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## Management of Oligohydramnios with Ayurveda: A Case Study

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### KEYWORDS

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Shatavari  
Ksheerapana.

### ABSTRACT:

**BACKGROUND:** A 25-year-old woman, pregnant for the first time, visited the Primary Health Centre's (PHC), at Raipur, Hingana, Nagpur, outpatient department (OPD) on November 30, 2024. She presented with two primary concerns: a nine-month history of amenorrhea and a recent decrease in foetal movement, which she first noticed the previous night. Notably, she did not report any symptoms of labour pain, vaginal leakage, or bleeding.

**METHOD:** The patient's initial visit to the OPD occurred on September 15, 2024, for a routine antenatal check-up at 6 months of gestation. Ultrasonography performed at that time revealed no abnormalities and adequate amniotic fluid volume. Despite being advised to maintain a proper diet rich in fluids, iron, and calcium, and to monitor foetal movement daily, the patient's subsequent visits to the OPD were irregular. Unfortunately, her poor dietary habits and negligence led to a decrease in foetal movement, which she first noticed on the night of November 24, 2024, during her 38th week of gestation. She then consulted an allopathic hospital, where an ultrasonography revealed oligohydramnios and a decreased foetal heart rate. The hospital advised an emergency caesarean section as soon as possible, but the patient declined and instead visited the PHC. Upon consultation, she was prescribed *Shatavari Ksheerapaka*, an *Ayurvedic* herbal remedy, to be taken orally twice a day. <sup>(1)(2)</sup>

**RESULTS:** Following the administration of *Shatavari Ksheerapaka*, a notable improvement in amniotic fluid volume was observed. The patient subsequently delivered a healthy baby vaginally, without requiring any pre-induction or augmentation measures. Moreover, no signs of foetal distress were detected during the delivery, indicating a successful and uncomplicated outcome.

**CONCLUSION:** Oligohydramnios has become a prevalent condition in modern times, particularly at term, leading to an increased likelihood of operative interventions. However, adhering to a well-structured *Ayurvedic* regimen for pregnant women (*garbhini*) can significantly mitigate this risk.



## 1. Introduction

Amniotic fluid is one of the earliest visible signs of pregnancy, playing a vital role in ensuring a healthy pregnancy. It acts as a cushion, protecting the foetus from physical shock, and facilitates the development and expansion of the foetal lungs. The volume of amniotic fluid changes throughout pregnancy, averaging approximately 400 mL at term. <sup>(3)</sup>

Assessing amniotic fluid volume is crucial in obstetric management. An amniotic fluid index (AFI) of less than 5 cm indicates oligohydramnios, a condition associated with increased risks of umbilical cord occlusion, foetal distress, meconium-stained liquor, operative deliveries, and stillbirth at term. <sup>(4)</sup>

In modern medicine, administering L-arginine has been suggested to improve AFI in oligohydramnios. L-arginine is a precursor to nitric oxide, which may help in local vasodilatation, increasing blood volume and viscosity in the feto-maternal circulation. <sup>(5)</sup>

In Ayurveda, various herbal remedies and regimens have been described for managing oligohydramnios. *Acharya Charaka's* ninth-month regimen for pregnant women (*Garbhini*) involves the use of *madhura aushadha siddha taila matrabasti*, which can reduce the incidence of caesarean sections and promote a natural, complication-free delivery.

*Acharya Sushruta* recommended the use of *Medhyaanna* for treating *Garbhakshya* and *Brimhaniyapaya* (milk) for managing *Garbhashosha*. *Shatavari* (*Asparagus racemosus*) is an herb that has been traditionally used in Ayurveda to promote foetal growth and development. It contains

steroidal saponins, amino acids, isoflavones, and other nutrients that support fetal health. <sup>(6)</sup>

Milk, an essential component of the *Ayurvedic* regimen, provides omega-3 fatty acids, calcium, selenium, phosphorus, potassium, B-complex vitamins, and amino acids. *Bala*, another herb used in *Ayurvedic* medicine, contains saponins, palmitic acid, stearic acid, ephedrine, and other bioactive compounds. *Tila*, or sesame oil, is rich in fatty oils, sesamin, sesamol, vitamin E, B-complex vitamins, phytosterols, and amino acids.

These *Ayurvedic* herbs and remedies offer a natural and effective approach to managing oligohydramnios, promoting foetal health, and supporting a complication-free delivery.

Notably, *Shatavari Ksheerapana* has emerged as a highly effective treatment for managing oligohydramnios. Its administration has been shown to: <sup>(7)</sup>

- Significantly increase the amniotic fluid index
- Provide optimal nourishment to the foetus
- Reduce the risk of operative deliveries

By incorporating *Shatavari Ksheerapana* into prenatal care, healthcare providers may be able to improve maternal and foetal outcomes, while minimizing the need for surgical interventions. <sup>(8)</sup>

## 2. Aim and Objectives

### AIM

To investigate the therapeutic efficacy of *Shatavari Kshirapaka* in the management of oligohydramnios at term, with a focus on its effects on amniotic fluid volume and foetal well-being.



## OBJECTIVES

To decrease the rate of caesarean sections resulting from oligohydramnios at term, thereby promoting a safer and more natural delivery process.

### 3. Methods

## CASE STUDY

### Chief complaint

1. Amenorrhea (absence of menstruation) for 9 months, confirming pregnancy.
2. Reduced foetal movement since the night of November 24, 2020.

### Associated Symptoms:

- No labour pain
- No vaginal leakage
- No vaginal bleeding

### History of Present Illness

#### Patient Presentation:

A 21-year-old primigravida patient presented at the Primary Health Centre's (PHC) outpatient department on November 25, 2020, with concerns about amenorrhea for 9 months and reduced foetal movement since the previous night.

#### Initial Assessment:

The patient's first visit to the PHC occurred on September 15, 2020, when she was 6 months pregnant. Ultrasonography at that time confirmed a single live intrauterine pregnancy with normal parameters. The patient was advised to attend regular follow-up appointments, maintain a balanced diet rich in

fluids, iron, and calcium, and undergo routine ultrasonography as part of antenatal care. The initial assessment found adequate amniotic fluid volume and normal foetal parameters.

#### Development of Complications:

However, due to the patient's poor dietary habits, negligence, and irregular antenatal visits, she experienced decreased foetal movement starting on the night of November 24, 2020. The patient reported developing diarrhoea a few days prior due to a faulty diet and reduced fluid intake.

#### Emergency Visit and Refusal of Caesarean Section:

On the night of November 24, 2020, the patient visited an allopathic hospital due to diminished foetal motility. Ultrasonography revealed an amniotic fluid index of less than 4 cm, a loop of cord around the neck, and a diminished foetal heart rate. The hospital advised an emergency caesarean section, but the patient refused, expressing her desire for a natural birth.

#### Ayurvedic Management:

The patient then visited the PHC's outpatient department, where she was thoroughly examined and provided written consent for *Ayurvedic* management of severe oligohydramnios.

#### Personal and Medical History:

- **Appetite:** Normal
- **Sleep:** Disturbed
- **Bowel movements:** Satisfactory
- **Urination:** Clear
- **Addictions:** None
- **Allergies:** None



- **Diet:** Mixed (includes a variety of food groups)

**Past Medical/Surgical/Family History:** Not significant (no notable medical conditions or surgeries in personal or family history).

**Menstrual and Obstetric History:**

1. **Last Menstrual Period (LMP):** March 1, 2020
2. **Expected Date of Delivery (EDD):** December 6, 2020
3. **Period of Gestation:** 38 weeks and 3 days (as of November 25, 2020)

**Obstetric History and Physical Examination:**

**Obstetric History:**

1. **Gravida (G):** 1 (present pregnancy)
2. **Para (P):** 0 (no previous deliveries)
3. **Live births (L):** 0
4. **Abortions (A):** 0
5. **Married life:** 1.5 years

**General Physical Examination:**

- **General Condition:** Fair
- **Blood Pressure:** 110/60 mmHg
- **Pulse Rate:** 82 beats per minute
- **Temperature:** 97.8°F
- **Height:** 5 feet 2 inches
- **Weight:** 74 kg
- **Pallor:** Absent
- **Pedal Oedema:** Absent

**Systemic and Physical Examination Findings:**

- **Digestive System:** Normal
- **Cardiovascular System:** Normal
- **Respiratory System:** Normal
- **Central Nervous System:** Normal

**Per Abdominal Examination:**

- **Fundal Height:** Less than expected for gestational age
- **Foetal Lie:** Longitudinal
- **Foetal Presentation:** Cephalic
- **Foetal Parts:** Easily palpable
- **Ballotement:** Absent (failure to ballot into the uterus)
- **Foetal Heart Sounds:** Present, but with diminished frequency (120 beats per minute)
- **Uterine Contractions:** Absent

**Per Vaginal Examination and Antenatal Investigations: <sup>(9)</sup>**

**Per Vaginal Examination:**

- **Pelvic Adequacy:** Adequate
- **Cervical Dilatation:** None
- **Cervical Effacement:** None
- **Vaginal Leaking:** Absent
- **Vaginal Bleeding:** Absent

**Antenatal Investigations:**

- **Blood Investigations:** Normal
- **Urine Investigations:** Normal

**Management Protocol:**

Starting from November 25, 2020, the patient was advised to follow the below treatment plan:

- **Medication:** *Shatavari Ksheerapana*
- **Dosage:** 5 grams of *Shatavari* root powder
- **Preparation:** Boiled in 300 ml of milk
- **Frequency:** Twice daily.

**4. Results**

**Following the administration of *Shatavari Ksheerapana*, the patient reported: <sup>(10)</sup>**



Noticeable improvement in foetal movement within the uterus on a daily basis.

Increasing Fundal Height: Gradual improvement in fundal height observed during each abdominal examination.

## Ultrasonography Report (December 2, 2020):

### Key findings:

- **Gestational Age:** 37-38 weeks
- **Foetal Status:** Single live foetus
- **Amniotic Fluid Index (AFI):** 8 cm (improved from previous measurement)
- **Foetal Heart Rate:** 142 beat per minute (within normal range)
- **Foetal Movement:** Normal
- **Cord Position:** One loop of cord around the neck

### 5. Discussion

Oligohydramnios is a condition characterized by a decrease in amniotic fluid volume, which arises due to the depletion (*kshaya*) of *Jaliya Mahabhuta* (fluid principle).

The administration of *Shatavari Ksheerapana*, comprising *Shatavari* and milk, addresses this imbalance. Both ingredients possess :

**Madhura Rasa (sweet taste):** Enhances fluid production

**Madhuravipaka (sweet metabolic property):** Nourishes tissues and promotes fluid balance

**Sheeta Guna (cold property):** Soothes and calms the body, reducing fluid loss

**Guru Guna (heavy property):** Increases fluid density and volume

By consuming *Shatavari Ksheerapaka* twice daily, the amount of amniotic fluid increases, allowing the foetus to move freely within the uterus without restriction. This treatment approach leads to:

**Improved foetal movement:** As perceived by the patient

**Increased amniotic fluid index:** Confirmed through ultrasonographical evaluation.

### 7. Conclusion

Oligohydramnios has become a relatively common complication at term in contemporary times. This condition often necessitates operative interventions, which can introduce additional risks for the mother and the baby.

Adhering to an *Ayurvedic* regimen during pregnancy (*garbhini*) can significantly mitigate the risk of developing oligohydramnios. This holistic approach emphasizes:

**Dietary modifications:** Tailored to enhance fluid production and balance.

**Lifestyle adjustments:** Encouraging habits that promote overall well-being and foetal health.

**Herbal interventions:** Utilizing herbs like *Shatavari* to support fluid balance and foetal development

By embracing these *Ayurvedic* principles, pregnant individuals can reduce their likelihood of experiencing oligohydramnios and its associated complications.

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