	Applied Test	Z score	Significance
Total duration of Labour	0.52	0.0971	Z test for proportion	5.357	Significant

The table shows statistical analysis for Total duration of Labour in two different groups, where the Z score shows the difference is significant. It means that there is significant difference in Total duration of Labour in trial group as compared to control group.

Table 20: Increase in Weight of the Patients

Patients' Average increase in Weight in kgs.	
Trial	3.83
Control	3.07

Table 21: Statistical Analysis for change in Patients' Weight in two groups

Variable	Mean difference	SE	Applied Test	Z score	Significance
Patients' Weight	0.76	0.13	Z test for mean	6.00	Significant

The table shows statistical analysis for increase in Patients Weight in two different groups, where the Z score shows the difference is significant at the end of study. It means that there is significant increase in Patients Weight in trial group as compared to control group.

Table 22: Increase in Fetal Weight

Average increase in Fetal Weight in gms.	
Trial	1833.78
Control	1532.40

Table 23: Statistical Analysis for change in Fetal Weight in two groups

Variable	Mean difference	SE	Applied Test	Z score	Significance
Fetal Weight	301.38	62.70	Z test for Mean	4.81	Significant

The table shows statistical analysis for improvement in Infant Weight in two different groups, where the Z score shows the difference is significant at the end of study. It means that there is significant increase in Fetal Weight in trial group as compared to control group.

Table 24: Birth Weight

Average Birth Weight in gms.	
Trial	3158.80
Control	2712.00

Table 25: Statistical Analysis for change in Birth Weight in two groups

Variable	Mean difference	SE	Applied Test	Z score	Significance
Birth Weight	446.80	78.09	Z test for Mean	5.72	Significant

The table shows the statistical analysis for Birth Weight in two different groups, where the Z score shows the difference is significant at the end of study. It means that there is significant difference to increase in Average Birth Weight in trial group as compared to control group.

Table 26: Mode of Delivery

Mode of Delivery in %	Trial	Control
FTND	66	42
PTVD	6	6
PDVD	0	0
LSCS	28	48
PTLSCS	0	4
PDLSCS	0	0

In trial group 66 % women delivered full term vaginally, but in Control group 42% women delivered full term vaginally.

Biochemical Estimation

Table 27: LCPUFA Levels at the end of 9th month

Fatty Acids (g/100g fatty Acids)				
Groups	LA	ALA	AA	DHA
Control	31.64	0.43	6.7	0.45
Trial	31.83	0.49	7.38	0.47

The difference between LCPUFA levels of both trial & control groups is not significant.

Table 28: MDA Levels at the end of 9th month

Group	MDA (nmols/ml)
Control	12.85
Trial	12.73

The difference between MDA levels of both trial & control groups is not significant.

Table 29: Placental LCPUFA Levels

Fatty Acids(g/100g fatty Acids)				
Groups	LA	ALA	AA	DHA
Control	30.46	0.32	6.95	0.52
Trial	29.79	0.48	5.71	0.5

The difference between Placental LCPUFA levels of both trial & control groups is not significant.

Table 30: Placental MDA Levels

Group	MDA(nmols/ml)
Control	13.42
Trial	12.68

The difference between Placental MDA levels of both trial & control groups is not significant, 8 volunteers from trial group needed induction (dionoprostone) had cervical ripening and favorable Bishop's score (> 6) and position of cervix was anterior and consistency was soft. None of them needed augmentation. All delivered normally and total labour duration was less than 12 hrs. The volunteers from control group those needed induction with cerviprime (dionoprostone gel) were 26 had cervix posterior and consistency was firm, 4 had cervix mid posterior and consistency was medium, 1 had cervix posterior and consistency was medium.16 of them required LSCS, 9 had normal delivery but needed augmentation with oxytocin drip and labour duration was more than 12 hrs. Only 1 needed no intervention with drugs. Thus for labour onset on proper time cervical ripening is necessary, which is achieved by *Anuvasan basti* causing local oleation and softening of cervix and perineum. Again this is due to maintenance of normal functioning of *Vata*.

Table 31: Distribution according to need of augmentation

Need of augmentation %	Yes	No
Trial	24	76
Control	80	20

In trial group only 24% volunteers needed augmentation out of which only 4 volunteers needed L.S.C.S. In control group 80% volunteers needed augmentation, out of which 18 volunteers needed L.S.C.S. due to uterine inertia. The uterine inertia results in delay in cervical dilatation, prolonged labour, foetal distress and hence is unfavorable for normal labour. In trial group very few volunteers needed augmentation with oxytocin in minimal dosage.

Table 32: Distribution according to Partogram curve

Partogram Curve%	Abnormal	Normal
Trial	26	74
Control	72	28

In trial group only 13 volunteers had abnormal partogram curve. As the progress of labor depends on cervical dilatation, effacement, uterine contractions, foetal descent and bearing down efforts etc both *Basti* help keep all factors in balanced state favoring normal labour. Thus this treatment is said to be highly effective in normal labour in every aspect.

Table 33: Distribution according to total duration of labour

Total duration of Labour%	More than 12 hrs.	Less than 12 hrs.
Trial	12	88
Control	64	36

Table 34: Increase in Weight of the patients

Average increase in maternal Weight (kgs).	
Trial	3.83
Control	3.07

This table shows that average maternal weight gain in 8th & 9th months from trial group was significantly more than that of control group. This is due to optimal nutrition provided by *Yavagu*, which is a rich source of proteins (essential amino acids) & PUFA showing high rate of absorption.

Table 35: Incidence of Increase in Fetal Weight

Average increase in Fetal Weight (gm).	
Trial	1833.78
Control	1532.40

This table shows that average foetal weight gain in 8th & 9th months from trial group was significantly more than that of control group. Fetus gains maximum weight (approx. 1.5-2kg) in the last trimester of pregnancy. This is again due to optimal nutrition provided by *Yavagu*, which is a rich source of proteins (essential amino acids) and PUFA showing high rate of absorption and transfer to fetus by placenta.

Table 36: Birth Weight

Average Birth Weight in gm.	
Trial	3158.80
Control	2712.00

This chart shows a significant difference between the average birth weights of both groups. Trial group shows nearly 400gm more weight than control group. We would like to credit this difference

to the virtues of *Yavagu*, which again has proved to be a perfect dietary regimen especially in later months of pregnancy.

Table 37: Distribution according to Mode of Delivery

Mode of Delivery in %	Trial	Control
FTND	66	42
PTVD	6	6
PDVD	0	0
LSCS	28	48
PTLSCS	0	4
PDLSCS	0	0

According to WHO, only 63% primipara patient deliver normally without any invasion and have spontaneous onset. In trial group 66% FTNDs & 6% PTNDs (total 72%) were seen; only 14 volunteers out of 50 (28%) needed L.S.C.S. But in Control group only 42% women delivered full term vaginally whereas 48% needed L.S.C.S. So there is high incidence of normal delivery in trial group. The volunteers who needed L.S.C.S. also had good cervical effacement, dilatation and effective uterine contractions. Indications for L.S.C.S. were different from cervical dystocia. Nowadays cervical dystocia is considered as leading cause for invasive labour. However we were able to overcome the cervical factor.

Other beneficial effects of *Anuvasana basti*

120ml is the *Matra* of *Anuvasan basti. Anuvasan basti* had many benefits as follows:

1. One volunteer had less foetal movements, but after 2-3 *Basti,* she had marked foetal movements.
2. No side effects / complications of *Anuvasan basti* were noted. Many volunteers had soft stools, no one had constipation.
3. 2 volunteers had dribbling micturation which recovered satisfactorily after *Anuvasan basti.*

Thus the treatment was effective in terms of reproductive performance and did not cause any untoward side effects which would be hazardous to maternal or foetal health.

Concept of cleansing of intestine and retention of *basti*

Basti may cleanse some part of the intestine by repeated evacuation. Whole intestine is covered by 4 layers i.e., muscular, sub mucosa, serous and mucosal layer. *Basti dravya* comes in contact with mucosal layer which is superficially situated. When the intestine get purified daily the layer of intestine and villi get the nutrition and further absorption of micronutrients may be enhanced and these micronutrients may enter the circulation and finally it reaches the target organ. As *Basti* which is given in minimal quantity, retain for longer time. So the drug will act locally or systemically after the absorption through the mucous membrane of the rectum. The rectum contains minute vein, the mucous membrane of the intestine can easily absorb the lipid soluble content. Finally it reaches to circulation, thus drug may get delivered to the target organ. According to modern science, there is no digestive action of fat or oil in stomach. The fat digestion and absorption takes place in large intestine. *Basti* drugs contain *Sneha Dravya* in sufficient quantity, when it is introduced through the rectum it gets easily absorbed in large intestine. Best and Tayler have mentioned that "materials introduced by Enema, in some instances pass through the walls into the ileum; such incompetence may permit the enema fluid to reach the duodenum". Also the possibility of materials from even the lower bowel, reaching the stomach is strongly suggested by the fact that lycopodium spores introduced into the colon by enema have been recovered some hours later from washing of the stomach. Dwarkanatha suggested that "*Basti* therapy by various of its medicaments greatly influences the normal bacterial flora of the colon." By doing so it modulates the rate of endogenous synthesis of vitamin B12 which is normally manufactured by colonicerial flora. This vitamin B12 may have a role to play in the maintenance or regeneration of nerves. According to him it was one of the possible mechanism through which *Basti* could help in *Vatika* or Neurological diseases.

Role of *Basti*

1. *Basti* therapy by various of its medicaments greatly influences the normal bacterial flora of the colon. By doing so it modulates the rate of endogenous synthesis of vitamin B12.
2. This vitamin B12 may have a role to play in the maintenance or regeneration of nerves. It was one of the possible mechanism through which *Basti* could help in *Vatika* or Neurological diseases.

However no significant difference was found in the LCPUFA levels between both groups. But beneficial effects of local (*Basti*/Enemata) and internal (*Yavagu*) treatments are hard to ignore. This effect can be attributed to high quality of protein source (*Yavagu*) as well as regulation of *Vata* by *Basti*, which helped enhance the overall reproductive performance. Further extensive research is needed to prove the role of LCPUFA in improving the birth

CONCLUSION

The clinical study was done for evaluation of efficacy of Antenatal management in Ayurveda during 8th & 9th month of pregnancy. *Bala taila* is

highly effective to bring about spontaneous labour onset at optimal time. It causes more than 1cm dilatation per hour & thus labour progress was within optimal time. Duration of labour was reduced by *Bala siddha taila basti* due to its regulation of *Prasuti Marut*.

Invasive delivery (Forcep / ventouse) rate is reduced and Partogram that reflects progress of labour is normal due to *Bala siddha taila basti*. Maternal and foetal complications during Ante natal and post natal period are reduced due to *Bala siddha taila Anuvasan basti*, *Niruha basti* & due to high quality nutritive supplementation (*Mudga* & *Masha Yavagu*). Maternal complaints like constipation, backache, lower abdominal pain are relieved and patient remains comfortable due to *Niruha basti*. *Bala siddha taila Anuvasan basti* & *Niruha* basti ensures easy, uneventful labour. The Ayurvedic regimen has promise of providing the optimal and balanced nutrition by using quality ingredients.

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