


## CASE REPORT

# Management of Oligohydramnios with the Help of *Ksheerapaka* and *Yashtimadhu Siddha Matrabasti*: A Case Report

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### ABSTRACT

Amniotic fluid protects the baby and helps develop its limb, lung, digestive system, and muscle volume. The volume of amniotic fluid should increase as the pregnancy progresses. Roughly 4% of pregnant women are diagnosed with oligohydramnios. It occurs when the volume of fluid in the amniotic sac is lower than average, usually because the placenta is not functioning properly. It is a very serious complication of pregnancy associated with poor perinatal outcome. An effective treatment for oligo is very needful to grow fetus normally and delivered with no complication. In Ayurveda, oligohydramnios can be compared with *Upavishtaka*, *Nagodara*, and *Garbhashaya* condition in which *Garbhaspandana* and *Anunnatkushita* mentioned by *Acharaya Sushtra* which is due to reduce of liquor. The present case report of primigravida with period of gestation by last menstruation period is 30 weeks 2 days with foetal movement with no history of labour pain, leaking and bleeding per vaginal. On ultrasound significant that single live uterine foetus with cephalic presentation with 30 weeks with resistance in left uterine artery, FHR – 128 bpm, placenta – anterior, grade 2, AFI – 6.7 cm, two loop of cord seen around neck Estimate weight – 1531 ± 327 kg, BPP- 6/8. The patient was treated by *Ksheerapaka* of *Yashtimadhu*, *Bala*, *Ashwagandha*, and *Yashtimadhu Siddha Matrabasti*. This case report revealed that oligohydramnios can be managed by Ayurvedic drug intervention.

## 1. INTRODUCTION

Oligohydramnios is an extremely rare condition where deficiency of liquor amnii <200 ml. Amniotic fluid index is <5 cm, and maximum vertical pocket of liquor is <2 cm. It is associated with an increased risk of umbilical cord occlusion, fetal distress, meconium-stained liquor, operative deliveries, and still birth at term. In ayurveda to management of oligohydramnios at basic line management of *Garbhakshaya*<sup>[1]</sup> and *Garbhashosha* play an effective role with no adverse effect and give quick result also. The use of *Medhya* and *Brimhaniyaahara* plays an important role in reduced amniotic fluid. *Acharya Charaka's* 9<sup>th</sup>-month regimen for *Garbhini* and *Madhura Aushadha Siddha Tail Matrabasti* reduces the incidence of cesarean section and helps in achieving the goal of *Sukhprasava* without any maternal and fetal complication.<sup>[2]</sup>

## 2. CASE REPORT

Personal history - A 31, year-old primigravida with period of gestation by Last menstruation period – 30weeks 2 days with the reduced foetal

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movement since night of 6<sup>th</sup> February 2023 with no history of labour pain, leaking and bleeding per vaginal, patient also complaining mass formation upper part of eyelid for 3 weeks.

### 2.1. History of Present Illness

A XYZ, 31-year-old primi gravid patient, came to prasuti tantra OPD of All India Institute of Ayurveda, New Delhi on 07<sup>th</sup> February 2023 with chief complaints of primi with POG by LMP 30+2 weeks, by USG (October 26 2022) 31+2 weeks for FWB, and by USG (November 07 2022) 31+3 weeks level 2 scan. The patient was first visited to the OPD on 7<sup>th</sup> September 2022 with 7+2 weeks of amenorrhea. The patient is advised to visit regularly for routine follow-up with routine investigation and ultrasound (NT/Nb scan) and to take folic acid orally. As advised ultrasound as a routine antenatal checkup, amniotic fluid was found adequate and all other parameters were also found normal. However, due to dietary habits, negligence and irregular antenatal visit by the patient she developed decreased fetal movement from night of 6<sup>th</sup> February 2023. At morning, the patient visited OPD for diminished fetal movement and ultrasound was done and found single live intrauterine fetus of 30 weeks, reduced amniotic

fluid (6.7 cm), two loop of cord around neck with biophysical profile is 6/8 with FHR 128 bpm for which, patient treated by Ayurvedic management [Table 1].

Past medical/surgical/family history – not significant past history [Tables 2 and 3].

## 2.2. Per Abdominal Examination

On palpation, fundal height was found less than period of gestation of 28 weeks, cephalic presentation, FHR – 144 bpm. Fetal parts were easily felt but failure to ballot into uterus, and no contraction was found.

## 2.3. Antenatal Investigation

All routine blood and urine investigations found normal.

## 3. MATERIALS AND METHOD

### 3.1. Management Protocol

From 9<sup>th</sup> February 2023 onward, the patient was advised to take high protein diet (3), rest in left lateral position, DFMC, Masha, and Mudga yush along with the following management [Tables 4 and 5].

### 3.2. Assessment Parameter

Assessment of the study was done on the basis of impression shown under the ultrasound before and after the management.

## 4. OBSERVATIONS AND RESULTS [TABLES 6 AND 7]

Primi with POG by 30 weeks 2 days came to AIIAAN C OPD with decrease fetal movement and amniotic fluid index <6.7 cm with no contraction and no leaking and bleeding per vagina. After all management protocol, the patient perceived improvement in fetal movement in uterus day by day. On per abdominal examination with each visit, fundal height was improved and 3<sup>rd</sup> *Matrabasti* corresponded to period of amenorrhea. Ultrasound was done on February 17 2023 which mentioned single live fetus of 32 weeks with amniotic fluid index 12.5 cm, fetal heart rate 164 bpm, normal fetal movement present, estimated weight 1890 ± 284 g, and BPP 8/8.

## 5. DISCUSSION

Oligohydramnios is a condition that arises due to the *Kshaya* of *Jala mahabhuta*. *Yashtimadhu*, *Bala*, *Ashwagandha*, and milk having *Madhura Rasa*, *Madhur Vipaka*, *Sheeta*, *Guru guna* can increase *Jalayatva*.<sup>[3]</sup> Hence, patient perceived proper fetal movement and ultrasound evaluation proved marked increment in amniotic fluid index from 6.7 cm to 12.5 cm. Previous sign of fetal distress was also reduced due to *Rasayana*, *Garbhaposhaka*, *Balya*, *Pushtidayaka*, *Jeevaniya*, *Bruhaniya* properties of *Ksheerapaka*, *Matrabasti*, and *Madhumalini Vasant Rasa*.<sup>[4]</sup>

### 5.1. Probable Mode of Action

*Matrabasti* helps in proper functioning of *Apana vayu* so the labor process starts at *Upasthita kala*, and the patient delivered *Avakashira* (vertex presentation) through *Apathyapatha* (vagina) without having any complication to mother and fetus. This outcome fulfills all conditions of *sukhaprasava*.<sup>[5]</sup> *Bala* contains saponin components and fatty acids (precursor of prostaglandins) while *Taila* leads to influx of calcium and neutrophils into cells which is essential for proper uterine contraction and cervical ripening.<sup>[6]</sup> In the trial medicines Amnio acids, flavonoids present which neutralize the free radical that cause damage to foetus, help in growth and nutrition of foetus and also play role in maintenance of normal fluid volume.<sup>[7]</sup>

## 6. CONCLUSION

In present days, oligohydramnios develops very frequently at term and increases the incidence of operative intervention. If the Ayurveda regimen for *Garbhini* is well followed, it reduces its risk. Moreover, in this study, management protocol was found effective in managing oligohydramnios. It helps to increase amniotic fluid, nourishment of fetus, and reducing the risk of operative intervention and thus helps to prevent maternal and fetal morbidity and mortality rate.

## 7. ACKNOWLEDGMENTS:

Nil.

## 8. AUTHORS' CONTRIBUTIONS

All the authors contributed equally in design and execution of the article.

## 9. FUNDING

Nil

## 10. ETHICAL APPROVALS

This study is not required ethical clearance as it is case study.

## 11. CONFLICTS OF INTEREST

Nil.

## 12. DATA AVAILABILITY

This is an original manuscript and all data are available for only review purposes from principal investigators.

## 13. PUBLISHERS NOTE

This journal remains neutral with regard to jurisdictional claims in published institutional affiliation.

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**Table 1:** Personal history

Appetite	Adequate
Sleep	Disturbed
Bowel habit	Regular
Micturition	Clear
Addiction	No any addiction
Allergic history	No allergy to drug or food
Diet	Mixed

**Table 2:** Menstruation history

<b>Painless, regular, moderated bleeding (2 pads/day) for 3–4 days/28+1 days</b>	
Last menstruation period	July 10 2022
Expected date of delivery	April 17 2023
Obstetric history	Primigravida
Married life	7 months

**Table 3:** General examination

<b>General condition</b>	<b>Fair</b>
Blood pressure	98/64 mmHg
Pulse rate	82/min
Temperature	97.6°F
Height	5'4
Weight	44.5 kg
Pallor	Not present
Pedal edema	Absent

**Table 4:** Basti Karma

S. No.	Steps	Procedure	Duration and dose
1.	<i>Poorvakarma</i>	<ul style="list-style-type: none"> <li>● General and per rectal examination</li> <li>● Instructed to eliminate the natural urge</li> <li>● <i>Mridu Snehan</i> and <i>Swedan</i> (on the abdomen and low back region)</li> <li>● <i>Laghu Ahara</i> (<i>Masha and Mudga yush</i>)</li> <li>● Instructed to walk for hundred steps (<i>shatapadi chankramana</i>)</li> </ul>	30 min
2.	<i>Pradhankarma</i>	<ul style="list-style-type: none"> <li>● <i>Yashtimadhusiddha Ghritha Matrabasti</i></li> </ul>	<ul style="list-style-type: none"> <li>● 7 days in the increasing order of dose.</li> <li>● First day 48ml (1 <i>pala</i>), everyday increase 1/4<sup>th</sup> of <i>pala</i> (12 ml), so that on 7<sup>th</sup> day 120 ml dose.</li> </ul>
3.	<i>Paschat karma</i>	<ul style="list-style-type: none"> <li>● Made to lie in supine posture</li> <li>● Massage was done on the abdomen in anticlockwise direction</li> <li>● Instructed to attend the urge during its commencement</li> </ul>	<ul style="list-style-type: none"> <li>● 100 <i>Matra kala</i> (10–15 min)</li> </ul>

**Table 5:** Advised intervention

S. No.	Drug	Anupana	Duration and dose
1.	<i>Madhumalini</i> <i>Vasant Rasa</i>	Warm water	1 <i>Vati</i> BD Morning and evening 7 days
2.	<i>Yashtimadhu, Bala,</i> <i>Ashwagandha</i> <i>Ksheerapaka</i>	-	10 ml Morning and evening 7 days

**Table 6:** *Pratyagaman Kaala of Matrabasti*

Date	Period of gestation	Pratyagaman Kaala
February 09 2023	30 weeks	2 h
February 10 2023	30+1 weeks	1.5 h
February 11 2023	30+2 weeks	3 h
February 12 2023	30+3 weeks	2 h
February 13 2023	30+4 weeks	1.5 h
February 14 2023	30+5 weeks	2 h
February 15 2023	30+6 weeks	3 h

**Table 7:** Before and after assessment of uterine fetus by USG

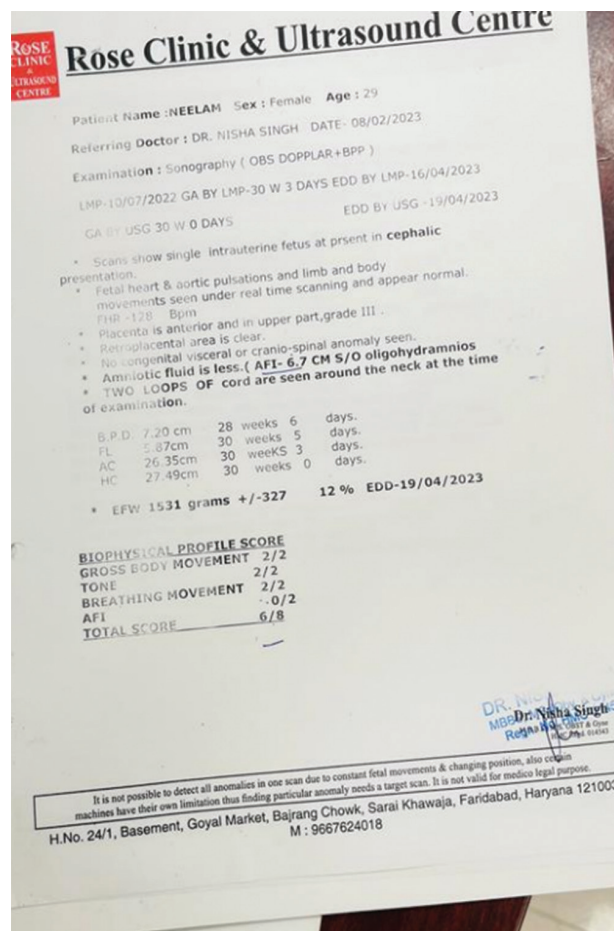
## Before management

USG - FWB (October 26 2022)	Single live fetus in variable presentation with 16+3 weeks FHR – 150 bpm, fetal movement present, placenta – anterior grade I, estimate fetal weight – 154±23 g, umbilical cord – 3 vessels, cord around neck absent, liquor – adequate
USG (November 07 2022) Level 2	Single live fetus in variable presentation with 18+2 weeks, FHR – 147 BPM, fetal movement present, liquor – adequate, placenta – anterior grade I, umbilical cord, 3 vessels, estimate fetal weight – 224±34 g
USG (February 08 2023) FWB+BPP	Single live uterine fetus with cephalic presentation with 30 weeks with resistance in left uterine artery FHR – 128 BPM, placenta – anterior, grade II, AFI – 6.7 cm, two loop of cord seen around neck estimate weight – 1531±327 kg, BPP – 6/8

## After management

USG (February 02 2023) FWB+CD	Single live uterine fetus with cephalic presentation with 32+0 weeks, FHR – 164 BPM  +  Regular, placenta – anterior, grade III, AFI – 12.5 cm, cord around neck absent, estimate weight – 1890±284 kg, BPP – 8/8
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USG: Ultrasonography

**Reports: Before treatment AFI – 6.7 cm, after treatment 12.5 cm**

### Panacea Clinic & Ultrasound Centre

Flow in the umbilical arteries was evaluated which reveals normal S/D ratio, no e/a or any decreased flow, absent flow or reversal in diastole. Good flow was seen in the cerebral arteries. Bilateral uterine arteries show normal low resistance wave form with good diastolic flow.

COLOR DOPPLER & DUPLEX DOPPLER FINDINGS :-				
	S/D RATIO	PI	RI	remark
Umbilical Artery	3.20	1.11	0.69	NORMAL
Mid Cerebral Artery	8.50	1.28	0.88	NORMAL
Right Uterine Artery	1.1	0.69	0.31	NORMAL
Left Uterine Artery	2.7	1.00	1.20	increased

MCA S/D ratio is more than umbilical artery S/D ratio.

**IMPRESSION:-** SINGLE LIVE FETUS OF 30 WEEKS 0 MATURITY +/- 1 WEEK. NORMAL FLOW STUDIES WITH ADEQUATE DIASTOLIC FLOW IN UMBILICAL, MIDDLE CEREBRAL AND RIGHT UTERINE ARTERY WITH BPP SCORE 6/8 WITH MILD OLIGOHYDRAMNIOS WITH INCREASED RESISTANCE IN LEFT UTERINE ARTERY

ADVISE- LFT, Declaration of doctor conducting ultrasonography / Image scanning. I, DR NISHA, the undersigned declare that while conducting ultrasonography/ image scanning on MRS NEELAM I have neither detected nor disclosed the sex of her fetus to anybody in any manner.

Dr. Nisha Singh  
MBBS, MRCOG, DNB, DGO  
Regd. M.D. (Gynae) Regd. 0187

It is not possible to detect all anomalies in one scan due to constant fetal movements & changing position, also certain limitations thus finding particular anomaly needs a target scan. It is not valid for medico legal purpose.

Faridabad, Haryana 121001

### All India Institute of Ayurveda अखिल भारतीय आयुर्वेद संस्थान

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(An Autonomous Organization under the Minister of AYUSH, Govt. of India)

UHID No. : 64749	Receipt No. : 28066
Patient Name : Mrs. Neelam Rawat	IPD No. :
Age / Sex : 33 Years Female	Panel : Credit
Consultant : Dr. Tejaswini	Date : 17/02/2023

**Usg Obstretic Doppler Report**

Indication : FWB + Color Doppler  
LMP : 10/07/2022  
GA (LMP) : 31 weeks 5 days

Findings :-  
Single live foetus in cephalic presentation at the time of scan.  
Foetal cardiac activity is regular (FHR = 163 BPM).  
Foetal movements present.

Foetal Parameters:  
LMP : 10/07/2022  
AGE : 31 weeks 5 days  
EDD by LMP : 16/04/23

BPD measures 7.9 cm corresponding to 31 weeks 5 days  
HC measures 28.9 cm corresponding to 31 weeks 6 days  
AC measures 27.6 cm corresponding to 31 weeks 5 days  
FL measures 6.2 cm corresponding to 32 weeks 3 days

Composite G. Age by USG : 32 weeks 0 days  
EDD by Avg. GA : 14/04/2023  
Estimated Foetal Wt. : 1890 gms +/- 284 gms.

Placenta: Position anterior. No evidence of placenta accreta.  
: Grade- III  
: Lower end away from os

Umbilical: Number of vessels 3  
: Cord around neck is absent

Cervix: Cervix measures 3.5 cms in length  
: Internal os is closed.

Liquor: Adequate  
: AFI = 12.5 cms.

Foetal Anomaly: Fetal cranium is normal. No hydrocephalus. Abdomen is un-remarkable.  
Stomach bubble seen.  
Kidneys, urinary bladder appear normal.  
Visualized limbs are essentially unremarkable.  
Fetal spine is unremarkable.

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### All India Institute of Ayurveda अखिल भारतीय आयुर्वेद संस्थान

आयुष मंत्रालय, भारत सरकार के अंतर्गत स्वायत्त संस्थान  
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Patient Name : Mrs. Neelam Rawat	IPD No. :
Age / Sex : 33 Years Female	Panel : Credit
Consultant : Dr. Tejaswini	Date : 17/02/2023

**Usg Obstretic Doppler Report**

4 Chamber heart seen.

Color Doppler study shows normal flow velocity and waveform in the umbilical artery, vein and fetal MCA. F velocities in uterine arteries are within normal limits.

- S/D ratio in the umbilical artery = 2.6 (normal <3) from 30 - 38 weeks. PI = 0.8
- S/D ratio in the fetal MCA = 4.3 (< 3 abnormal). PI = 1.3
- Right uterine artery: RI = 0.4 and PI = 0.5  
Left uterine artery: RI = 0.5 and PI = 0.6
- Continuous forward flow is seen in umbilical vein.

Biophysical Profile:  
Fetal movement = 2/2  
Fetal Breathing = 2/2  
Fetal tone = 2/2  
AFV = 2/2  
Total score = 8/8

**IMPRESSION: Single live foetus of 32 weeks 0 days duration.**

Declaration of the doctor/person conducting Ultrasound/Image scanning.  
I, Dr. ISHAN BHARTI (Name of the doctor conducting ultrasound) declare that while conducting ultrasound/ image scan Mrs. Neelam Rawat (Name of pregnant woman), I have neither detected nor disclosed the sex of the foetus in any manner.

DR. ISHAN BHARTI  
MBBS MD, RADIO DIAGNOSIS  
DMC REG. NO. 30099

Dr. Ishan Bharti  
Consultant Radiologist  
MD (Radio Diagnosis)

NOT VALID FOR MEDICOLEGAL PURPOSE.  
This is only radiological professional opinion & not a final diagnosis. Xray, USG & CT also have its limitations therefore the report should be interpreted in correlation with clinical & pathological findings.

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