



Research Article

www.ijrap.net

(ISSN Online:2229-3566, ISSN Print:2277-4343)



THE STUDY ON THE EFFICACY AND OUTCOME OF CHARAKOKTA GARBHINI PARICHARYA IN THE FIRST TRIMESTER OF PREGNANCY

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Received on: 30/06/22 Accepted on: 05/08/22

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DOI: 10.7897/2277-4343.1305126

ABSTRACT

Pregnancy is the most essential and critical part of every woman's life. Garbhini paricharya is nothing, but the care given to women during their pregnancy, mainly through ahara, vihara and vichara. So systematic examination, dietary and other advice are critical; this systematic supervision is called garbhini paricharya (Antenatal care). In Ayurveda, food is considered the best source of nourishment and medication for a pregnant woman. Ayurveda is described as month-wise Paricharya that helps in the development of the foetus and healthy growth and gives health and care to the mother. In Ayurveda, food is considered the best source of nourishment and medication for pregnant women. The main intention of advising garbhini paricharya is paripurnatya (providing growth of mother and foetus), anupaghata (pregnancy without complications), and sukhaprasava (for a healthy delivery and healthy child). The ancient Ayurvedic literature described in various Samhita; is not unique but also scientific as modern medical sciences. So antenatal care should be integrated, i.e., as per modern science and as described in Ayurveda. In this study, we took patients into two groups, Group A (Trial Group-30 patients) and Group B (Control Group- 30 patients) and gave them Ayurvedic garbhini paricharya in group A and folic acid supplement in group B. After the study, it is found that the incidence of first trimester ailments like fatigue, nausea, vomiting, and constipation shows a statistically significant advantage over the control group.

Keywords: Ayurveda, garbhini paricharya, Ahara

INTRODUCTION

Antenatal care is very important for the mother and foetus. Ayurveda described it as a necessity for healthy motherhood and healthy progeny¹. Garbhini paricharya includes month wise regimen for pregnant women. It improves the health of a pregnant woman and delivers a healthy baby in time. Pregnancy is one of the most important events in the life of every woman^{2,3}. Ayurveda suggested a perfect protocol for that, which is called garbhini paricharya. Diet is the most critical component of garbhini paricharya. It ultimately results in foetal growth, good maternal health, and postnatal lactation. This care is essential to prevent or detect medical and obstetrical complications immediately. It also gives psychological support to the patient so that she finds herself confident throughout pregnancy.⁴ Ayurveda describes safe motherhood. This great science compares conception to the germination and sprouting of a seed and its transformation into a sapling and advises special attention to the nutrition and protection of the woman. Due to the change in lifestyle and stress on pregnant women, there is a need to re-establish hidden advantages in garbhini paricharya of Ayurvedic science. The First three months of foetal life are very crucial for the future development of the foetus.

Presently available modern antenatal management can only give a guideline on regular supplements, lifestyle etc., during pregnancy. As per Ayurveda text, garbhini paricharya can offer a better alternative to promote healthy progeny and uneventful antenatal and postnatal periods. The main aim of antenatal care is "to bring healthy offspring" into society. Foetal growth and

development depend upon the mother. Foetal risks can be avoided or prevented through the best maternal care. Aahara (nutrition) plays a vital role in the embryo's development. In ancient texts of Ayurveda, a month-wise dietary regimen is mentioned for pregnant women. In modern life, the incidence of gestational complications has increased due to changes in food habits and lifestyle. Due to the change in lifestyle and stress on a pregnant woman, there is a need to re-establish hidden advantages in the garbhini paricharya of Ayurvedic science.

Primary Objective: To study the efficacy and outcome of Charakokta garbhini paricharya in the first trimester of pregnancy. (Till the end of 16 weeks as per modern texts)^{5,6}.

Secondary Objectives

1. To study garbhini paricharya and ANC in detail.
2. To observe the added advantages of garbhini paricharya over routine ANC
3. To observe the study's role in reducing the incidence of first-trimester ailments.
4. To maintain the good health of the mother.
5. To study the role of Charakokta garbhini paricharya in preventing complications like first-trimester abortions.

MATERIALS AND METHODS

1. Godugdha:60 0 ml
2. Khajoor: 20 gm
3. Goghrita: 20 ml
4. Madhu: 10 ml

5. Tablet Folic Acid :5 mg
6. Stethoscope
7. Sphygmomanometer
8. Weighing machine

Randomized open controlled clinical study of 60 first trimester gestational patients divided into two groups.
 Group A: Trial Group with 30 patients
 Group B: Control group with 30 patients
 Ahara – Vihara Pathyapathya was advised equally for both the groups.

Month	Trial Group (A)	Control Group (B)
>6 weeks - 8 weeks	600 ml Godugdha in 4 servings daily + Tab Folic acid 5mg OD + Satmya bhojana	1. Routine first trimester ANC 2. Balanced nutritious, light and easily digestible diet.
8 weeks - 12 weeks	20 gm Khajoor boiled with 600ml Godugdha in 4 servings daily + Tab Folic acid 5 mg OD + Satmya Bhojana	3. 2 servings of dairy products milk, yoghurt, and cheese as per the food guide pyramid) daily + Tab. Folic acid 5 mg OD
12 weeks - 16 weeks	20 ml Goghrita + 10 ml Madhu + Godugdha in 4 servings daily + Tab Folic acid	

1 Serving= 150 ml

Satmya bhojana- 1 Bhakari/ 2 chapati/1 cup rice/ daal/ curd/ vegetables/ buttermilk.

Inclusion criteria

1. Married women with confirmed pregnancy of not more than six weeks
2. No H/O recurrent miscarriages
3. Age group 20- 35 years
4. Hb % - 9 gm/dl and above
5. Primigravida

Exclusion Criteria

1. All multigravida
2. Known history of Major systemic illness
3. Patient with hyperemesis
4. K/C/O essential hypertension

Discontinuation criteria

1. Not coming for regular follow up
2. Not willing to the continuation of treatment
3. Any development of sudden complications like bleeding P/V or pain in the abdomen, Hb % dropping < 9 gm/dl, presence of albumin, pus cells and sugar in the urine.

Criteria for assessment

Subjective

Fatigue

Grade – 0- No

Grade – 1 – Relives on rest – Mild

Grade – 2 – Not reliving on rest – Moderate

Grade – 3 – Unable to do work

Morning Sickness / Nausea

Grade – 0 – No

Grade – 1 – Relieves after getting up from bed – Mild

Grade – 2 - Persists for > 3 -4 – Moderate

Grade – 3 – Persists throughout the day and effecting intake – Severe

Vomiting

Grade – 0 – No

Grade – 1 - 3 – 4 Episodes – mild

Grade - 2 - >4 episodes – moderate

Grade - 3 – Not retaining anything – Severe

Constipation

Grade – 0 – No

Grade – 1 – Incomplete evacuation but no hard stool – mild

Grade – 2 – Hard stool but no P/R bleeding – Moderate

Grade – 3- Severe hard stool leading to P/R bleeding- severe

Objective

Weight

Grade – 0 – Decrease 0.5 – 1 kg

Grade – 1 – No change

Grade – 2 – Increase 0.5 – 1 kg

Blood Pressure Systolic

Grade – 0 – Not increased

Grade – 1 - >5 mm of Hg

Grade – 2 - > 10 – 15 mm of hg

Grade – 3- > 15 mm of hg

Blood Pressure Diastolic

Grade – 0 – Not increased

Grade – 1 - >5 mm of hg

Grade - 2 > 10 – 15 mm of hg

Grade – 3 - > 15 mm of hg

Haemoglobin Percentage

Grade - 0 – Decrease 0.5 – 1 gm/dl

Grade – 1 – No change

Grade – 2 – Increase 0.5 – 1 gm/dl

Albumin In Urine

Grade – 0 – Absent

Grade – 1 – Present

Pus cells in Urine

Grade – 0 – Absent

Grade – 1 – present

Sugar in Urine

Grade – 0 – Absent

Grade – 1 – Present

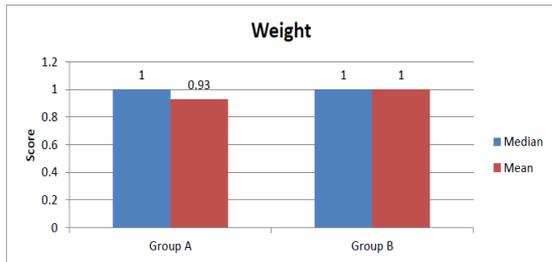
The study is carried out per the International Harmonization-Good Clinical Practices Guidelines [ICH-GCP] or the Declaration of Helsinki guidelines. The study is approved by IEC 2013. Animal ethical clearance number is Peyack/628/26/2013, dated 28/8/2013.

OBSERVATION AND RESULTS

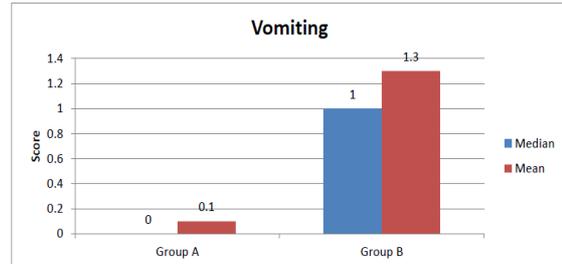
As grading for some parameters was ordinal, the “Wilcoxon Rank sum test” was applied to compare two groups. For dichotomous variables, “The Pearson Chi-squared test” was applied. The hypothesis for each parameter was tested, and the result was interpreted accordingly.

Fatigue	Sample size	Median score	Mean Score	Diff	Wilcoxon Rank Sum statistic	p Value
Group A	30	0	0.23	1.54		< 0.001
Group B	30	2	1.77			

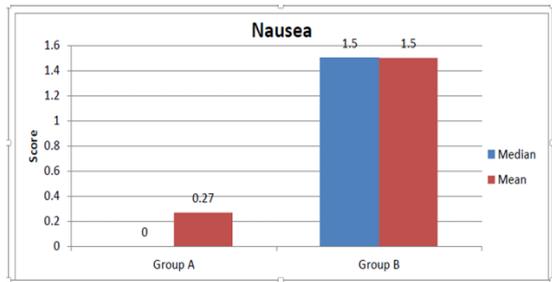
Group A (Trial group) can be considered more effective with Fatigue as compared to Group B (Control group)



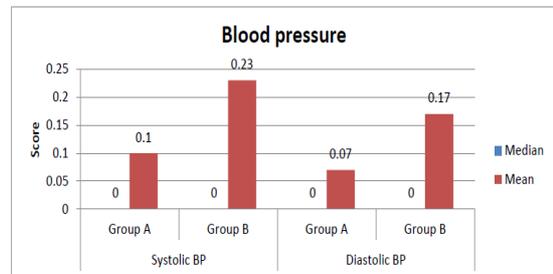
Graph 1: Distribution of weight for Group A and Group B



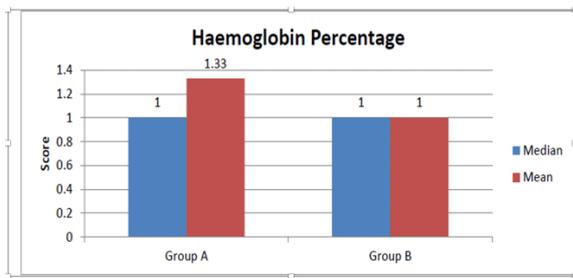
Graph 2: Distribution of vomiting weight for Group A and Group B



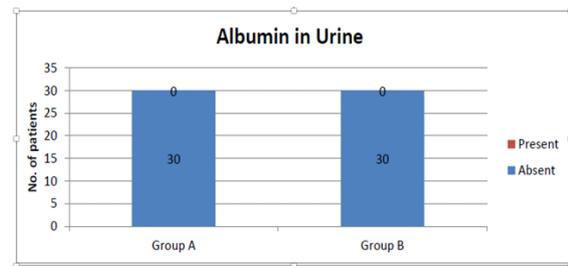
Graph 3: Distribution of nausea weight for Group A and Group B



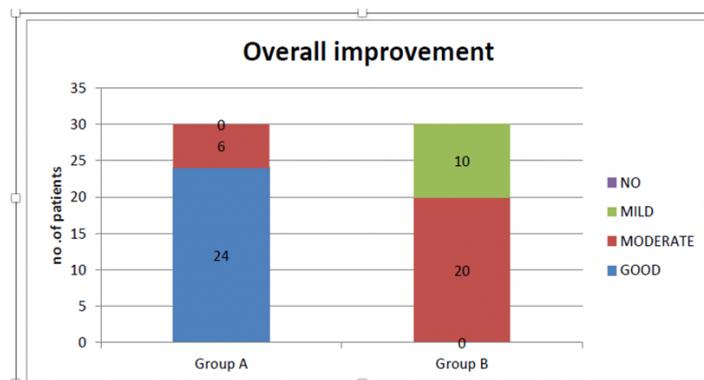
Graph 3: Distribution of Blood pressure weight for Group A and Group B



Graph 4: Distribution of Haemoglobin percentage weight for Group A and Group B



Graph 5: Distribution of Albumin in urine weight for Group A and Group B



Graph 6: Overall improvement in Group A and Group B

Improvement in signs and symptoms

Signs and symptoms	Comparative effectiveness
Fatigue	Group A
Nausea	Group A
Vomiting	Group A
Constipation	Group A
Weight	No significant gain or reduction
Systolic BP	No significant increase or decrease
Diastolic BP	No significant increase or decrease
Haemoglobin	Group A
Albumin in Urine	No presence of albumin in both the groups
Pus cells in Urine	Significant presence/ increase of pus cells not seen in both groups
Sugar in Urine	Pus cells not seen in both groups. No presence of sugar in both the

DISCUSSION

60 Patients were registered which 30 patients were taken under group A (Trial group), and 30 were taken under group B (control group). According to the age group, i.e., 86.66% were found in the age group between 20 – 25 years, only 13.33% of patients above 26 years of age. According to occupation, in group A, 73.33% of patients were homemakers, 20% were servicewomen, and 6.67% were farmers. In group B, 63.33% were homemakers, 33.33% were servicewomen, and the remaining 3.33% were farmers. Socio-economic status 87% belongs to the middle class. In both groups by built, 57% of patients average built, and 13% had well built. Considering the height and weight, all patients fall under an average body mass index (BMI)^{7,8}.

Charakokta garbhini paricharya of the trial group found statistically significant and clinically more effective on the subjective parameters of assessment, fatigue, nausea, vomiting, and constipation; the objective parameter is Haemoglobin percentage in Group A found more significant statistically compared to Group B.

Weight, Blood pressure – No significant difference was noticed. Pus cells in the urine, Sugar in Urine- No considerable presence in both groups.

Mode of action of drugs

To assess the efficacy and outcome of Charakokta garbhini paricharya, subjective and objective criteria were considered. Ayurveda is a science that goes on tridosha theory.⁹⁻¹¹ vitiation of tridoshas results in disease. Particularly in pregnancy and the puerperal period, vata is the dosha that must be considered.

Pregnancy is one of the most critical events in every woman's life, and Ayurveda suggested a perfect protocol for that called garbhini paricharya. Diet is the essential component of garbhini paricharya. It ultimately results in foetal growth, maternal health and post-delivery lactation.¹²⁻¹⁴

Ayurveda describes “safe motherhood”. This great science compares conception to the germination and sprouting of a seed and its transformation into a sapling and advice special attention to the nutrition and protection of the woman.^{15,16}

“Dhruvam, chaturnam, sannidhyat, garbhahasyad,
vidhipurvakam||
Rutu, kshetrambu, beejanam, samagryadankuro, yadha”||
(Su. Sa)

The advice to use milk constantly for nine months, particularly the first three months, indicates the emphasis on supplementing

the essential nutrients. Milk is considered the best jeevaneeya dravya per Ayurveda, i.e., which is necessary for life.^{17,18}

Milk has the property of antacid and mild laxatives to combat common ailments during the first trimester, like constipation and heartburn.¹⁹⁻²¹ During the first trimester of pregnancy, the foetus is in a formative stage. During this stage, the embryo is nourished by a process called upasnehan (percolation).²² Therefore more liquid diet as per Sushruta is advised. The milk medicated by drugs such as shatavari (*Asparagus racemosus*) and vidari (*Pueraria tuberosa*) acts as saver of pregnancy (prajasthapana). It is a high-biological protein because it contains nine essential amino acids. It nourishes the body of the mother as well as helps in the linear growth of the foetus. As per Ayurvedic concept jivaniya and rasayana which gives rasa dhatu poshan. Milk has a well-known property of antacid along with vata – pitta shaman. Milk has a laxative property which combats constipation.²³ The use of butter and ghee is also justifiable as fats are essential for the absorption of vitamins A, D, E etc. recent studies proved the consumption of pure ghee could check various diseases. Using a cold and liquid diet and milk prevents dehydration during the first trimester, as most women experience nausea and vomiting, hampering the intake.²⁴ Madhura indicates that substances rich in glucose content help to reduce vomiting. Sushruta even says that milk has got the property of preventing abortions.

Kharjoora: Have properties of vata pitta shaman
Goghrita; Has properties of vata pitta shaman, laxative
Madhu: Have properties of Kapha shaman

CONCLUSION

The study aims to study the efficacy and outcome of Charakokta garbhini paricharya in the first three months of pregnancy. The objective of garbhini paricharya and ANC in detail was studied, which is included in the literary review. The goal is to observe the added advantage of garbhini paricharya over routine ANC, which achieved 80% regarding all the objective and subjective parameters.

The incidence of first trimester ailments like fatigue, nausea, vomiting and constipation shows a statistically significant advantage over the control group. In both groups, no patient has developed complications like threatened abortion. The protocol Charakokta garbhini paricharya consists of godugdha, kharjoora, goghrita and madhu, which proved to have a statistically significant effect over the control group supplemented only with folic acid. The routine complaints of the first trimester of pregnancy, like fatigue, nausea, vomiting constipation, if not managed, will affect the quality of life of pregnant women, which

was observed in the control group. Working well during the first trimester ailments makes the joy of the pregnant woman complete, which was observed clinically and statistically with a significant advantage over the control group .as the first trimester is not the only end of the pregnancy garbhini paricharya needs to be carried till the onset of labour which can give a better conclusion regarding the effect of the outcome of garbhini paricharya during antenatal care.

This small study gives encouraging results and those a light for future research with a nine-month protocol and a larger sample size. It can be concluded that Charakokta garbhini paricharya is clinically and statistically effective.

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Cite this article as:

Patil Ashwini Ravindra and Turlapati Vishala. The study on the efficacy and outcome of Charakokta garbhini paricharya in the first trimester of pregnancy. Int. J. Res. Ayurveda Pharm. 2022;13(5):70-74 <http://dx.doi.org/10.7897/2277-4343.1305126>

Source of support: Nil, Conflict of interest: None Declared

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