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Research Article

A COMPARATIVE CLINICAL STUDY ON THE EFFICACY OF *SUKUMARAGRITHA* IN *SUKHAPRASAVA*

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ABSTRACT

Antenatal care is essential "to maintain the health in the affluent society" and "to improve the health in developing countries". Ensuring healthy and safe motherhood with utmost care rendered to every woman is the outright responsibility of an obstetrician. Child birth is a very dynamic process and the women need to be well prepared for it. The contemporary system uses analgesia and anaesthesia to reduce pain during labour but have no proved measures to shorten the period of 1st stage of labour. In Ayurveda similar efforts are being incorporated by means of drugs, among them there are many formulations for the pregnant women to deliver with ease. *Sukumara Gritha* which is used to correct *Vata dosha* has been selected for the present study.

A comparative clinical study with pre- test and post- test design conducted on 40 pregnant women fulfilling the inclusion criteria were selected randomly from OPD and IPD of Prasooti Tantra Evam Stree Roga Department of Shri Kalabyreshwaraswamy Ayurvedic Medical College Hospital and Research Center, Bangalore and assigned into two groups, each comprising of 20 patients. Group A- 20 patients were administered with *Sukumara Gritha* 2 tsf before food with luke warm water for 1 month before EDD. Group B - 20 patients were administered with *Goghrita*. Continuous observation was done for the progress of labour using Partogram and Bishop's score.

Results were calculated and statistically and showed significant in1st stage of labour. For second and third stage, no difference was found. Group A showed better cervical ripening and shortened the number of hours in the first stage of labour compared to Group B.

KEYWORDS: *Sukumara gritha, Sukhaprasava,* Labour.

INTRODUCTION

Pregnancy and labour are physiological entities which may turn pathological at point of any time. *Garbhini paricharya* is not only essential to improve the health of mother and foetus, but also essential to prevent many complications like *Moodha Garbha, Dushprajataja Amayas*.[1] Even though specific *Garbhini paricharya* for 8th and 9th month like *Asthapana & Anuvasana Basti*,[2,3] has been mentioned by our *Acharyas*, with the present day busy lifestyle of women the practice could be modified for her benefits.

Administration of *Gritha* has been mentioned throughout the *Paricharya*[4] to combat *Vata dosha*, which modifies itself into *Prasuta maruta* during *Prasava*. Hence, in the present study oral administration of *Sukumaragritha* and *Go-gritha* has been taken up, as it seems to be more acceptable route of medicine administration.

Aims and Objectives

1. To assess the efficacy of *Sukumara gritha* in *Prasava*.
2. To assess the efficacy of *Go-ghrita* in *prasava*.
3. To compare the efficacy of *Sukumara gritha* and *Go-ghrita* in *Prasava*.

MATERIAL AND METHODS

Subjects attending OPD and IPD of *Prasootitantra evam Streeroga* of SKAMCH & RC, Bangalore, were recruited for the study

then detailed examination done on the basis of a specially prepared CRF incorporation all the details related to the study. This study trail on 40 primi gravidae with 36 weeks of gestational period and on regular ANC were taken for the study.

Inclusion criteria

- All primigravidae with 36 weeks of gestation
- Age group of 20-30 years

Exclusion criteria

- Pregnancy with Ante Partum Haemorrhage, pre-eclampsia.
- Patients with systemic disorders
- Pregnant woman with short stature. i.e. < 4'.8''
- Pregnancy with BOH

Medicament used in the study [5]

Sukumara ghrita- consists of *Punarnava (Boerhaavia diffusa), Bilva (Aegle marmelos), Agnimantha (Premna mucronata), Shyonaka (Oroxylum indicum), Patala (Stereospermum suaveolens), Gambhari (Gmelina arborea), Brihati (Solanum indicum), Kantakari (Solanum xanthocarpum), Gokshura (Tribulus terrestris), Shalaparni (Desmodium gangeticum), Prishnaparni (Uraria picta), Payasya (Kshirakakoli) (Roscoea purpurea), Ashwaganda (Withania somnifera), Eranda (Ricinus communis), Shatavari (Asparagus racemosus), Darbhamoola (Erianthus arundinaceum), Kushamoola (Desmostachya bipinnata), Kashamoola (Saccharum spontaneum), Shara moola (Saccharum arundinaceum), Ikshumoola (Saccharum officinarum), Potagala moola (Typha elephantine), Guda (Jaggery), Eranda taila (Castor oil), Ghrita, Kshera, Krishna (Long piper fruit), Krishnamoola (Long piper root), Saindhava Lavana (rock salt), Yashti (Licorice – Glycyrrhiza glabra), Madhuka (Madhuka longifolia), Mridvika (Raisins), Yavani (Trachyspermum ammi), Nagara (ginger).* The medicine was purchased from market.

Design of the study

It is an open label double arm control study.

Intervention

- Group A: 20 primigravidae were administered with 10ml of *Sukumara gritha* daily with warm milk as *Anupana* before food at night from 36 weeks of gestation onwards.
- Group B: 20 primigravidae were administered with 10 ml of go-gritha daily with warm milk as Anupana before food at night from 36 weeks of gestation onwards.

Assessment criteria

- Maternal and foetal wellbeing and the progress of labour, was assessed on standard parameters of Bishop's scores and Partograph.
- Time taken in different stages of labour was assessed.

Final Assessment

- Outcome of the different stages of labour was observed, assessed & was compared with the control group.

BISHOP'S SCORE[6]

Bishop's score <5 is unfavourable and score (0-5)
>5 is considered as favourable (6-13)

Parameters	0	1	2	3
Cervical dilatation (cm)	Closed	1-2	3-4	5+
Cervical effacement	<30%	40-50%	60-70%	80%
Consistency of cervix	Firm	Medium	Soft	-
Position	Posterior	Midline	Anterior	-
Head station	-3	-2	-1,0	+1,+2

Investigations

Routine pregnancy profile-blood group with Rh type, CT, BT, HIV, HBsAG, VDRL, Hb%, RBS, Urine routine and microscopy examination.

Observations

Table 1: Incidence with age group (n=40)

Age group	Group A	%	Group B	%	Total	Percentile
20-25	15	75%	10	50%	25	62.5%
26-30	5	25%	10	50%	15	37.5%

Group A- 15 patients were in the age group of 20-25 years, 5 patients in the age group of 26 to 30 yrs.

Group B- 10 patients were in the age group of 20-25 years, 10 patients in the age group of 26 to 30 yrs.

Among 40 patients included in the study, 25(62.5%) were in the age group of 20 to 25 yrs and 15 (37.5%) in the age group of 26 to 30 yrs.

Table 2: Incidence with diet (n=40)

Diet	Group A	%	Group B	%	Total	%
Vegetarian	12	60	10	50	22	55
Mixed	8	40	10	50	18	45

Group A- In Group A, 8 patients were of mixed diet and 12 were vegetarians.

Group B- In Group B, 10 patients were of mixed diet and 10 were vegetarians.

Among 40 patients, 18 (45%) patients had mixed diet, whereas 22 (55%) were vegetarians.

Table 3: Incidence with Occupation (n=40)

Occupation	Group A	%	Group	%	Total	%
Home maker	16	80	15	75	31	77.5%
Labour	2	10	3	15	5	12.5%
Service	2	10	2	10	4	10%

Group A-In group A, 16 patients were home makers, and 4 patients were working.

Group B-In group B, 15 patients were home makers, and 5 patients were working.

In the study, majority of the women that is 31 (77.5%) were home-makers, 5 (12.5%) were labour and 4 (10%) were service.

Table no. 4: Incidence of socio-economic status (n=40)

Socio-economic status	Group A	%	Group B	%	Total	%
Lower class	2	10%	8	40%	10	25%
Middle class	16	80%	10	50%	26	65%
Upper class	2	10%	2	10%	4	10%

Group A- In Group A, 2 patients were from lower class, 16 patients were from middle class and 2 patients were from upper class.

Group B- In Group B, 8 patients are from lower class, 10 patients are from middle class, and 2 patients were from upper class.

Among 40 patients included in the study, 10 (25%) were from lower class, 26(65%) were from middle class, and 4 (10%) were from upper class.

Table 5: Incidence of dilatation of the cervix at admission (n=40)

Cervical dilatation	Group A	%	Group B	%	Total	%
Closed	0	0	0	0	0	0
1-2 cm	15	75%	20	100%	35	87.5%
3-4 cm	5	25%	0	0	5	12.5%
5 +	0	0	0	0	0	0

Group A- In Group A, 1-2 cm cervical dilatation was found in 15 patients and 3-4 cm cervical dilatation was found in 5 patients.

Group B- In Group B, 1-2 cm cervical dilatation was found in 20 patients.

Among 40 patients included in the study, 1-2 cm cervical dilatation was found in 35 (87.5%), 3-4 cm cervical dilatation was found in 5 (12.5%).

Table 6: Incidence according to effacement of the cervix at admission (n=40)

Effacement	Group A	%	Group B	%	Total	%
0-30%	0	0	1	5%	1	2.5%
40-50%	8	40%	15	75%	23	57.5%
60-70%	12	60%	4	20%	16	40%

Group A- In Group A, 0-30% cervical effacement was not found in any patient, 40-50% cervical effacement was found in 8 patients and 60-70% cervical effacement was found in 12 patients.

Group B- In Group B, 0-30% cervical effacement was found in 1 patient, 40-50% cervical effacement was found in 15 patients and 60-70% cervical effacement was found in 4 patients.

Among 40 patients included in the study, 0-30% cervical effacement was found in 1 (2.5%), 40-50% cervical effacement was found in 23 (57.5%) and 60-70% cervical effacement was found in 16 (40%).

Table 7: Incidence of consistency of cervix at the time of admission (n=40)

Consistency of cervix	Group A	%	Group B	%	Total	%
Soft	20	100%	16	80%	36	90%
Medium	0	0	4	20%	4	10%
Firm	0	0	0	0	0	0

Group A- In Group A, consistency of cervix was found soft in 20 patients.

Group B- In Group B, consistency of cervix was found soft in 16 patients and medium in 4 patients.

Among 40 patients included in the study, consistency of cervix was found soft in 36 (90%) and medium in 4 (10%).

Table 8: Incidence according to position of the cervix at admission (n=40)

Position of cervix	Group A	%	Group B	%	Total	%
Posterior	0	0	4	20%	4	10%
Midline	16	80%	12	60%	28	70%
Anterior	4	20%	4	20%	8	30%

Group A- In Group A, position of cervix was found midline in 16 patients and anterior in 4 patients.

Group B- In Group B, position of cervix was found posterior in 4 patients, midline in 12 patients and anterior in 4 patients.

Among 40 patients included in the study, position of cervix was found posterior in 4 (10%), midline in 28(70%) and anterior in 8(30%).

Table 9: Incidence according to station of head at admission (n=40)

Station of head	Group A	%	Group B	%	Total	%
-3	0	0	0	0	0	0
-2	6	30%	14	70%	20	50%
-1	14	70%	6	30%	20	50%
0	0	0	0	0	0	0
1	0	0	0	0	0	0

Group A- In Group A, station of head was found -2 in 6 patients and -1 in 14 patients.

Group B- In Group B, station of head was found -2 in 14 patients and -1 in 6 patients.

Among 40 patients included in the study, station of head was found -2 in 20(50%) and -1 in 20(50%).

Table 10: Incidence of Bishops's score (n=40)

Score	Group A	%	Group B	%	Total	%
<5 (0-5)	5	25	11	55	16	40
>5 (6-13)	15	75	9	45	24	60

Group A- In Group A, Bishop's score was found <5 in 5 patients and >5 in 15 patients.

Group B- In Group B, Bishop's score was found <5 in 11 patients and >5 in 9 patients.

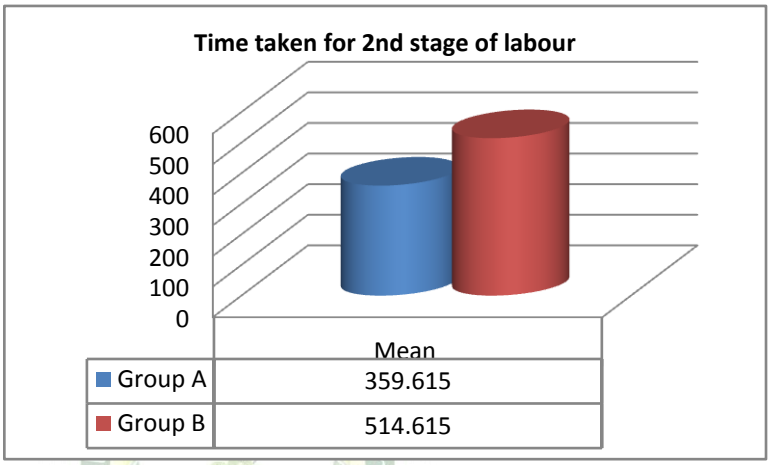
Among 40 patients included in the study, Bishop's score was found <5 in 16(40%) and >5 in 24(60%).

Results

Following results were obtained between A and B group. The analysis was done statistically.

Table 11: Comparison of time taken for first stage of labour in min between the groups (n=40)

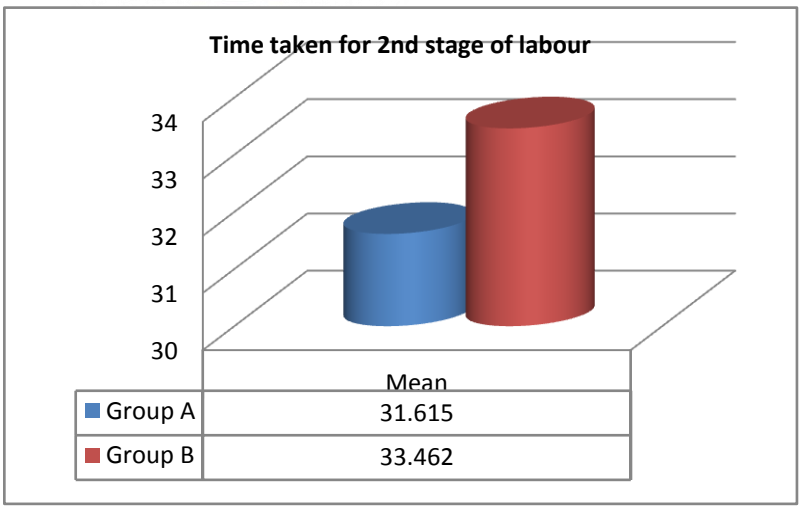
Groups	Mean
Group A	359.615
Group B	514.615



The mean time taken for duration of 1st stage of labour was significantly reduced in Group A i.e. 359.615 min. as compared to Group B i.e. 514.615 min.

Table 12: Comparison of time taken for second stage of labour in min between the groups (n=40)

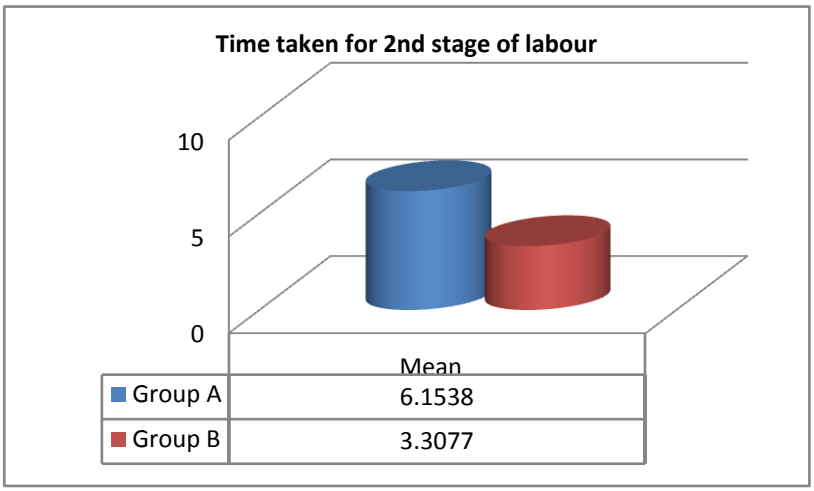
Groups	Mean
Group A	31.615
Group B	33.462



The mean time taken for duration of 2st stage of labour was significantly reduced in Group A i.e. 31.615 min. As compared to Group B i.e. 33.462 min.

Table 13: Comparison of time taken for third stage of labour in min between the groups (n=100)

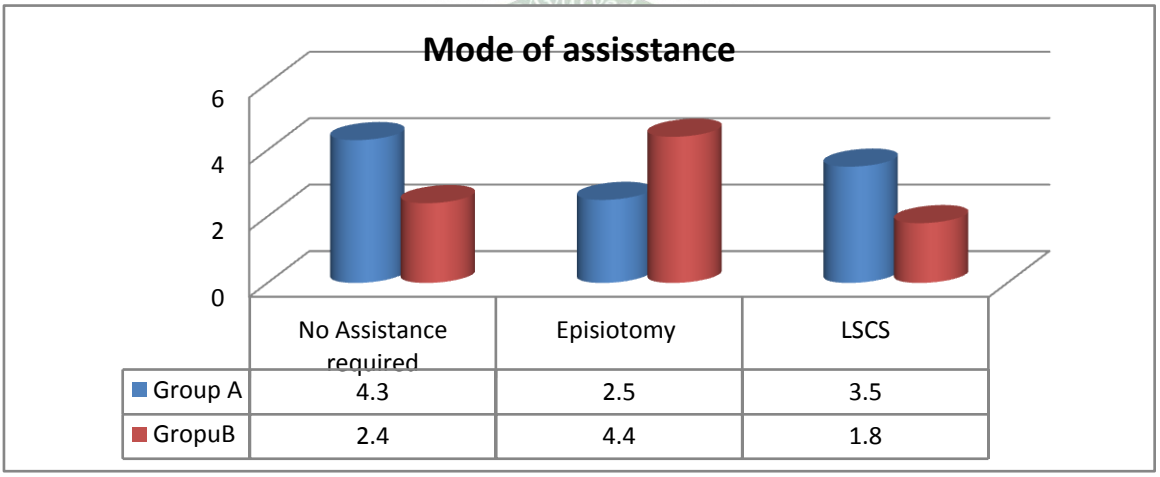
Groups	Mean
Group A	6.1538
Group B	6.3077



The mean time taken for duration of 3st stage of labour was significantly reduced in Group A i.e. 6.1538 min. as compared to Group B i.e. 6.3077 min.

Table 14: Mode of Assistance (n=40)

Mode of assistance	No. of patient			%
	Group A	Group B	Total	
No assistance required	13	5	2	5%
Episiotomy	5	11	32	80%
LSCS	2	4	6	15%



Each Group A and B had 1 patient required no assistance, 15 patients in Group A and 17 patients in Group B required episiotomy and 2 patients in Group A and 4 patients in Group B underwent LSCS.

DISCUSSION

Decline in the normal health of the woman in the present generation is resulting in many traumas. Woman who plays multifaceted activity in her life is neglecting herself. Thereby, the normal physiological functions that usually occur in woman are lacking. That speaks on the normal physiological labour as well. "To prevent the pathological changes that occur during labour' proper antenatal care is essential. Every women wish to have a safe and an uncomplicated delivery with a healthy baby. All the events starting from the initiation of labour, maintenance of uterine contraction till the delivery of foetus and after birth all depends on activities of *Vata*. To keep this *Vata* in optimal state, *Acharyas* have advised to administer *Sneha* in the *Garbhini paricharya*.

Sukumara gritha consists of *Dashamoola* as *Kashaya dravya* –best *Vata shamaka dravyas*. *Trinapanchamoola /(stanya janana)*-like *Darbha, Kusha, Sara, Ikshu, Kasa* acting as *Mootrala* helps in checking physiological pedal oedema. Drugs like *Kshreera Kakoli, Ashwagandha Shatavari,*

Payas –milk, *Guda* have *Brihmana* property – thus provide nutrition to both mother and fetus. *Eranda taila* having *Madhura rasa, Katu, Kashaya Rasa, Ushna veerya* and *Madhura vipaka* is the best *Vata shamaka*, and thus facilitates *Vatanulomana*. Woman experiences certain physiological disturbances like constipation, head ache, back ache, fatigability, pain in the lower limbs. These symptoms are due to the vitiation of *Vata* and for this *Vata anulomana* is necessary (*Apana vayu)*.In the group A the patients had significant relief from these symptoms compared to group B.

The duration of 1st stage of labour was significantly reduced in group A–the mean no of hours-6-7 hours as compared to 9-10 hours in group B. Better cervical ripening and dilation was seen in group A as compared to group B. The 2nd stage was uneventful in most of the patients with no delay, no cervical, vaginal or perineal tears seen. The 3rd stage in both groups had mean placental expulsion time of 5-6 min.

CONCLUSION

With present day increasing incidences of Caesarean section where cervical dystocia is one of the contributing factor, utility of Sukumara Gritha facilitates easy delivery, which may takes place because of good cervical ripening, decreased amount of labour pain experienced by the women as well as shortening of the duration of first stage of labour. *Sukumar Gritha* facilitates easy delivery and prevents the need for Caesarian section.

REFERENCES

1. Vruddha Vagbhata, Astanga samgraha, Sashilekha commentary of Indu, Edited by Shivprasad Sharma, Chowkhanba Sanskrit Series Office, Varanasi, reprint 2008, Shareera sthana 2nd Chapter, Verse 54, pp-965, pg-276.
2. Agnivesha, Caraka Samhita, Ayurvedadipika Commentary by Cakrapanidatta, edited by; Vaidya Yadavji Trikramji Acharya, Chaukhamba Surbharati Prakashan, Varanasi, reprint-2011,Shareera Sthana 8th Chapter, Verse-29, pp- 738, pg -345.
3. Sushruta, Sushruta Samhita, Nibandhasangraha Commentary of Sri Dalhana Acharya, edited by Vaidya Yadavji Trikamji Acharya, Choukhamba Surabharati Prakashan Varanasi, reprint 2010, Shareera sthana 10rd Chapter, Verse 4, pp-824, pg-387.
4. Vagbhata, Astanga Hrudaya, Sarvanga Sundara Commentary of Arunadatta and Ayurveda Rasayana Commentary of Hemadri, edited by; Pandit Hari Sadasiva Sastri Paradakara Bhisagacharya, Chaukhamba Surbharati Prakashan, Varanasi, reprint-2010, Shareera sthana 1st Chapter, Verse-43, pp- 956, pg -370.
5. Saharayoga
6. D.C. Dutta. Textbook of Obstetrics. New Central Book Agency, 6th edition 2004, pp.666, pg no.522
7. D.C. Dutta. Textbook of Obstetrics. New Central Book Agency, 6th edition 2004, pp.666, pg no.589

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