

Effect Of Add-On Vidaryadi Ghrita with Standard Iron and Calcium Therapy in Improving Baby Birth Weight in Garbhini Paricharya: A Parallel Group Randomized Controlled Trial.

Dr. Jeny Mukesh Bhatt¹, Dr. J. N. Daruwale², Dr. P. R. Kanade³, Dr. Hitendra A. Bhadane⁴

¹Assistant Professor, P.G. Guide in Prasuti Tantra Stree Rog department, Y.M.T. Ayurved Medical College, Kharghar and PhD (Sch) at PMT Ayurved Medical College, Shevgaon, Ahmednagar.

²PhD Guide, Associate Professor, Prasuti Tantra Stree Rog department, PMT Ayurved Medical College, Shevgaon, Ahmednagar.

³HOD & Professor, Prasuti Tantra Stree Rog department, PMT Ayurved Medical College, Shevgaon, Ahmednagar.

⁴Associate Professor, P.G. Guide in Panchakarma department, Y.M.T. Ayurved Medical College, Kharghar, Navi Mumbai and PhD (Sch) at LRP Ayurved Medical College, Islampur, Sangli.

Abstract—Ayurvedic antenatal care through Garbhini Paricharya prioritizes fetal nourishment and growth as a foundation for healthy neonatal and lifelong outcomes.

According to World Health Organization data, the median birth weight is reported to be 3.3 kg for male and 3.2 kg for female neonates, signifying that a considerable proportion of infants are born with comparatively lower weights. Ayurveda emphasizes the use of specific nutritional and therapeutic formulations to support fetal development during pregnancy. As described in Ashtanga Hrudaya, Vidaryadi Ghrita, a Snehana-Yukta Rasayana, is indicated for Garbha Vriddhikara (fetal nourishment) owing to its Balya, Bruhana, and Garbhasthapana properties. It is especially recommended from the sixth month of gestation, a critical period characterized by accelerated fetal growth.

OBJECTIVE: To evaluate the effect of add-on Vidaryadi Ghrita with standard Iron and Calcium therapy in improving neonatal birth weight.

TRIAL DESIGN: A parallel-group, randomized controlled clinical trial.

METHODOLOGY: 20 pregnant females in the 6th month of gestation were enrolled and randomized into two groups (n=10 per group). Group 1 received Vidaryadi Ghrita 10 ml twice daily along with routine Iron and Calcium supplementation. Group 2 received only Iron and Calcium supplementation. The intervention continued until delivery. Baby weight was assessed at 7th

month and at birth. Statistical Analysis of data was done. Informed consent was taken.

RESULTS: Neonatal birth weight was significantly higher in Group 1 compared with Group 2. The observed improvement is attributable to the formulation's Balya, Bruhana and Garbhasthapana actions that nourish Meda and Shukra Dhatu, prevents Vata aggravation, contributing to enhanced fetal growth conditions.

CONCLUSION: Add-on Vidaryadi Ghrita with standard antenatal supplementation effectively improves birth weight and demonstrates promise as a safe Ayurvedic intervention within Garbhini Paricharya. Larger, multicentric studies are recommended to further validate efficacy and generalizability.

Index Terms—Vidaryadi Ghrita, Garbhini Paricharya, Baby Birth Weight.

I. INTRODUCTION

Optimal fetal growth is the primary objective of Garbhini Paricharya in Ayurveda, which emphasizes comprehensive antenatal care to ensure the birth of a healthy child. Proper intrauterine growth and development of the fetus are crucial, and therefore meticulous care of the mother during pregnancy is strongly advocated in classical texts. Ayurveda highlights the role of appropriate maternal diet,

lifestyle, and mental well-being in shaping fetal health. Supporting this concept, Professor David Barker, a renowned physician and epidemiologist, proposed the Barker Hypothesis, which states that fetal and early

infant conditions exert a lasting influence on metabolism and predisposition to chronic diseases in later life. This underscores the importance of optimal maternal nutrition during pregnancy.

WHO report for male baby birth weight: The median for male baby weight at birth shows 3.3 kg. Which means 50th percentile of male babies is below 3.3 kg birth weight.

Weight-for-age BOYS Birth to 5 years (z-scores)		World Health Organization						
Year: Month	Months	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
0: 0	0	2.1	2.5	2.9	3.3	3.9	4.4	5.0
0: 1	1	2.9	3.4	3.9	4.5	5.1	5.8	6.6
0: 2	2	3.8	4.3	4.9	5.6	6.3	7.1	8.0
0: 3	3	4.4	5.0	5.7	6.4	7.2	8.0	9.0
0: 4	4	4.9	5.6	6.2	7.0	7.8	8.7	9.7
0: 5	5	5.3	6.0	6.7	7.5	8.4	9.3	10.4
0: 6	6	5.7	6.4	7.1	7.9	8.8	9.8	10.9
0: 7	7	5.9	6.7	7.4	8.3	9.2	10.3	11.4
0: 8	8	6.2	6.9	7.7	8.6	9.6	10.7	11.9
0: 9	9	6.4	7.1	8.0	8.9	9.9	11.0	12.3
0:10	10	6.6	7.4	8.2	9.2	10.2	11.4	12.7
0:11	11	6.8	7.6	8.4	9.4	10.5	11.7	13.0
1: 0	12	6.9	7.7	8.6	9.6	10.8	12.0	13.3
1: 1	13	7.1	7.9	8.8	9.9	11.0	12.3	13.7
1: 2	14	7.2	8.1	9.0	10.1	11.3	12.6	14.0
1: 3	15	7.4	8.3	9.2	10.3	11.5	12.8	14.3
1: 4	16	7.5	8.4	9.4	10.5	11.7	13.1	14.6
1: 5	17	7.7	8.6	9.6	10.7	12.0	13.4	14.9
1: 6	18	7.8	8.8	9.8	10.9	12.2	13.7	15.3
1: 7	19	8.0	8.9	10.0	11.1	12.5	13.9	15.6
1: 8	20	8.1	9.1	10.1	11.3	12.7	14.2	15.9
1: 9	21	8.2	9.2	10.3	11.5	12.9	14.5	16.2
1:10	22	8.4	9.4	10.5	11.8	13.2	14.7	16.5
1:11	23	8.5	9.5	10.7	12.0	13.4	15.0	16.8
2: 0	24	8.6	9.7	10.8	12.2	13.6	15.3	17.1
2: 1	25	8.8	9.8	11.0	12.4	13.9	15.5	17.5
2: 2	26	8.9	10.0	11.2	12.5	14.1	15.8	17.8
2: 3	27	9.0	10.1	11.3	12.7	14.3	16.1	18.1
2: 4	28	9.1	10.2	11.5	12.9	14.5	16.3	18.4
2: 5	29	9.2	10.4	11.7	13.1	14.8	16.6	18.7

WHO report for female baby birth weight- The median for female baby weight at birth shows 3.2 kg. Which means 50th percentile of female babies is below 3.2 kg birth weight.

Weight-for-age GIRLS Birth to 5 years (z-scores)		World Health Organization						
Year: Month	Months	-3 SD	-2 SD	-1 SD	Median	SD	2 SD	3 SD
0: 0	0	2.0	2.4	2.8	3.2	3.7	4.2	4.8
0: 1	1	2.7	3.2	3.6	4.1	4.6	5.5	6.2
0: 2	2	3.4	3.9	4.5	5.1	5.8	6.6	7.5
0: 3	3	4.0	4.5	5.2	5.8	6.6	7.5	8.5
0: 4	4	4.4	5.0	5.7	6.4	7.3	8.2	9.3
0: 5	5	4.8	5.4	6.1	6.9	7.8	8.8	10.0
0: 6	6	5.1	5.7	6.5	7.3	8.2	9.3	10.6
0: 7	7	5.3	6.0	6.8	7.6	8.6	9.8	11.1
0: 8	8	5.6	6.3	7.0	7.9	9.0	10.2	11.6
0: 9	9	5.8	6.5	7.3	8.2	9.3	10.5	12.0
0:10	10	5.9	6.7	7.5	8.5	9.6	10.9	12.4
0:11	11	6.1	6.9	7.7	8.7	9.9	11.2	12.8
1: 0	12	6.3	7.0	7.9	8.9	10.1	11.5	13.1
1: 1	13	6.4	7.2	8.1	9.2	10.4	11.8	13.5
1: 2	14	6.6	7.4	8.3	9.4	10.6	12.1	13.8
1: 3	15	6.7	7.6	8.5	9.6	10.9	12.4	14.1
1: 4	16	6.9	7.7	8.7	9.8	11.1	12.6	14.5
1: 5	17	7.0	7.9	8.9	10.0	11.4	12.9	14.8
1: 6	18	7.2	8.1	9.1	10.2	11.6	13.2	15.1
1: 7	19	7.3	8.2	9.2	10.4	11.8	13.5	15.4
1: 8	20	7.5	8.4	9.4	10.6	12.1	13.7	15.7
1: 9	21	7.6	8.6	9.6	10.9	12.3	14.0	16.0
1:10	22	7.8	8.7	9.8	11.1	12.5	14.3	16.4
1:11	23	7.9	8.9	10.0	11.3	12.8	14.6	16.7
2: 0	24	8.1	9.0	10.2	11.5	13.0	14.8	17.0
2: 1	25	8.2	9.2	10.3	11.7	13.3	15.1	17.3
2: 2	26	8.4	9.4	10.5	11.9	13.5	15.4	17.7
2: 3	27	8.5	9.5	10.7	12.1	13.7	15.7	18.0
2: 4	28	8.6	9.7	10.9	12.3	14.0	16.0	18.3
2: 5	29	8.8	9.8	11.1	12.5	14.2	16.2	18.7

II. NEED OF STUDY

1. Rather than mere supplementation of Iron and Calcium nourishing the pregnant lady with something more which takes care of the all-round development of the fetus including weight gain.
2. WHO reports shows that the median for baby birth weight in male and female baby is 3.3 kg & 3.2 kg respectively. This median can be increased if Ayurvedic Medicine like Vidaryadi Ghrita is taken in pregnancy by the mother. So, such medicine can be a boon to the society.

3. Vidaryadi Ghrita is a Snehana-Yukta Rasayana with Balya, Brumhaniya and Garbhasthapana properties, etc eventually leads to increase in baby birth weight.

III. RESEARCH QUESTION

Is there any effect of Add-on Vidaryadi Ghrita with standard Iron and Calcium therapy in improving Baby Birth Weight in Garbhini Paricharya?

Aim: To assess the clinical efficacy of add on Vidaryadi Ghrita with standard Iron and Calcium therapy in improving baby birth weight in Garbhini Paricharya.

Objective: To study the action of add on Vidaryadi Ghrita with standard Iron and Calcium therapy in improving baby birth weight in Garbhini Paricharya.

Null Hypothesis (H0): There is no effect of add on Vidaryadi Ghrita with standard Iron and Calcium therapy in improving baby birth weight in Garbhini Paricharya.

Alternate Hypothesis (H1): There is significant effect of add on Vidaryadi Ghrita with standard Iron and Calcium therapy in improving baby birth weight in Garbhini Paricharya.

IV. METHODOLOGY

Study Design: Parallel-group Randomized Controlled Trial

Duration Of Study: From 6th month of gestation until delivery

Sample Size: 20 pregnant women (n = 10 per group)
Group 1 (Trial): Vidaryadi Ghrita 10 ml twice daily + Iron & Calcium

Group 2 (Control): Iron & Calcium only
Inclusion Criteria: Pregnant lady in age group 20-35 yrs irrespective of parity

V. EXCLUSION CRITERIA

- 1) Bad obstetric History (Previous abortion or miscarriage)
- 2) H/O and diagnosed PIH, Anemia (less than 8 gm%), Jaundice, DM, T.B., Heart disease
- 3) Obesity, Renal disease, chronic HTN, worm infestations, Asthama, Thyroid dysfunction
- 4) Pregnant with acute pain abd.
- 5) Obstetrical shock, Acute renal failure
- 6) Or any other systemic disease.

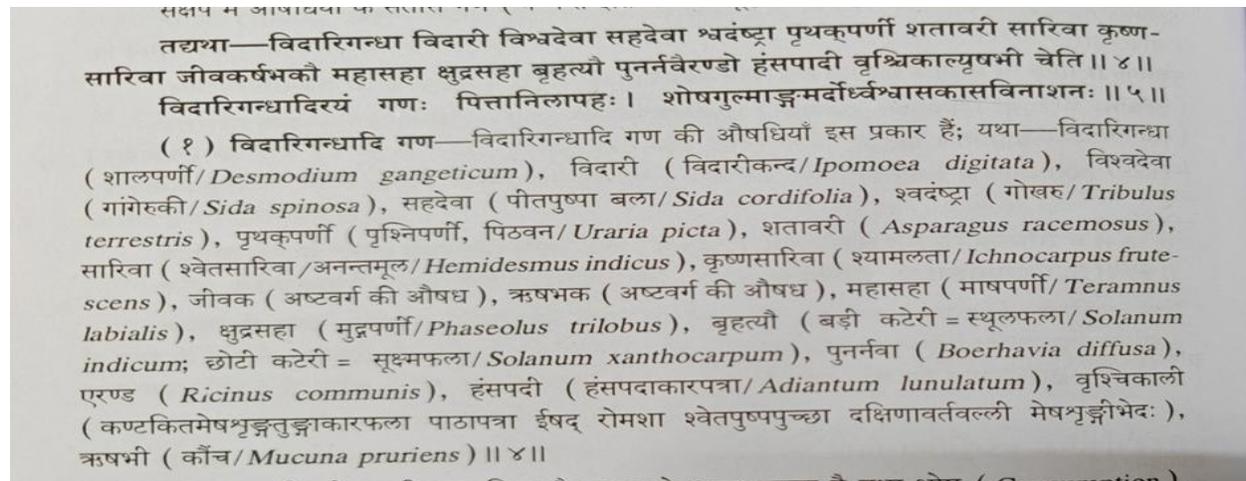
Assessment: Neonatal weight at 7th month and at birth.

VI. MATERIAL & METHODS

The dravyas in Vidaryadi ghrita are namely vidarigandha, vidari, vishvadeva, sahadewa, swadanshtra, shatavari, sariva, krushna sariva, jeevaka, hrushabhaka, mahasaha, shudrasaha, bhruhati dveya, punarnava, erand, hanspadi, vrushchikali, krushabhi.

VII. REFERENCE: VIDARYADI GHRITA

Su. Su. 38/4-5



VIII. METHOD OF PREPARATION OF VIDARYADI GHRITA

1. Take murcchita ghrita of cow measuring 750 ml
2. Then the herbs are added, that are: vidarigandha, vidari, vishvadeva, sahadeva, swadanshtra, shatavari, sariva, krushna sariva, jeevaka, hrushabhaka, mahasaha, shudrasaha, bhruhati dveya, punarava, erand, hanspadi, vrushchikali, krushabhi in 7 gm quantity each.
3. Then add 3 litre of water to it and boil the preparation along with the murcchita ghrita. After that preserve the ghrita into a glass pot chanting the holy Gayatri Hymns.

IX. DOSE OF DRUG

Group 1(Trial)-10 Patients were given Vidaryadi Ghrita 10 ml twice a day after food from 6th month of pregnancy till delivery with regular ANC care on Iron and Calcium.

Group 2(Control): 10 Patients were observed from 6th month of pregnancy till delivery with regular ANC care on Iron and Calcium.

Why to Start Vidaryadi Ghrita from 6th months onwards only?

According to Garbhini Paricharya, Ayurvedic antenatal care follows a systematic month-wise protocol that aligns with fetal development, known as masanu masak garbha vridhhi.

During 1 st to 3 rd month of pregnancy	the emphasis lies on garbha-sthapana & nourishment of the embryo, for which dugdha & madhura rasa predominant dravyas are advised. Also, the Guru-Snigdha nature of ghritas may disturb digestion and early organogenesis.
In 4 th & 5 th month	the development of masa dhatu becomes the primary focus and therefore masa rasa along with continued use of ksheera is recommended.
From 6 th month onwards	objective shifts towards enhancing rasa and meda dhatu, promoting snigdha and preparing the reproductive & pelvic channels for parturition. Vata increases due to uterine expansion thus necessitating Snigdha, Guru and Madhura Rasayana dravyas. During this stage, ghrita-based rasayana preparations such as Vidaryadi Ghrita are especially indicated, supporting both fetal growth and maternal well-being through their nutritive and lubricating properties.

Assessment criteria: Baby Weight measured as per USG at 7th month and finally at birth of baby i.e. baby birth weight. Statistical analysis: Since sample size was smaller non-parametric tests-Mann Whitney U test used for Inter group comparison.

X. OBSERVATION:

	Group	N	Mean	Std. Deviation	Mann-Whitney U value	Z value	p value of Mann-Whitney U test
BABY WEIGHT 7th month baby weight by USG (gms)	1	10	1235.50	94.914	1.000	-3.712	0.000**
	2	10	1074.00	22.808			
BABY WEIGHT Birth weight (gms)	1	10	3442.00	336.809	0.500	-3.746	0.000**
	2	10	2814.00	138.098			

There was a statistically highly significant difference seen for the values between the groups (p<0.01) for Baby Weight 7th month baby weight by USG (gms) with higher values in group 1. Baby Weight Birth weight (gms) with higher values in group 1

XI. CONCLUSION

There was a statistically highly significant difference seen for values between groups(p<0.01) for baby weight with higher values in group 1 than group 2. Add-on Vidaryadi Ghrita improved birth weight effectively.

XII. RESULTS

In group-1, baby birth weight increased with no complications seen in mother. Hence, the Null Hypothesis was Rejected. The Alternate Hypothesis was Accepted.

XIII. MODE OF ACTION

Vidaryadi Ghrita, a classical Ayurvedic formulation composed of Vidarigandhadi group of drugs such as vidarigandha, vidari, vishvadeva, sahadeva, swadanshtra, shatavari, sariva, krushna sariva,

jeevaka, hrushabhaka, mahasaha, shudrasaha, bhruhati dveya, punarnava, erand, hanspadi, vrushchikali, krushabhi primarily acts by pacifying aggravated Vata doṣha. Owing to its snigdha, guru and madhura properties along with ghrita as an effective yogavahi, it enhances dhatu-poshana and improves agni at the tissue level. Through Vata shamana, the formulation supports proper garbhasthapana, promotes balya and bruhaṇa effects, and acts as a rasayana during pregnancy. These actions collectively ensure optimal nourishment of the fetus, resulting in improved fetal growth and healthy baby weight gain.

XIV. REFERENCE FROM PEER REVIEWED JOURNAL



wjpmr, 2021,7(9), 275-277.

WORLD JOURNAL OF PHARMACEUTICAL
AND MEDICAL RESEARCH
www.wjpmr.com

SJIF Impact Factor: 5.922

Review Article
ISSN 2455-3301
WJPMR

SIGNIFICANCE OF RASAYANA DRAVYAS FOR GARBHINI AND GARBHA POSHANA: A REVIEW

Pillewah *et al.*

World Journal of Pharmaceutical and Medical Research

health of baby. Moreover regenerative, immunomodulatory, antioxidant, detoxifying and adaptogenic effects of *Rasayana* contributed towards the health restoration of *Garbhini*. These drugs maintain balances between mind and body, promote homeostasis and stabilize physiological process which is very essential during pregnancy.^[5,8]

The neuro-protective effects prevent psychological depression, haemopoietic effects boost tissue, nutritive effects nourishes body and maintain growth of fetus. *Rasayana* drugs boost up quality of budding embryo. *Rasayana* facilitate *Prinana* of *Sarvadhatu*, provides supplementation to the fetus at early stage, helps to

Rasayana for fetal growth

Rasayana possess *Balya*, *Bruhmana* and *Medhya* effects thus support greatly towards the growth and development of fetus. The nutritional balance maintained by *Rasayana* enhances growth and improves birth weight of child.

Rasayana for fetal immunity

Rasayana improves fetal IgG level thus possess immunomodulatory effect. The maternal immunity improved by *Rasayana* drugs ultimately affects fetal immunity. It is believed that transfer of immunoglobulin to the fetus from mother during pregnancy improves after uses of *Rasayana* drugs.

XV. FURTHER SCOPE OF RESEARCH

REFERENCES

- Effect of Vidaryadi Ghrita on Fetal FL (Femoral Length), AC (Abdominal Circumference), HC (Head Circumference), BPD (Bi-Parietal Diameter).
- Effect of Vidaryadi Ghrita on other characteristics of baby like varnya, kaanti, etc.
- Effect of Vidaryadi Ghrita on pregnant female.

- [1] Vagbhata Ashtangahr̥daya Saṃhita (संपूर्णम्). 6th ed. Tripathi B (ed.). Varanasi: Chaukhambha Sanskrit Series Office; 2017. ISBN 978-8170841258. Available from: <https://chaukhambabooks.co.in/product/Astanga-Hridaya-Sampoorna-kpk14>.

- [2] Sushrut Samhita. Dr. Anant Ram Sharma. Varanasi: Chaukhambha Surbharathi Prakashan, 2023
- [3] Bhavamishra. Bhavaprakasa Nighanṭu (भावप्रकाशनिघंटु). 2nd ed. K.C.Chunekar (ed.). Varanasi: Chaukhambha Bharati Academy; 2015. ISBN 978-8190987202. Available from: <https://www.chaukhambabooks.co.in/product/Bhavaprakash-Nighantu-v62ms>.
- [4] World Health Organization. WHO Child Growth Standards: Birth Weight for Gestational Age. Geneva: WHO; 2020. Available from: <https://www.who.int/data/nutrition/nlis/info/low-birth-weight>.
- [5] de Onis M, Martorell R, Garza C, et al. WHO Child Growth Standards based on length/height, weight and age. Acta Paediatr. 2006;95(Supl 451):76-85. doi:10.1080/08035320500495548.