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# Effect of *Ksheer Basti* in *Garbha Kshaya* (Late-Onset Intrauterine Growth Restriction): A Case Report

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**ABSTRACT:**

Intrauterine Growth Restriction (IUGR) is a major contributor to perinatal morbidity and mortality, characterized by the inability of the foetus to achieve its expected growth potential. In *Ayurveda*, it may be correlated with *Garbha Kshaya* due to impaired *Garbha Poshana. Ksheera*, with its nourishing and *Brimhana* properties, may offer an *Ayurvedic* rationale for supporting fetal growth. A 20-year-old primigravida with a singleton pregnancy was diagnosed with fetal growth restriction on ultrasonography. Her blood pressure was 100/60 mmHg, hemoglobin 11.3 g/dL, random blood sugar 83 mg/dL, and TSH 2.2. Ultrasonography dated 15/05/2026 revealed an estimated fetal weight of 2038 g and an amniotic fluid index (AFI) of 8.6 cm, with reduced fetal abdominal circumference for gestational age. Doppler findings were normal. Along with routine iron and calcium supplementation, *Ksheera Basti* using cow's milk was administered on alternate days for seven sittings. Approximately 300 mL of milk was boiled and reduced to 250 mL, cooled to a tolerable temperature, and administered rectally. No adverse effects were observed. Follow-up ultrasonography on 08/06/2026 showed an estimated fetal weight of 2641 g and AFI of 12.6 cm, with normal Doppler findings. The patient delivered vaginally on 19/06/2026, with a birth weight of 3.0 kg with satisfactory Apgar. NICU admission was not required. This case describes a favourable outcome following *Ksheera Basti*; however, its efficacy and safety for IUGR require further systematic evaluation. The present case suggests improvement in fetal growth and amniotic fluid following *Ksheer Basti* with routine antenatal care, with its *Guru, Snigdha, Madhura, Brimhana*, and nourishing properties potentially supporting *Garbha Poshana* and *Vata* balance; however, controlled clinical studies are needed to establish its efficacy and safety in IUGR.

**KEYWORDS**: *Garbha Kshaya, Garbha Poshana*, Intrauterine Growth Restriction (IUGR), *Ksheera Basti*.

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**INTRODUCTION:**

Intrauterine growth restriction (IUGR), also referred to as fetal growth restriction (FGR), is a condition in which the fetus fails to achieve its expected growth potential. It is associated with an increased risk of fetal distress, low birth weight, neonatal morbidity, and perinatal mortality. Early diagnosis and appropriate monitoring are essential to reduce associated adverse perinatal outcomes. [1-2]

FGR represents a substantial clinical burden in India. Data from the Indian Radiological and Imaging Association's Samrakshan programme reported an FGR prevalence of 11.39% in the screened population, while the prevalence among the screened population in Madhya Pradesh was 20.55%. Ultrasonographic assessment of fetal biometry, particularly abdominal circumference (AC) and estimated fetal weight (EFW), along with Doppler velocimetry where indicated, plays an important role in diagnosis, surveillance, and management. [11,12]

Ayurveda emphasizes adequate nourishment for the normal development of Garbha through the concepts of Garbha Poshana and Garbha Vriddhi. Rasa Dhatu is considered important in the process of Dhatu Poshana and may be conceptually associated with the nourishment required for fetal growth. [5,8,9,10] Vata Dosha, particularly Apana Vayu, is also considered important in pregnancy. Ksheera (milk), traditionally described as nourishing and Brimhana, may provide an Ayurvedic rationale for supporting nourishment. [3,4] Basti is recognized in classical Ayurvedic literature as an important therapeutic modality for Vata disorders. [3] However, the efficacy and safety of Ksheera Basti for fetal growth restriction have not been established, and it should not replace standard obstetric monitoring and management.

The present case report describes the clinical course of a primigravida with FGR who received *Ksheera Basti* as an adjunct to routine antenatal care, with subsequent assessment of fetal growth, amniotic fluid parameters, and neonatal outcome.

**CASE REPORT:**

A 20-year-old primigravida attended the antenatal outpatient department no.26 of Govt. Dhanwantri ayurvedic medical hospital for routine antenatal care. She reported no active complaints and had normal perception of fetal movements. Her last menstrual period (LMP) was 12 September 2025, and her expected date of delivery (EDD), calculated using Naegele's rule, was 19 June 2026.

She had no past medical or surgical history and no known allergies. She had regular menstrual cycles before pregnancy. No known family history of genetic disorders or pregnancy complications. No history of smoking, alcohol or any recreational drug use. Her antenatal course was uneventful. All routine investigations, including laboratory tests and ultrasounds were normal. The patient had no history of hypertension, diabetes mellitus, thyroid disorder, or any significant systemic illness. She was receiving routine iron and calcium supplementation throughout pregnancy.

**General Examination**

Age - 20 years
Height - 152 cm
Weight - 72 kg
BP - 100/60 mmHg
Pulse rate - 92bpm
FHR - 140/min

Based on serial ultrasonographic findings demonstrating persistent reduction in abdominal circumference and fetal biometric lag, the diagnosis of late-onset IUGR was established.

Seril ultrasonographic assessments dem onstrat-
ed persistent fetal abdominal circumfer ence lag and reduced estimated fetal we ight for gestational age. The estimated fe tal weight increased from 1400 ± 204 g on 15 April 2026 to 2038 ± 297 g on 15 May 2026 and 2641 g on 8 June 2026. T he AFI decreased from 10.5 cm to 8.6 cm dur-
ing the initial assessments and subseque ntly increased to 12.6 cm. Doppler studi es remained normal throughout the rep ored assessments. These findings indica te interval fetal growth and improveme nt in the amniotic fluid index following t he intervention.

**Ayurvedic Correlation**

In Ayurveda, the present condition can be correlated with Garbha Kshaya. Proper fetal growth is understood in the classical framework to depend upon adequate Garbha Poshana through maternal nourishment (Ahara Rasa). The relevant classical descriptions of fetal nourishment and development are cited here. [4,8,9]

Any disturbance in the process of Garbha Poshana may be conceptually associated with inadequate fetal growth. Persistent reduction in fetal growth parameters and abdominal circumference observed in the present case can be interpreted, from an Ayurvedic perspective, as manifestations of Garbha Kshaya. Vata Dosha is described in classical Ayurvedic texts in relation to physiological functions and development; its vitiation may be considered in this conceptual interpretation. [5]

Considering the traditionally described nourishing and Brimhana properties of Ksheera, together with the Vata-oriented rationale of Basti, Ksheer Basti was selected as the therapeutic intervention. [6,7]

**THERAPEUTIQUE INTERVENTION :**

*Ksheer Basti* was administered on alternate days for seven sittings.

**Preparation**

Fresh cow's milk (300 mL) was boiled and reduced to approximately 250 mL.

**Procedure**

After cooling to a suitable temperature, the prepared milk was administered per rectum. Retention was advised according to the patient's holding capacity with a maximum duration of approximately 45 minutes.

No Ayurvedic oral medications were administered during the treatment period. Routine iron and calcium supplementation was continued.

**Follow-Up**

Repeat ultrasonography performed on 08 June 2026 revealed:

* Estimated Fetal Weight: 2641 g
* Doppler Study: Normal

An increase in estimated fetal weight was observed during follow-up.

**Outcome**

The patient was followed until delivery.

On 19 June 2026, she underwent spontaneous normal vaginal delivery of a live healthy neonate.

**Neonatal Outcome**

* Birth Weight: 3.0 kg
* APGAR Score at 1 minute: 8
* APGAR Score at 5 minutes: 10

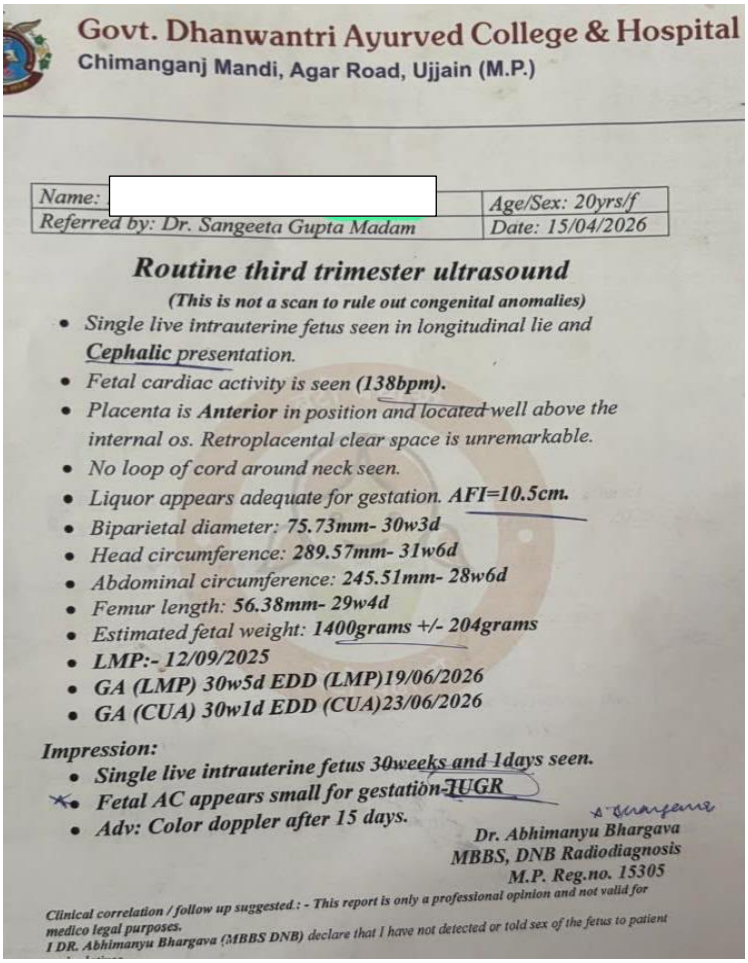
The postpartum period was uneventful, and both mother and baby remained healthy.

**Table-1: Laboratory Investigations**

| Investigation | Before Treatment (BT) | After Treatment (AT) |
|---|---|---|
| Hemoglobin | 11.2g/dL | 11.5g/dL |
| Random Blood Sugar | 83 mg/dL | Not done |
| TSH | 2.2 mIU/L | Not done |

**Table-2: Comparative table of ultrasonographic findings**

| Parameters | BT — 15/04/2026 | DT — 15/05/2026 | AT — 08/06/2026 |
|---|---|---|---|
| Gestational age by LMP | 30 weeks 5 days | 35 weeks | 38 weeks 3 days |
| Gestational age by ultrasound | 30weeks 1 days | 33 weeks 4 days | 35 weeks 2 days |
| Biparietal diameter (BPD) | 75.73 mm | 83.33 mm | 85.32mm |
| Head circumference (HC) | 289.57 mm | 314.12 mm | 317.18mm |
| Abdominal circumference (AC) | 245.51 mm | 271.87 mm | 308.25 |
| AC corresponding gestational age | 28 weeks 6 days | 31 weeks 2 days | 34 weeks 5 days |
| Estimated fetal weight (EFW) | 1400 ± 204 g | 2038 ± 297 g | 2641 g |
| Amniotic fluid index (AFI) | 10.5 cm | 8.6 cm | 12.6 cm |
| Fetal heart rate | 138 beats/min | 130 beats/min | 140 beats/min |
| Placental location | Anterior | Anterior | Anterior |
| Doppler study | Normal | Normal | Normal |
| Impression | AC small for gestational age,suggestive of IUGR | Persistent AC lag, suggestive of IUGR | Interval increase in EFW and AFI; Doppler remained normal |



Govt. Dhanwantri Ayurved College & Hospital
Chimanganj Mandi, Agar Road, Ujjain (M.P.)

| Name: | Age/Sex: 20yrs/f |
|---|---|
| Referred by: Dr. Sangeeta Gupta Madam | Date: 15/04/2026 |

**Routine third trimester ultrasound**

**(This is not a scan to rule out congenital anomalies)**

- Single live intrauterine fetus seen in longitudinal lie and Cephalic presentation.
- Fetal cardiac activity is seen **(138bpm).**
- Placenta is **Anterior** in position and located well above the internal os. Retroplacental clear space is unremarkable.
- No loop of cord around neck seen.
- Liquor appears adequate for gestation. **AFI=10.5cm.**
- Biparietal diameter: **75.73mm- 30w3d**
- Head circumference: **289.57mm- 31w6d**
- Abdominal circumference: **245.51mm- 28w6d**
- Femur length: **56.38mm- 29w4d**
- Estimated fetal weight: **1400grams +/- 204grams**
- **LMP:- 12/09/2025**
- **GA (LMP) 30w5d EDD (LMP)19/06/2026**
- **GA (CUA) 30w1d EDD (CUA)23/06/2026**

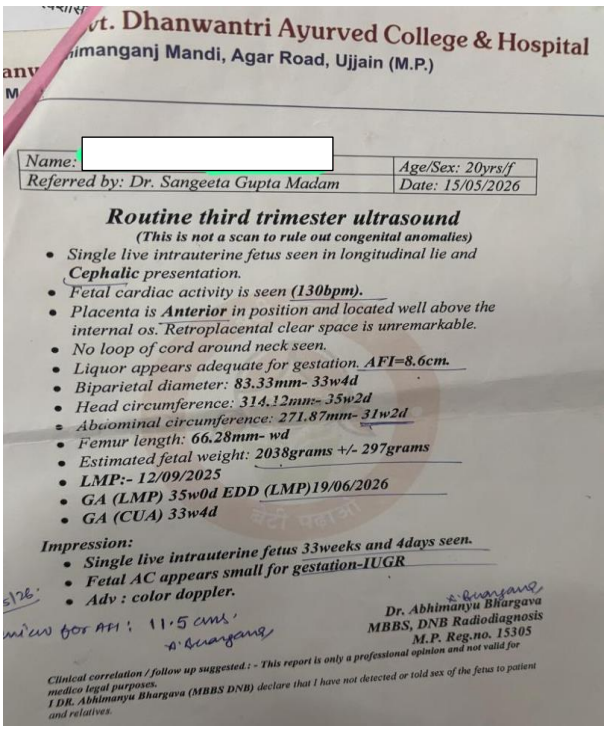
**Impression:**

- **Single live intrauterine fetus 30weeks and 1days seen.**
- **Fetal AC appears small for gestation-IUGR**
- **Adv: Color doppler after 15 days.**

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Clinical correlation / follow up suggested : - This report is only a professional opinion and not valid for medico legal purposes.
I DR. Abhimanyu Bhargava (MBBS DNB) declare that I have not detected or told sex of the fetus to patient

**Figure-1: Ultrasound Examination (15 April 2026)**



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Chimanganj Mandi, Agar Road, Ujjain (M.P.)

| Name: | Age/Sex: 20yrs/f |
|---|---|
| Referred by: Dr. Sangeeta Gupta Madam | Date: 15/05/2026 |

**Routine third trimester ultrasound**

**(This is not a scan to rule out congenital anomalies)**

- Single live intrauterine fetus seen in longitudinal lie and Cephalic presentation.
- Fetal cardiac activity is seen **(130bpm).**
- Placenta is **Anterior** in position and located well above the internal os. Retroplacental clear space is unremarkable.
- No loop of cord around neck seen.
- Liquor appears adequate for gestation. **AFI=8.6cm.**
- Biparietal diameter: **83.33mm- 33w4d**
- Head circumference: **314.12mm- 35w2d**
- Abdominal circumference: **271.87mm- 31w2d**
- Femur length: **66.28mm- wd**
- Estimated fetal weight: **2038grams +/- 297grams**
- **LMP:- 12/09/2025**
- **GA (LMP) 35w0d EDD (LMP)19/06/2026**
- **GA (CUA) 33w4d**

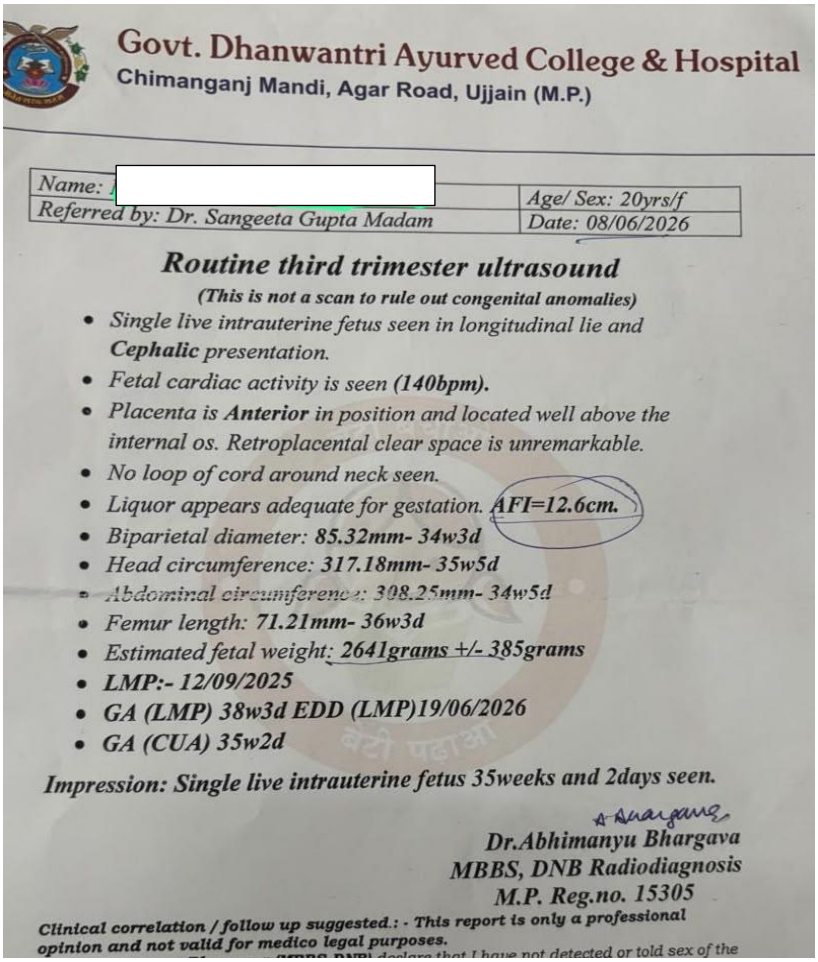
**Impression:**

- **Single live intrauterine fetus 33weeks and 4days seen.**
- **Fetal AC appears small for gestation-IUGR**
- **Adv : color doppler.**

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**Figure-2: Second Ultrasound Examination (15 May 2026)**



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Chimanganj Mandi, Agar Road, Ujjain (M.P.)

Name: [redacted] | Age/ Sex: 20yrs/f
Referred by: Dr. Sangeeta Gupta Madam | Date: 08/06/2026

**Routine third trimester ultrasound**

**(This is not a scan to rule out congenital anomalies)**

- Single live intrauterine fetus seen in longitudinal lie and **Cephalic** presentation.
- Fetal cardiac activity is seen **(140bpm).**
- Placenta is **Anterior** in position and located well above the internal os. Retroplacental clear space is unremarkable.
- No loop of cord around neck seen.
- Liquor appears adequate for gestation. **AFI=12.6cm.**
- Biparietal diameter: **85.32mm- 34w3d**
- Head circumference: **317.18mm- 35w5d**
- Abdominal circumference: **308.25mm- 34w5d**
- Femur length: **71.21mm- 36w3d**
- Estimated fetal weight: **2641grams +/- 385grams**
- **LMP:- 12/09/2025**
- **GA (LMP) 38w3d EDD (LMP)19/06/2026**
- **GA (CUA) 35w2d**

**Impression: Single live intrauterine fetus 35weeks and 2days seen.**

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**Clinical correlation / follow up suggested.: - This report is only a professional opinion and not valid for medico legal purposes.**

**Figure-3: Second Ultrasound Examination (8 June 2026)**

**DISCUSSION:**

Abdominal circumference is an important ultrasonographic parameter in the assessment of fetal growth restriction. Persistent reduction in abdominal circumference along with fetal biometric lag supported the diagnosis of late-onset IUGR in this case. [11,12]

From an Ayurvedic perspective, the condition can be interpreted as Garbha Kshaya resulting from impaired Garbha Poshana. Classical descriptions of maternal nourishment and fetal development provide the conceptual basis for this interpretation. [8,9]

Rasa Dhatu has a fundamental role in nourishment and Dhatu Poshana in Ayurvedic physiology. Therefore, impairment of Rasa Dhatu Poshana may be conceptually associated with inadequate nourishment available for the developing Garbha. In the present case, fetal growth restriction was interpreted as a possible disturbance in the process of Rasa Dhatu Poshana and Garbha Poshana. [5,10]

Vata Dosha is described in Ayurveda in relation to movement and regulation of physiological functions. Apana Vayu is particularly important in the context of pregnancy and reproductive functions. The role of Vata in this case is an Ayurvedic conceptual interpretation and should not be taken as a biomedical mechanism of IUGR. [7]

The qualities of aggravated Vata, particularly Ruksha and Laghu, are considered opposite to the nourishing and

unctuous qualities associated with Brimhana. This provides an Ayurvedic conceptual framework for the sequence described below. [3]

*Vata Prakopa* → *Rasa Dhatu Poshana Vikriti* → impaired *Garbha Poshan*a → inadequate *Garbha Vriddh*i → fetal growth restriction

This represents a conceptual Ayurvedic interpretation and should not be considered a direct biomedical explanation of IUGR.

Ksheera is traditionally described in Ayurveda as a nourishing substance and is associated with Madhura Rasa, Guru and Snigdha Guna, and Brimhana and Poshana-oriented actions. These traditional properties provide the Ayurvedic rationale for its selection in this case. [4]

In the context of the present case, Ksheera may therefore be considered to provide a Brimhana- and Poshana-oriented intervention, which is conceptually relevant when impaired fetal nourishment is considered. [3]

Basti is traditionally regarded as an important therapeutic modality for Vata Dosha. Since Pakvashaya is considered an important site of Vata, Basti is classically employed in Vata-related disorders. [3,6,7]

*Ksheer Basti* consequently combines two therapeutic principles:

*Basti* → *Vata*-oriented therapeutic approach

*Ksheera* → *Guru + Snigdha + Madhura* → *Brimhana + Poshana*

Together, these may provide a theoretical basis for supporting *Garbha Poshana* and *Garbha Vriddhi.*

Following seven sittings of *Ksheer Basti*, follow-up ultrasonography demonstrated an increase in estimated fetal weight from 2038 g to 2641 g. The pregnancy subsequently progressed to term and resulted in a normal vaginal delivery of a healthy neonate weighing 3.0 kg with satisfactory APGAR scores.

**CONCLUSION:**

The present case demonstrates a favorable maternal and neonatal outcome in a primigravida diagnosed with late-onset intrauterine growth restriction. Serial ultrasonographic examinations showed persistent fetal growth lag prior to intervention. Following administration of *Ksheer Basti*, follow-up assessment demonstrated improvement in fetal growth parameters, and the pregnancy culminated in the delivery of a healthy 3.0 kg neonate by normal vaginal delivery. Further clinical studies are required to evaluate the role of *Ksheer Basti* in the management of *Garbha Kshaya (IUGR)*

**Patient Consent :**

Written informed consent was obtained from the patient for publication of clinical information while maintaining confidentiality.

**Conflict of interest:**

The author declares that there is no conflict of interest.

**Guarantor*:*** The corresponding author is the guarantor of this article and its contents.

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