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Clinical Study to Evaluate the Efficacy of Kukkutanda Ksheera Basti in Garbhashosha

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ABSTRACT

Previously in relation to the condition of IUGR, many studies have been done by correlating with the condition Upavishtaka, mentioned in classics but this study is conducted by taking the condition of Garbhashosha in relation to both Oligohydramnios and IUGR.

In the above said conditions, the studies were conducted by using Brimhana and Vatahara drugs orally but in this study, Brimhana and Vatahara drugs are administered through Basti.

Objectives:

- To study in detail about Garbhashosha w.r.t modern co-relations.
- To evaluate the efficacy of Kukkutanda Ksheera Basti in Garbhashosha with respect to Oligohydramnios and IUGR.

Methods: 30 patients who are having Garbhashosha are randomly selected for the study. To them Kukkutanda Ksheera Basti is given for 7 days and follow up is taken on 8th and 22nd day. The matra of Kukkutanda Ksheera Basti was 80 ml. After taking follow ups the results are statistically analyzed by using paired t test.

Results: Among the 30 patients included in the study, 27 patients have completed the study and 3 patients did not attend the second follow up because they have delivered before the date of second follow up.

The given drug shown good results in all the Objective parameters such as Maternal weight gain, Per Abdomen assessment, Symphysis Fundal Height, Abdominal Girth, Amniotic Fluid Index and Estimated Fetal Weight with statistically significant P-values.

Comparing the parameters of Oligohydramnios and IUGR, the parameters of IUGR shown good results. The main outcome of this study can be assessed by the Estimated Fetal Weight parameter which shown very good results with highly significant P-values.

Conclusion: Depending on the results of all parameters, the hypothesis H1 can be accepted i.e.

H1: There is significant effect of Kukkutanda Ksheera Basti in Garbhashosha.

Keywords: Garbhashosha, Oligohydramnios, IUGR, Kukkutanda Ksheera Basti, Estimated Fetal Weight.

INTRODUCTION

Pregnancy is a condition which needs utmost care for both mother and fetus. Due to improper care and irregular antenatal checkups, the pregnant woman may end up with some complications. Among such, here this study is going to deal with a condition known as **Garbhashosha.**

References regarding garbhashosha are available in almost all classical texts, but when we consider

acharya Charaka's reference, it is mentioned that, [1.1] "when the vataprakopa takes place in garbhashaya, it leads to shushkata of garbha and shushkata of garbhastha shishu" So in contemporary medicine, we can correlate the garbhashosha with 2 conditions i.e.

1) Shushkata of garbha to **Oligohydramnios**
2) Shushkata of garbhastha shishu to **Intrauterine growth restriction (IUGR)**

Hence in this study, both the conditions are included which are inter-related with each other.

Amniotic fluid acts as a shock absorber, protecting the fetus from injury, maintains an even temperature around the fetus, allows for growth and free movements of the fetus and it has many other benefits. Due to certain causes, there may be chances of decrease of amniotic fluid leading to a condition known as Oligohydramnios. [20.8]Its overall incidence is about 4.5%. This condition leads to complications for both mother and fetus during pregnancy and labour. So, it is necessary to maintain the normal volume of amniotic fluid.

Proper growth of the fetus inside the mother's womb is very much needed but due to certain causes, there may be growth restriction leading to a condition known as IUGR. [13.3]Its overall incidence is about 2-8%. In such condition, it is quite necessary to increase the growth of the fetus.

In the treatment of garbhashosha, here taking the reference of Chakradatta i.e. [9] "use of aamagarbha is always beneficial in garbhashosha". Aamagarbha refers to anda, so kukkutanda is taken here. Kashyapa mentioned in kalpasthana that [5.1]"by the use of dugdha, garbha becomes pushtha and attains dridhata". And according to Charaka as there is vataprakopa in garbhashosha, [1.4]basti is choosen for the administration of drug. Hence [1.5]Anuktayoga basti i.e. Kukkutanda Ksheera Basti is taken for the study.

When the egg is taken internally by the woman, after its digestion, through the circulation, don't know how much it reaches to the fetus. So here I am making an attempt to know the effect of natural nutrients i.e. egg and milk when administered through basti. Egg and milk both are easily available and economic also. Usually in the treatment of Oligohydramnios and IUGR, amino acids are given which costs about 200 to 400 rupees per day. But the use of egg and milk is very much cost effective. So, the following mentioned topic is taken for the study.

"Clinical Study to Evaluate the Efficacy of Kukkutanda Ksheera Basti in Garbhashosha"

OBJECTIVES OF STUDY

1. To study in detail about Garbhashosha w.r.t modern co-relations.
2. To evaluate the efficacy of Kukkutanda Ksheera Basti in Garbhashosha with respect to Oligohydramnios and IUGR.

REVIEW OF LITERATURE

Description regarding garbhashosha and its chikitsa is available in all most all classical texts.

Charaka Samhita: Garbhashayagata vata - chikitsasthana, 28th chapter.

Sushruta Samhita: Shareerasthana, 10th chapter.

Ashtanga Sangraha: Garbhashosha - shareerasthana, 2nd chapter and its chikitsa - chikitsasthana, 23rd chapter.

Ashtanga Hridaya: Garbhagata vayu - chikitsasthana, 21st chapter.

Bhavaprakash: Vatashushka garbha - madhyamakhanda, 70th chapter.

Yogaratnakara: Uttarardha, streegarbha chikitsa.
Bhaishajya Ratnavali: 68th chapter.
Chakadatta: Streeroga chikitsa.
Ayurvediya Prasootitantra evam Streeroga by Premavati Tewari: Prathamabhaga, 7th chapter.
In contemporary medicine, description regarding Amniotic fluid, Oligohydramnios and Intrauterine growth restriction (IUGR) is available in
Text book of Obstetrics by D C Dutta: Amniotic fluid - 3rd chapter.
Oligohydramnios - 16th chapter.
IUGR - 31st chapter.
Obstetrics by Williams: Oligohydramnios - 22nd chapter.
Fetal growth retardation: 36th chapter.
Prasootitantra - I, A text book of Obstetrics by Prof V N K Usha:
Garbhodaka (Amniotic fluid) - section 3, 22nd chapter.
Garbhodaka vikruti - 2 (Oligohydramnios) - section 3, 24th chapter
Intrauterine growth retardation - section 4, 18th chapter.

DRUG REVIEW

DRUG: [20.13] A drug is a chemical substance used to treat, cure, prevent or diagnose a disease or to promote well-being. Traditionally drugs were obtained through extraction from medicinal plants, but more recently also by organic synthesis.
Drug i.e. 'Dravya' is one among the Chikitsa Chatushpada and has been given importance next to the Bheshaja. Charaka says that there is no any substance in the world which may not be used as medicine, only it depends on the Yukti of the Vaidya.
So, in the treatment of garbhashosha, here the reference of Chakradatta i.e.
[9] "use of aamagarbha is always beneficial in garbhashosha" is taken for the study.

गभमशोषे त्वामगभाम: प्रसहाश्च सदा वहता: ॥१२॥ -चक्र-स्त्री-च

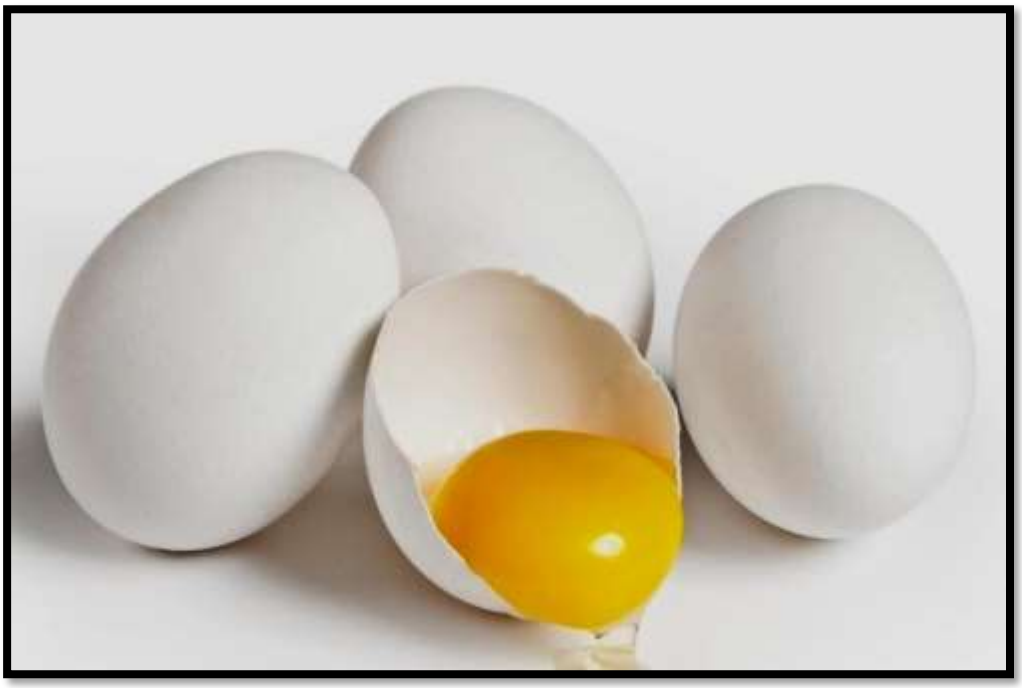
गभमथत्वामगभेण ॥ - च-शा-६/१०

Charaka says that by the sevana of Aamagarbha, garbhavruddhi takes place. Aamagarbha refers to anda , so kukkutanda is taken here.
Kashyapa mentioned in kalpasthana that [5.1]"by the use of dugdha, garbha becomes pushtha and attains dridhata".

यथया न ववबमते च ॥८४॥

पुर्विदमदत्वं लभते च गभो ॥८७॥ -का.सं.कल्प.७

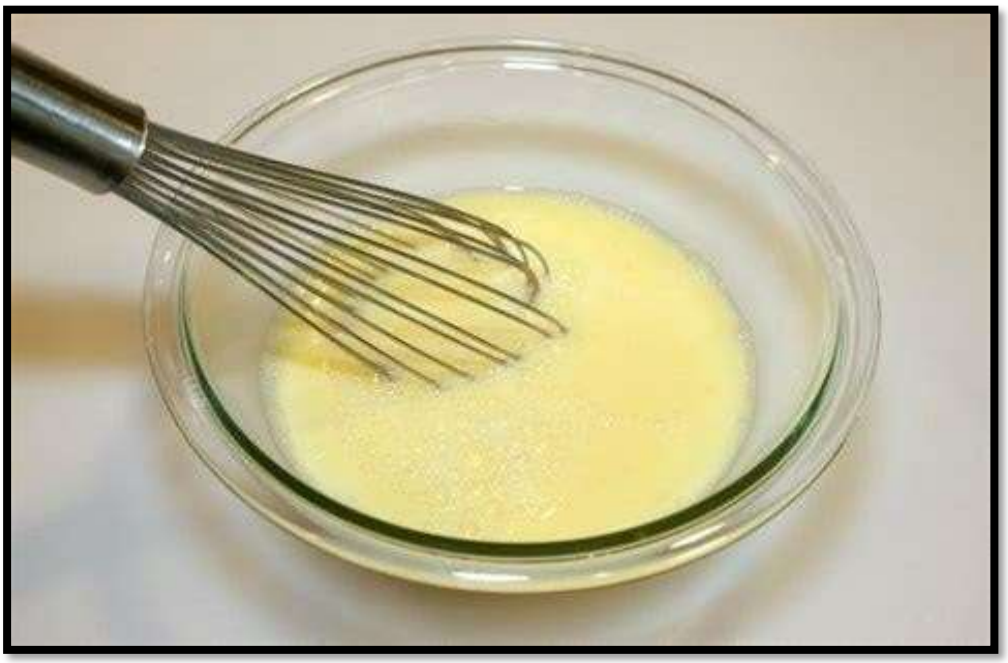
So, in this study for the treatment of Garbhashosha, the mixture of Kukkutanda and Ksheera is used. 1 completely thin beaten raw egg (kukkutanda)
approximately measures 50 ml, is mixed with 30 ml boiled and cooled cow's milk (godugdha) which is administered through the Basti i.e. **Kukkutanda Ksheera Basti. Matra:** 50 ml (egg) + 30 ml (milk) = 80 ml
Administration: Through Basti (Anukta yoga basti)
Duration of Basti: [1.6]For 7 days



EGG (KUKKUTANDA)

MILK (KSHEERA)

POURING OF WARM MILK INTO BEATEN EGG



PREPARED DRUG (BEATEN MIXTURE OF MILK AND EGG)

METHODOLOGY

AIMS AND OBJECTIVES OF STUDY

- To study in detail about Garbhashosha w.r.t modern co-relations.
- To evaluate the efficacy of Kukkutanda Ksheera Basti in Garbhashosha with respect to Oligohydramnios and IUGR.

HYPOTHESIS

H0 - There is no effect of Kukkutanda Ksheera Basti in Garbhashosha**.**

H1- There is significant effect of Kukkutanda Ksheera Basti in Garbhashosha**.**

MATERIALS

1. **LITERARY SOURCE:**
   - Classical texts of Ayurveda
   - Reference books of Contemporary medicine
   - Recent reputed journals
   - Magazines
   - Internet
2. **DRUG SOURCE:** Kukkutanda Ksheera Basti
   - **Kukkutanda (Egg) :** Fresh, non-contaminated and unbroken raw eggs are taken from the poultry.
   - **Ksheera (Milk) :** Cow's milk is collected freshly. The boiled and cooled milk is used.
3. **SAMPLE SOURCE:**

30 patients were selected from OPD and IPD of department of Prasootitantra and Streeroga, Shri Veer Pulikeshi Rural Ayurvedic Medical College, Hospital & Research Center, Badami.

4. **INSTRUMENTS:**
   - Weighing Machine
   - Measuring Tape (to measure SFH and Abdominal Girth)
   - Table for Basti purpose
   - Steel bowl
   - Cotton ball
   - Sponge holding forceps
   - Disposable Enema syringe
   - Rubber catheter
   - A pair of disposable gloves

METHODS

1. Method of selection of cases.
2. Method of preparation of drug and its administration.
3. Method of measuring Symphysis Fundal Height (SFH).
4. Method of measuring Abdominal Girth.
5. Method of Statistical Analysis.
6. Method of assessment of results.

1. METHOD OF SELECTION OF CASES

Number of patients: 30 patients were included in the study for clinical trial.

Selection of cases:

- The patients with signs of Oligohydramnios and / or IUGR between 28 to 37 weeks were taken for the study.
- Thorough clinical examination was done prior to selection by measuring the Symphysis Fundal Height (SFH) and Abdominal Girth.

- Proper and thorough systemic examination was done to exclude patients with severe systemic diseases.
- Finally confirmed cases of Oligohydramnios and / or IUGR with USG and only those who are fulfilling below mentioned inclusion criteria were taken for the study.

Sample procedure: Simple random sampling method.

Diagnostic Criteria:

For Oligohydramnios - On examination through USG, when the maximum vertical pocket of liquor is less than or equal to 2 cm or when Amniotic fluid index (AFI) is less than or equal to 8 cm from 28 to 37 wks of pregnancy.

For IUGR -

1. If there is less weight gain in the mother.
2. If the fundal height of the mother is not corresponding to the gestational age.
3. If the weight of the fetus is below the tenth percentile of the average gestational age when diagnosed through USG.

Inclusion criteria:

1. Single live intra-uterine gestation from 28 to 37 wks.
2. Primigravida
3. Multigravida
4. Pregnant woman fulfilling the diagnostic criteria of above mentioned Olgohydramnios and / or IUGR.

Exclusion Criteria:

1. Who is not willing to take treatment.
2. Who is having known allergy to egg.
3. Who are contra-indicated for Basti.
4. Fetal anomaly
5. Chorioamnionitis
6. Severe anaemia (less than 7 gm%)
7. Per vaginal leaking
8. Acute Oligohydramnios due to fever, loose stools.
9. Chronic infections like Tuberculosis, HIV, Hepatitis B, TORCH.
10. High risk pregnancy with conditions like Hypertension, Pre-eclampsia and Diabetes.

2. METHOD OF PREPARATION OF DRUG AND ITS ADMINISTRATION

Method of preparation of drug:

One completely thin beaten raw egg (kukkutanda) approximately measures 50 ml, is mixed with 30 ml boiled and cooled cow's milk (godugdha) i.e.50 ml + 30 ml = 80 ml

Method of Administration: Through Basti

PROCEDURE OF BASTI:

Poorva karma:

- Prior to poorva karma, patient is asked to take only a glass of milk before coming for Basti.
- Patient is advised to attend natural urges.
- The patients were subjected to local Abhyanga and Mrudu swedana (local fomentation) prior to administration of Basti.

Pradhana karma:

- The mixture of Kukkutanda Ksheera is taken in disposable syringe (modified basti yantra) and kept

ready for administration without air bubbles.

- Now, the patient is advised to take left lateral position with left limb straight and right limb flexed at both knee and hip on the table.
- When the pregnant lady is obese and due to gravid uterus, if she is unable to take left lateral position, then knee chest position (Nyubja) is adopted.
- Then, anal area is cleaned with a sterile swab and then smeared with oil.
- Now, the drug in the syringe is slowly pushed into the anal canal by connecting through a rubber catheter.

Paschat karma:

- After the administration of Basti, the patient was advised to lie in the supine position with the arms and legs spread out freely over the table.
- Both legs were raised for few minutes so as to raise the waist and gently tapped over the hips.
- Simultaneously, gentle taps were also given on her soles and palms so that the Basti could spread throughout the body and be retained for the required period.
- Also, gentle massage is given over the abdomen in the reverse direction (pratiloma) for 2-3 min.
- After sometime the patient was advised to get up from the table and advised to avoid the sleep during day time.
- Basti Pratyagamana kala was noted in each case.

3. METHOD OF MEASURING SYMPHYSIS FUNDAL HEIGHT (SFH)

The pregnant lady was made to lie comfortably on the bed. Measuring tape was taken and the bone of pubic symphysis i.e. the pubic bone was felt. Measurement is started from pubic bone and the distance between the symphysis pubis and the highest point of the uterine fundus, defined with gentle pressure on a plane at right angle to the abdominal wall is measured now as Symphysis Fundal Height (SFH) and reading is noted down.

4. METHOD OF MEASURING ABDOMINAL GIRTH

The Abdominal girth was also measured using measuring tape at the level of umbilicus and reading is noted down.

5. METHOD OF STATISTICAL ANALYSIS

Descriptive and inferential statistical analysis has been carried out in the present study. Results on continuous measurements are presented on Mean ± SD (Min-Max) and results on categorical measurements are presented in Number (%). Significance is assessed at 5% level of significance.
Paired Proportion test has been used to find the significance of proportion in this paired data.
Statistical software: The Statistical software namely SPSS 18.0 and R environment ver.3.2.2 were used for the analysis of the data and Microsoft Word and Excel have been used to generate graphs, tables etc.

6. METHOD OF ASSESSMENT OF RESULTS

Subjective Parameters:

1. Fetal movements
2. Pain abdomen (uneasiness) in Oligohydramnios

Objective Parameters:

1. Maternal weight gain corresponding to the gestational age
2. Per Abdomen (P/A) in weeks
3. Symphysis Fundal Height (SFH) corresponding to the gestational age in centimeters.
4. Abdominal girth in centimeters.
5. USG (Obstetrics):
   - Amniotic fluid Index (AFI)
   - Estimated Fetal Weight (EFW)
   - Fetal measurements through biophysical profile (BPP)

GRADINGS OF SUBJECTIVE PARAMETERS

1. Pain Abdomen (Uneasiness)

- Grade 0 – No pain
- Grade 1 – Pain during Fetal Movements
- Grade 2 – On & off irrespective of Fetal Movements

2. Fetal Movements

- Grade 0 – Less Fetal Movements
- Grade 1 – Normal Fetal Movements

GRADINGS OF OBJECTIVE PARAMETERS

1. Maternal Weight Gain

- Grade 0 – Same as of first check up
- Grade 1 – Increased by 1 to 500 gms
- Grade 2 – Increased by 501 to 1000 gms
- Grade 3 – Increased by 1001 to 1500 gms
- Grade 4 – Increased by 1501 to 2000 gms
- Grade 5 – Increased by 2001 to 2500 gms
- Grade 6 – Increased by 2501 to 3000 gms

2. Per Abdomen [P/A]

- Grade 0 – Same as of first check up
- Grade 1 – Increased by 0 to 2 weeks
- Grade 2 – Increased by 2 weeks
- Grade 3 – Increased by 2 to 4 weeks
- Grade 4 – Increased by 4 weeks
- Grade 5 – Increased by 4 to 6 weeks
- Grade 6 – Increased by 6 weeks

3. Symphysis Fundal Height [SFH]

- Grade 0 – Decreased
- Grade 1 – Same as of first check up
- Grade 2 – Increased by 1 cm
- Grade 3 – Increased by 2 cm
- Grade 4 – Increased by 3 cm

- Grade 5 – Increased by 4 cm
- Grade 6 - Increased by 5 cm

4. Abdominal Girth

- Grade 0 – Same as of first check up
- Grade 1 – Increased by 1 cm
- Grade 2 – Increased by 2 cm
- Grade 3 – Increased by 3 cm
- Grade 4 – Increased by 4 cm
- Grade 5 – Increased by 5 cm
- Grade 6 – Increased by 6 cm

5. Amniotic Fluid Index [AFI]

- Grade 0 – Decreased
- Grade 1 – Same as of first check up
- Grade 2 – Increased by 0.1 to 1 cm
- Grade 3 – Increased by 1.1 to 2 cm
- Grade 4 – Increased by 2.1 to 3 cm
- Grade 5 – Increased by 3.1 to 4 cm
- Grade 6 – Increased by 4.1 to 5 cm

6. Estimated Fetal Weight [EFW]

- Grade 0 – Same as of first check up
- Grade 1 – Increased by 1 to 200 gms
- Grade 2 – Increased by 201 to 400 gms
- Grade 3 – Increased by 401 to 600 gms
- Grade 4 – Increased by 601 to 800 gms
- Grade 5 – Increased by 801 to 1000 gms
- Grade 6 – Increased by 1001 to 1200 gms

RESULTS AND DISCUSSION

Pain Abdomen:

Among the 30 patients, only 10% 0f the patients were having Pain Abdomen irrespective of fetal movements before treatment, and they got relief from pain after treatment on 8th day follow up itself i.e. 100% of the patients were not having pain abdomen and on 22nd day follow up also, 27 patients were not having pain abdomen and it was not possible to attend the 22nd day follow of 3 patients because they have delivered before the date of follow up.

For this parameter P-value is 0.346 which is statistically not significant with only 10% improvement, is because, only 10% of the patients were having pain and all got relief from the pain abdomen after treatment. Thus, the drug worked out very well in relieving the pain abdomen or uneasiness of those 10% of patients.

Fetal Movements:

No any patient complained of less fetal movements before treatment i.e. 100% of patients were having normal fetal movements. So here P-value is 1.000 which is statistically not significant with 0% improvement. This is because the drug did not get chance to prove its efficacy in this parameter.

Maternal Weight Gain:

After treatment at the end of follow up only 6.7% of patients did not gain weight and 10% of the patients did not attend second follow up and in rest of the patient's good maternal weight gain is seen ranging from 1-3 kg with the mean weight gain of 1.8 kg. Within the duration of treatment and follow up i.e. 22 days, 16.7% of the patients shown maximum weight gain upto 3 kg. Usually, rapid weight gain is seen in PIH patients, but these patients were not having PIH. Hence the drug shown highly significant results with P-value <0.001** and with 83.3% improvement.

Per Abdomen:

Before scan, Per Abdomen assessment is important in pregnancy. After giving the treatment, the mean increase in the measurement of per abdomen is seen by 4 weeks. Thus, the drug is highly significant in increasing per abdomen measurement with P-value <0.001** and shown 90% improvement.

Symphysis Fundal Height (SFH):

At the end of second follow up the Symphysis Fundal Height of 6.7% of patients remained same, in 3.3% of patients it is decreased, 10% of patients did not attend second follow up and in rest of the patients, SFH is increased ranging from 1cm to 5cm with the mean increase of
3.1cm. As above said, it is decreased in only one patient due to the physiological change i.e. when the presenting part descends inside the pelvic cavity by advancing gestational age, the SFH decreases. After the treatment, SFH is increased in 80% of the patients, hence the change is highly significant with P-value <0.001**.

Abdominal Girth:

After treatment with kukkutanda ksheera basti, the abdominal girth increased gradually ranging from 1cm to 6cm with an average increase of 3.8 cm. When the amniotic fluid volume increases and fetal growth increases, in relation to that the abdomial girth definitely increases. Here the drug has shown highly significant change with P-value <0.001** and with 90% improvement. 10% of the patients did not attend the second follow up.

Amniotic Fluid Index (AFI):

Among the 100% of the patients included in the study, 33.3% of patients were found to be having Oligohydramnios with IUGR. Among the patients of Oligohydramnios, in 60% of the patients the amniotic fluid index found to be increased after treatment with an average of 2.1 cm. In 20% of the patients, the amniotic fluid is decreased due to the natural phenomena of decrease in amniotic fluid near term pregnancy. And in the patients with severe Oligohydramnios, the drug shown less significant results. Hence the overall change in AFI after treatment is significant with P-value <0.001** showing 60% improvement.

Estimated Fetal Weight (EFW):

The final result of thesis proper is dependent on the final Estimated Fetal Weight and Birth Weight. Good increase is seen in the Estimated Fetal Weight after the treatment with kukkutanda ksheera basti ranging from 200 grams to 1200 grams with the mean weight gain of 807 grams. In 90% of the patients, estimated fetal weight gain is seen and this change is statistically highly significant with P-value <0.001**

Head Circumference (HC):

In my study, only one patient is seen with symmetrical IUGR, rest of all patients were having asymmetrical IUGR. As usually HC remains unaffected in asymmetrical IUGR and the drug does not interfere with the normal development of HC of fetus. Thus, the gestation specific normal growth of HC is observed in the patients.

Biparietal Diameter (BPD):

As usually BPD remains unaffected in asymmetrical IUGR and the drug does not interfere with the normal development of BPD of fetus. Thus, the gestation specific normal growth of BPD is observed in the patients.

Abdominal Circumference (AC):

The mean difference of AC after treatment is found to be 3.6 cm. This difference can be adopted to the action of Kukkutanda Ksheera Basti. AC is mainly affected in asymmetrical IUGR, and is the single most reliable parameter in detecting the IUGR. This significant change in the AC after treatment is definitely due to drug interference, where the brimhana dravyas played their role in dealing with the decreased AC (Udara krushata). Also, it is observed that the AC which is growing at 10^{th} percentile or below 10^{th} percentile at the time of registration of patients turned to growing more than 10^{th} percentile in some, at 50^{th} percentile in some and more than 50^{th} percentile in some. This shows that the drug definitely interfered with the improper growth of AC and pulled it to normal growth pattern.

Femur Length (FL):

As usually FL also remains unaffected in asymmetrical IUGR and the drug does not interfere with the normal development of FL of fetus. Thus, the gestation specific normal growth of FL is observed in the patients.

Delivery:

It was possible to record the delivery history and birth weight of the babies of 20 patients. Among them 55% of patients delivered normally and 45% of patients underwent LSCS. On considering the birth weight of these babies, the mean birth weight is found to be 2.6 kg.

At the end, mean Estimated fetal weight and mean birth weight is good with statistical significance of P-value <0.001**

CONCLUSION

Based on completion of this study, the following conclusions can be drawn:

- Acharya Sharangadhara though not enumerated this Garbhashosha among ashta garbhavyapats, we found the description of this condition in many other classics. All the conditions such as Upavishtaka, Nagodara, Garbhashosha, Garbhakshaya and Leenagarbha more or less are similar due to having common clinical feature i.e. growth retardation of fetus.
- Garbhashosha can be compared to Oligohydramnios and IUGR in modern science as it is explained in Garbhashosha that Vata prakopa leads to garbhashushkata and garbhastha balaka shushkata. And it is seen that most of cases of IUGR are always associated with Oligohydramnios.
- Considering the nutritional aspect during pregnancy, it is studied that intake of balanced diet including micro and macronutrients and proper hydration is very necessary for the health of both mother and the fetus.
- As we know, Kukkutanda and Ksheera are best brimhana drugs, so combination of these drugs worked out very well via Basti thepary.
- Finally, this Kukkutanda Ksheera Basti chikitsa has played a key role in improving the condition of Garbhashosha. This was successfully achieved by improving symptoms of Garbhashosha within the 22 days duration of treatment and follow up, it is observed that improvement was being maintained and further improvement in all signs and symptoms was observed after follow up period.

- Taking into account of P-value, which revealed that the parameters which are related to IUGR showed highly significant change and the parameter of Oligohydramnios also showed significant change but as not that of IUGR.
- Improvement on different USG findings was appreciable.
- Depending on the obtained results, we have all the reasons to reject the null hypothesis (H0).

Hence the alternate hypothesis(H1) can be accepted i.e.

H1: There is significant effect of Kukkutanda Ksheera Basti in Garbhashosha.

Limitations of Study:

- Small sample size
- Restricted geographical area (Badami and surrounding villages)
- Medicine is self-prepared

Scope for further research:

Though in this work maximum efforts have been put to fulfill the subject and to achieve the aims and objectives of the present study. There is still a wide scope for improvisation of this study as follows:

- This trial work is completed by giving Kukkutanda Ksheera drug through the Basti, further studies can be carried out by giving this same drug orally.
- In comparison to this Kukkutanda Ksheera Basti, further research can be carried out by using another drug.
- Trial should be conducted on larger sample size to prove its efficacy more precisely.

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CLINICAL STUDY TO EVALUATE THE EFFICACY OF KUKKUTANDA KSHEERA BASTI IN GARBHASHOSHA

Name: **SL.No:**
Husband's/Father's Name: **O.P. D No:**
Age: **yrs** **I.P. D No:**

Sex: Female **Marital Status:** M/UM

Address: **Religion:** H/M/C/O
Education: Wife - UE/10th/PUC/UG/PG/O Husband - UE/10th/PUC/UG/PG/O
Occupation: Wife - HW/Lab/Tchr/Other Husband -Lab/Bus/Tchr/Other **Socio-Economic Status:** L/LM/M/UM/H **Phone No:**
Date of Commencement of Treatment: **Date of Completion of Treatment:**

CONSENT
After being explained thoroughly the entire purpose of clinical trial and nature of treatment to my satisfaction, I hereby willingly agree to participate as a subject in the above clinical study.

Signature of the Patient
I. Pradhana Vedana (Chief complaints with duration):
II. Adhyatana Vyadhi Vrittanta (H/O Present Illness):
III. Poorva Vyadhi Vrittanta (H/O Past Illness):
IV. Rajo Vrittanta (Menstrual History):
Age of Menarche:
Menstrual History
Interval: days
Duration: days
Quantity: Excessive/Moderate/Severe Associated complaints:
Anartava Kala: L.M.P -
E.D.D -

V. Prasava Vrittanta (Obstetric History):

No	Year & Date	Pregnancy Events	Labour Events	Method of Delivery	Sex

VI. Contraceptive History:

Duration:

Method used: Safe period/Condom/OCP/IUCD/Others

Gynaec History: Vaginal discharge -

Colour : Colourless / White / Yellow / Greenish / Blood stain Consistency : Thick / Watery

Quantity: Copious / Scanty Odour : Odourless / Offensive

Personal History:

Appetite: Good / Moderate / Poor Diet: Veg / Mixed

Sleep: Sound / Disturbed

Micturation: Free / Dysuria / Polyuria / Oliguria Bowel: Regular / Irregular / Constipated / Loose stools

Habits:

VII. Pareeksha (Examination)

A) Samanya Pareeksha (General Examination):

Built: Lean/Medium/Obese

Blood Pressure:

Height:

Pulse:

Weight:

Respiration rate:

Pallor:

Temperature:

Oedema:

Lymph nodes:

B) Samsthanika Pareeksha (Systemic Examination):

R.S:

C.V.S:

C.N.S:

G.I.T:

M.S:

C) Astasthana Pareeksha:

Nadi: Vatika/Paittika/Shlaishmika Jihwa : Lipta/Alipta/Rooksha Mootra : Prakrita/Vikrita

Mala: Prakrita/Vikrita/Baddha/Abaddha Shabda: Prakrita/Vikrita

Sparsha: Ushna/Sheeta/Samasheetoshna/Mrudu/Rooksha Drik: Prakrita/Pandura/Vikrita

Akriti: Sthoola/Madhyama/Krusha

D) Dashavidha Pareeksha:
Prakriti: V/P/K/VP/PK/VK/VPK **Vikriti:**
Dosha -
Dhatu –

Mala -
Sara: Pravara/Madhyama/Avara
Samhanana: Pravara/Madhyama/Avara
Pramana: Heena/Madhyama/Uttama
Satva: Pravara/Madhyama/Avara
Satmya: Pravara/Madhyama/Avara
Ahara Shakti: i) Abhyavaharana **-** Pravara/Madhyama/Avara
ii) Jarana **-** Pravara/Madhyama/Avara
Vyayama Shakti: Pravara/Madhyama/Avara
Vaya: Bala/Madhyama/Vriddha
E) Obstetric Examination:
Date: Weeks of Pregnancy:
Per Abdomen:
(a) Inspection **-**
(b) Palpation **-**
Fundal Height:
Lie:
Presentation:
External Ballottement: +ve / -ve
(c) Auscultation **-**
F.H.S:
Breast and Nipples: Vaginal Examination:
VIII. Routine Investigations:
Blood Group:
Hb %:
R.B.S:
H.I.V:
HBsAg:
V.D.R.L:
Ur. Sug:
Ur. Alb:

Assessment
Subjective Parameters:
In Oligohydramnios -
A) Pain Abdomen i.e. Uneasiness (If lady complains)

Grade	BT Date:	AT (8^{th} day) Date:	AT (22^{nd} day) Date:
0 - No pain			
1 - Pain during FM			
2 - On & off, irrespective of FM			

B) **Fetal Movement Chart** (If lady complains less fetal movements)

In Fetal Movement Chart, starting time of first fetal kick and the end time after continuous 10 fetal kicks are noted.

During Treatment -

Start Date: Weeks:

Day	1	2	3	4	5	6	7
Start time:							
End time:							

After Treatment (From 15^{th} Day) -

Start Date: Weeks:

Day	1	2	3	4	5	6	7
Start time:							
End time:							

Objective Parameters:

In oligohydramnios and IUGR -

Parameters	**BT Date:**	**AT (8^{th} day) Date:**	**AT (22^{nd} day) Date:**
Maternal Weight in kg			
P/A in weeks			
Symphysis Fundal Ht in cm			
Abdominal Girth in cm			

USG Findings -

Parameters	**BT Date:**	**AT (8^{th} day) Date:**	**AT (22^{nd} day) Date:**

AFI in cm			
EFW in gms			
BPD in cm & wks			
HC in cm & wks			
AC in cm & wks			
FL in cm & wks			

Chikitsa:
Kukkutanda Ksheera Basti
Dose: 1 Egg (50 ml) + 30 ml godugdha = 80 ml
Duration: 7 days

Date of commencement of treatment:
Date of completion of treatment:

Day	Date	Given time	Return time
1			
2			
3			
4			
5			
6			
7			

IX. Follow up:
1) On 8th day (Date:)
2) On 22nd day (Date:)

Result:
Improved
Unchanged