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# Role of *Shatavaryadi Ksheerapaka Basti* in *Garbha Kshaya* - Case Series

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## ABSTRACT

*Garbha Kshaya* comprising of (*Anunnata Kukshi*) fundal height less than the period of gestation and (*Garbha Aspandana*) reduced fetal movement due to reduced amniotic fluid can be taken as fetal growth related disorder mainly IUGR (Intrauterine growth restriction). Ayurveda mentions *Ksheera Basti* (medicated milk enema) as a classical treatment in the management of *Garbha Kshaya*. In this case series, total 3 pregnant patients completing their 7<sup>th</sup> months of pregnancy, with the complaint of intrauterine growth restriction, reduced fetal movement and oligohydraminos were administered with *Shatavaryadi Ksheerapaka Basti*. *Shatavaryadi Ksheerapaka Basti* consists of fine powder of *Shatavari*, *Bala* and *Arjuna* 10 g each made into *Ksheerapaka* form and administered once daily in the morning, for consecutive 10 days. It was observed that after the *Basti* treatment, there was increase in the fetal movements, liquor and also fetal weight. In addition, there was also increase in maternal weight and improvement in fatigue, body ache, etc. From the study it has been observed that, in conditions of *Garbha Kshaya* (IUGR), administration of *Shatavaryadi Ksheerapaka Basti* is beneficial in terms of fetal growth and maternal well being.

**Key words:** Intrauterine growth restriction, *Garbhakshaya*, *Shatavaryadi Ksheerapaka Basti*.

## INTRODUCTION

Ayurveda *Acharyas* have mentioned a set of *Garbhavyapads* (fetal growth disorders) such as *Upavishtaka*, *Nagodara*, *Upashushka*<sup>[1]</sup> etc. which describes disorders related to fetal growth. However, these conditions have been mentioned just after *Sanjatasara* of the *Garbha* (after attaining stability of the fetus), i.e., during 4<sup>th</sup>-5<sup>th</sup> month. Growth restrictions in the later period can be considered as *Garbha Kshaya*.

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*Garbha Kshaya* as stated in the *Dosha-Dhatu-Mala-Kshaya-Vridhhi Vijnaniya Adhyaya* of *Susrutha Samhita*, wherein *Sarva Angavayava Sampurnata* (conspiracy of all fetal parts) has already taken place. The growth restriction in-utero is evaluated with the *Anunnata Kukshi* where the fundal height is less than the period of gestation which is the salient feature of *Garbha Kshaya*.<sup>[2]</sup> Besides this, *Garbha Aspandana* or *Ksheena Spandana* as per *Dalhana* is also mentioned as a feature which could be considered as the reduced fetal activity mainly due to the reduced amniotic fluid. Ayurveda describes a definite classical reference for the efficient management of *Garbha Kshaya*. *Acharya Susrutha* has mentioned the usage of *Ksheera Basti* (medicated milk enema) and *Medhya* (nootropic) drugs from 8<sup>th</sup> month onwards to nourish the growth retarded fetus.

*Ksheera* (milk) is the main element of *Garbhini Ahara* (maternal diet) having all the qualities to nourish both the mother and the fetus. It is considered as the best *Rasayana* (rejuvenator and immunomodulator) and is said to be *Aajanma Satmya* (wholesome throughout

the life, since birth). Drugs given in *Basti* form have specific target action and quick absorption. Drugs in *Ksheerapaka* form makes it the preferred choice of the drug delivery system in pregnancy, as pregnant ladies have low tolerance to various dosage forms and at the same time provide added nourishment. In the *Ksheerapaka Basti* form, maximum absorption of the drug would be ensured under the influence of lactose in the distal small intestine via the paracellular route influenced by ENS<sup>[3]</sup> and thus accordingly positively influence the development of growth retarded fetus.

### CASE HISTORY

**Case 1:** A married female Hindu patient aged 22 yrs in her 34.5 weeks of pregnancy visited the OPD, Department of Prasutitantra and Streeroga of I.P.G.T. & R.A., Jamnagar with the complaint of reduced fetal movements since 3-5 days. Her LMP was on 22/12/16 and EDD on 29/9/17. She was primi gravida with no history of abortion and married life of 10 months. Her vitals were normal. Per abdomen examination revealed fundal height corresponding to 32-33 weeks with longitudinal lie, FHS 138 beats/min, fetal movements were present. Clinically there was a growth lag of 2 weeks. She was sent for USG which revealed early IUGR. The patient was admitted in the I.P.D. and advised *Shatavaryadi Ksheerapaka Basti* for 10 days.

**Case 2:** A Muslim female patient aged 34 years with the complaint of pain abdomen visited the O.P.D., Department of Prasutitantra and Streeroga of I.P.G.T. & R.A., Jamnagar in her 32.2 weeks of pregnancy. It was her first visit to hospital during her ANC period. Her LMP was on 29/11/16 and EDD on 5/9/17. She has 2 daughters aged 9 yrs and 5yrs respectively delivered in home, along with a history of 2 abortions and married life of 12 years. Her vitals were in normal range. On examination, abdomen was relaxed with no signs of contractions. Patient experienced pain during the movement of the fetus. Fundal height corresponded to 28-30 weeks. Fetal parts were palpable more distinctly. Abdomen seemed full with fetal parts giving rise to the suspicion of severe oligohydramnios. Fetal heart rate was 148 beats/min

and fetal movements were normal. USG corresponded to the clinical findings revealing AFI (Amniotic Fluid Index) 5.5cm with EFW (Estimated Fetal Birth Weight) 1.7kg. Patient was admitted for a 10 days course of *Shatavaryadi Ksheerapaka Basti*.

**Case 3:** A 25yr old Hindu female patient in her 33.5 weeks of pregnancy visited the O.P.D., Department of Prasutitantra and Streeroga of I.P.G.T. & R.A., Jamnagar, diagnosed with Assymetrical IUGR with mild oligohydramnios. Her LMP was on 1/8/2016 and EDD on 8/5/17. Patient also complained of fatigue, constipation and pain in calf muscles. She was a multi para with 1 live female baby of 1 ½ years with no history of abortion. She was married for 2 ½ years. Previously she was consulting in a local private nursing home. Her BP was 160/84mm of Hg and no visible pedal edema during her visit to hospital. Fundal height was corresponding to 30-32 weeks, fetal heart rate was 140 beats/min and fetal movements were normal. She was administered with *Shatavaryadi Ksheerapaka Basti* for 10 days after admitting her in the IPD.

**Table 1: Maternal anthropometric parameters.**

Anthropometric Parameters	Case 1		Case 2		Case 3	
	BT	AT	BT	AT	BT	AT
Mid Arm Circumference (cm)	28	28	27.5	27.8	25.4	25.5
Abdominal Girth(cm)	90	92.5	89	92	87	88.2
Symphysis Fundal height(cm)	25.5	26.5	32.2	33.5	25.8	26.6
Weight (kg)	66	67	68	68.8	52.2	53

**Table 2: Ultrasonography findings – fetal biometry**

USG	Case 1		Case 2		Case 3	
	BT	AT	BT	AT	BT	AT
Amniotic Fluid Index (cm)	6	6.8	5.5	6.5	7	7.7

Estimated Fetal Birth Weight (g)	1900	2400	1700	2300	1200	1700
Biparietal Diameter (mm)	81	86	78	84	72	78
Head Circumference (mm)	288	305	275	285	263	275
Abdominal Circumference (mm)	283	305	270	290	242	272
Femur Length (mm)	62	65	58	60	54	56
Gestational Age (weeks)	32.2	34.5	31.4	34.2	28.6	31.6

Table 3: Newborn outcome and measurements

	Case 1	Case 2	Case 3
Type of delivery	FTND	FTND	FTND
APGAR score	1' 7/10 5' 9/10	1' 8/10 5' 10/10	1' 8/10 5' 10/10
Baby weight (kg)	2.6	3.1	2.7
Head Circumference (cm)	32	33.2	32.5
Abdominal Circumference (cm)	30.2	31	30
Chest Circumference (cm)	29.5	30.4	29.5
Mid arm circumference (cm)	8.3	10	9
Length (cm)	48.5	48	50.5
FTND: Full term normal delivery			

Table 4: Shatavaryadi Ksheerapaka Basti ingredients

Drugs	Latin name	Part used	Quantity
Shatavari	<i>Asparagus racemosus</i> Willd.	Root	1 part (10gm)
Bala	<i>Sida cordifolia</i> L.	Whole	1 part

		plant	(10gm)
Arjuna	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Stem bark	1 part (10gm)

Table 5: Ksheerapaka Dravya

Dravya	Parts	Quantity
Ksheera (Cow's milk)	15 parts	450ml
Jala (Potable water)	15 parts	450ml

Table 6: Shatavaryadi Ksheerapaka Basti posology

Procedure	Drug	Form	Dose	Duration	Route
Basti	Shatavari Arjuna Bala Ksheera a Jala	Ksheerapaka	450ml	10 days	Gudamarga

#### Procedure for preparation of Basti

Fine powder of Shatavari, Bala and Arjuna in equal quantity of 10 g each (total 30 g) is boiled with 15 parts of Ksheera (450ml) and 15 parts of water (450ml) under Mandagni (mildfire), until only milk part remains. Thus obtained Ksheerapaka is filtered and used for the Basti procedure.<sup>[4]</sup>

#### Procedure for administration of Basti

The patients were asked to lie down in left lateral position (Vamaparshva) on the Basti table with their left leg in the out stretched posture, while the right leg flexed at the knee. No prior Snehana (oleation) or Swedana (sudation) were administered considering the pregnancy condition. Patient were instructed neither to use pillow nor to keep their hand below the head. The Shatavaryadi Ksheerapaka in luke warm condition was taken in the enema can attached with tube and the end of tube was attached with a rubber catheter (No.8). Anal orifice and tip of the catheter were lubricated with the oil. The tip of catheter is inserted into anal canal of the patient steadily and slowly until it reaches inside up to 3-4 inches. Thereafter, the catheter was held slightly upward position above the anal orifice and the administration

of *Basti* was done slowly without shaking the hand, leaving behind a little quantity of *Basti* drug in the enema can. During the administration of *Basti*, the patient were instructed to take deep breaths. After the administration of *Basti*, the catheter was removed from anal canal, and lower back and buttocks was patted (*Sphiktadana*) 3-4 times. After administration of *Basti*, patient was asked to turn into supine position and rest on the table till she feels the urge for defecation.

## RESULT

**Case 1:** There was remarkable improvement in the fetal movements from the day 1 of the administration of *Basti*. There was also increase in the fetal growth parameters and liquor. The patient continued the pregnancy till term and delivered a healthy female baby on 4/10/16 with the birth weight of 2.6kg.

**Case 2:** Pain in abdomen was relieved and AFI was raised from 5.5cm to 6.5cm. The patient continued ANC checkups and delivered a healthy male baby on 8/9/17 with 3.1 kg birth weight.

**Case 3:** Constipation was relieved completely. Her BP was maintained around 130-140 diastolic and 80-84 systolic throughout the treatment period. Pain in calf and fatigue were also reduced gradually. Routine antenatal care was given in her subsequent visits. Her BP was stable during ANC period. Patient delivered a male baby on 7/5/2017 with birth weight of 2.7 kg.

## DISCUSSION

*Shatavari* has *Rasayana*, *Garbhaposhaka*, *Balya*, *Pushtidayaka* and *Medhya Guna*.<sup>[5],[6]</sup> *Bala* is endowed with *Vata Shamaka*, *Rasayana*, *Ojo Vardhaka*, *Prajasthapana*, *Brimhana*, *Balya* properties.<sup>[7],[8]</sup> *Arjuna* possesses *Hridya*, *Sandhanakara*, *Kshata Kshaya Hara*, *Shonita Prasadana* properties.<sup>[9],[10]</sup> Emphasis of *Ksheera* in *Garbhini* is well known with properties such as *Jeevaniya*, *Rasayana*, *Medhya*, *Balya* and *Brimhana*.<sup>[11]</sup> All the 3 drugs along with *Ksheera* has good impact on the growing fetus.

*Ksheerapaka Basti* with these drugs is found to increase fetal weight by the *Brimhana*, *Balya*,

*Pushtidayaka* (anabolic, nourishing, strengthening) etc. properties by the formation of new tissues and rejuvenating the already formed *Dhatus* (tissues). *Basti* expels morbid wastes present in the intestines thereby relives constipation and boosts the absorption of *Ksheerapaka Basti* ingredients. *Ksheerapaka Basti* acting as *Dhatu Vardhaka* increases the *Rasa Dhatu* and increases the amniotic fluid, thereby pain in abdomen during fetal movement is taken care of. *Arjuna* helps in lowering the hypertension by its anti oxidant and cardio-protective action<sup>[12]</sup> and thereby fetal blood circulation is stabilized thus transferring nutrition to the fetus. *Bala*<sup>[13]</sup> and *Shatavari*<sup>[14]</sup> possess radical scavenging capacity, adaptogenic, immunomodulating and anti oxidant properties and reduces the incidence of pregnancy induced hypertension. *Basti* does the *Vatanulomana* and also normalizes the *Vata*, reliving back ache, pain abdomen etc.

## CONCLUSION

*Shatavaryadi Ksheerapaka* drugs act as *Dhatu Vardhana* by constructive metabolism and thus have a definite action on fetal growth related disorders. It also improves the amniotic fluid, fetal growth, maternal well being and relives fatigue, constipation, body ache etc. Therefore the present case series focusing to use *Shatavaryadi Ksheerapaka Basti*, hoping that these drugs will be more effective in counteracting IUGR with its anabolic properties without any side effects. This study also throws light on the future scope of management of IUGR in Ayurvedic obstetrics practice.

## REFERENCES

1. Srikantha Murthy, editor. Ashtanga Hrudaya of Vagbhata, Sharirasthana, Chapter 2, Verse no.15. 1<sup>st</sup> edition, Varanasi; Chaukambha Krishnadas Academy; 2006:p.382.
2. Priyavrat Sharma, editor. Commentary: Nibhandhasamgraha of Dalhana on Susruta Samhita of Susruta, Chapter 15, Verse no.12. 1st edition, Varanasi; Chaukambha Vishwabharati Oriental Publishers;2000:p.162.

3. M.R.Vasudevan Nampoothiri & L. Mahadevan, Principles and Practice of Basti, 3<sup>rd</sup> edition, Ayurvedic public and charitable trust;2014:p.173.
4. Yadavji trikamji Acharya, editor. Dravyaguna Vignana, 2<sup>nd</sup> edition, Mumbai: Satyabhamabaipanduranga nirnayasagamudrana yantralaya; 1947:p.33-34.
5. Dr JLN Shastri, editor. Illustrated Dravya Guna, (Vol II). Varanasi: Chowkambha orientalia ; Reprint 2012:p.540-542.
6. Dr Gyanendra Pandey, editor. Dravyaguna Vijnana (Vol III). Varanasi: Chowkambha krishnadas academy; Reprint 2004:p.434-437.
7. Dr JLN Shastri, editor. Illustrated Dravya Guna .(Vol II).. Varanasi: Chowkambha orientalia ; Reprint 2012: p.87-89.
8. Dr Gyanendra Pandey, editor. Dravyaguna Vijnana (Vol III). Varanasi: Chowkambha krishnadas academy; Reprint 2004: p.319-321 .
9. Dr JLN Shastri, editor. Illustrated Dravya Guna (Vol II). Varanasi: Chowkambha orientalia ; Reprint 2012: p.1026.
10. Dr Gyanendra Pandey, editor. Dravyaguna Vijnana (Vol III). Varanasi: Chowkambha krishnadas academy; Reprint 2004: p.770-774.
11. Bhavamishra, Bhavaprakasha nighantu(I part). 11th edition, Choukambha sanskrit bhavan; 2010:p.759.
12. S Nammi,, R Gudavalli et al, Possible mechanisms of hypotension produced 70% alcoholic extract of Terminalia arjuna (L.) in anaesthetized dogs, B M C compliment Altern Med 3 (1),5 (2003).
13. Vaidya VM Gogte. Ayurvedic Pharmacology and Therapeutic Uses of Medicinal Plants, Dravyagunavijnana. New Delhi; Chaukhambha publications; 2012: p. 433-435.
14. Sukhdev. A Selection of Prime Ayurvedic Plant Drugs, Ancient Modern Concordance. New Delhi; Anamaya Publisher; 2000:p.83-86.

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