

## MANAGEMENT OF PREMATURE CONTRACTIONS WITH SHATHAVARI KSHEERAPAKA BASTHI – A CASE REPORT

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Received on: 26/07/2020

Revised on: 16/08/2020

Accepted on: 06/09/2020

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### ABSTRACT

Preterm labour is defined as one where the labour starts before the 37<sup>th</sup> completed week (<259 days), counting from the first day of last menstrual period. Premature contraction of the uterus is the very first sign of premature labour and Preterm birth is the significant cause of perinatal morbidity and mortality. In about 50% cases, the cause is not known. As per Ayurveda, *akala prasava*, ie preterm labour, results due to *apana vatha vaigunya*, the type of vatha which helps in *Garbha nishkramana kriya*. *Basthi* is considered as the best treatment for management of vitiated *vatha dosha*. In *Garbhini*, *basthi* is indicated after completion of 7 months of pregnancy. Here, in this study, a 20 year old, primi gravida of 36 weeks of gestation with premature contraction and reduced fetal movements is administered with shathavari ksheerapaka basthi. Per rectal basthi with 300ml shathavari ksheerapaka administered for 3 consecutive days. This was found effective in preventing uterine contractions and further advancement of preterm labour.

**KEYWORDS:** Premature contraction, akala prasava, basthi, shathavari ksheerapaka.

### INTRODUCTION

Labour is a series of events that take place in the genital organs in an effort to expel the viable products of conception, out of the womb, through vagina, into the outer world. It may occur prior to 37 completed weeks, and is called preterm labour<sup>1</sup>.

Premature contraction of the uterus is the first sign of preterm labour. Common causes of preterm labour includes multiple pregnancies, maternal infections, chronic conditions such as diabetes and high blood pressure, however, the exact cause is unknown. According to WHO, every year, an estimated 15 million babies are born preterm and this number is rising. Across 184 countries, the rate of preterm birth ranges from 5% to 18% of babies born. Preventing deaths and complications from preterm birth starts with a healthy pregnancy.

In Ayurveda, the preterm labour can be related to *viprasava*, according to *madhukosha* commentary of *madhava nidana* and *akala prasava*,<sup>[2]</sup> according to *Arunadatta* commentary. A combined effect of healthy and normal *arthava* (female reproductive factors), *shukra* (male reproductive factors), *ashaya* (uterus), *kala* (suitable time for conception) and *ahara* (wholesome food habits) and *Vihara* (wholesome lifestyle) of mother,

leads to the full term delivery of matured fetus. Any abnormality in any of these factors may cause *akala prasava*. *Ayurveda acharyas*, in our classical texts, explained *Garbhini paricharya* in detail, starting from 1<sup>st</sup> month. *Basthi* with *madhura-snigda-vathahara dravyas* is indicated after completion of 7<sup>th</sup> month, this helps in *vathanulomana* and affect the autonomous nervous system for governing myometrium and helps in regulating their function during labour. *Ksheerapaka*<sup>3</sup> has been mentioned in ayurvedic classics for treating *Prasamsamana Garbha* with the symptoms like *parshua prishtha shoola*<sup>4</sup> (pain in flanks and low back), *anaha* (distention of abdomen), *mutrasangha* (retention of urine) etc.

### MATERIALS AND METHODS

Place of the study: Dept of prasooti tantra & streeroga, SKAMCH & RC, Bengaluru.

#### Patient Details

NAME: Mrs.XYZ

AGE: 20

SEX: FEMALE

OPD NO: H 2305

DATE OF ADMISSION: 08/02/2020

MARRIED LIFE: 1 YEAR

**Pradhana Vedana**

Patient with history of 9 months of amenorrhea, complains of intermittent pain abdomen and reduced fetal movements since last evening.

**Anubandha Vedana**

Pain in low back and flanks since 2 days

**Adhyatana Vyadhi Vrittantha**

Patient with history of 9 months of amenorrhea, that is 36 weeks of gestation, visited the OPD of Prasooti tantra and streeroga, SKAMCH&RC, on 08/02/2020, with intermittent pain abdomen and reduced fetal movements since last day evening. It is associated with low back ache and pain in flanks since 2 days.

**Poorvavyadhi Vrithanta**

Not a K/C/O GDM, PIH, thyroid dysfunction, asthma, epilepsy.

**Occupational History**

Nothing significant.

**Vaiyaktika Vruthantha**

**Diet:** non-vegetarian

**Appetite:** good

**Bowel habits:** regular

**Bladder habits:** normal

**Sleep:** regular

**Habits:** tea – once daily

**Rajo Vrithanta**

**Menarche:** 13 years

**Menstrual history:** Regular since menarche

**No. of days of bleeding:** 3 to 4 days

**Amount of bleeding:** moderate

**Length of cycle:** 26-28 days

**No. of pads used on 1<sup>st</sup> day- 2, 2<sup>nd</sup> day- 2, 3<sup>rd</sup> and 4<sup>th</sup> day -1 pad**

**LMP:** 01/06/2019

**Prasava Vruthanta**

**OH:** Primi gravida

**LMP:** 01/06/2019

**EDD:** 07/03/2020

**Investigations**

**Hb%:** 10.2gm%

**Blood group:** B positive

**RBS:** 110 mg/dl

**BT:** 2'15"

**CT:** 5'30"

**HIV:** Non-reactive

**HBsAg:** Negative

**VDRL:** Non-reactive

**Urine examination:** urine routine and microscopic examination – Normal.

**USG on 03/02/2020**

Single live intra uterine fetus of 33-34 weeks gestational age. Cephalic presentation at the time of scan. Placenta is on postero-fundal wall with grade 2 maturity.

**AFI:** 15.2cms.

**EFW:** 2230 grams (+/- 15%)

**SEDD:** 16/ 03/2020

**ON Examination**

The general condition of the patient was apparently healthy. Blood pressure was 110/70mmHg and pulse was 68 bpm. No pallor and edema were present. Per-abdomen examination revealed longitudinal lie with cephalic presentation and fundal height corresponding to 32-34 weeks of pregnancy. Fetal heart rate was found to be 130bpm. Mild uterine contractions lasting for 10-15sec in every 30 min, associated with severe pain was noted. Pain in low back and flanks also noted.

The patient was advised admission in IPD of Prasooti tantra and streeroga ward. She was advised complete bed rest with foot end elevation and light diet. Shathavari Ksheerapaka basthi is planned for the patient.

Fine powder of shathavari (20gm) was boiled with 15 parts of milk (300ml) and 15 parts of water (300ml) until only milk part remains. The above procedure was carried out on mild heat. Thus obtained ksheerapaka was filtered and used for basthi procedure. Shathavari ksheerapaka (300ml) was administered through rectal route very slowly in the left lateral position at 11.30am on 8<sup>th</sup> February 2020. After evacuation of basthi, the patient got slight relief from abdominal pain within 3-4hrs. Ksheerapaka basthi continued for two more days and patient got complete relief with no further pain abdomen, uterine contractions and low back ache. She was under observation for one more day and discharged on 12/02/2020. The patient was advised to report OPD weekly for regular antenatal checkup.

**Basthi Procedure**

Freshly prepared lukewarm shathavari ksheerapaka was administered through rectal route in patient lying in left lateral position. First, the Enema can was attached with the tube along with nozzle. The nozzle was then attached with rubber catheter no. 8 and used for administration of Basti. After that, Basti material was taken in the enema can. Anal orifice and tip of the catheter were lubricated with the Bala Taila and air was removed from tube, nozzle and the rubber catheter. After that, the tip of catheter was inserted into anal canal of the patient steadily and slowly following the curve of the vertebral column until it reached inside up to 3-4 inches. The patient was encouraged for deep breathing. Approximately 15-20 min were taken for the completion of procedure. After administration, the patient was asked to lie in supine position and rest on the table till she feels the urge for defecation. Basti was evacuated within half an hour on those three days. Abhyanga and swedana, ie, pre-operative procedures were not done.

**DISCUSSION**

Increased premature contractions are induced due to *ApanaVata vaigunya*. For alleviating *Vata*, the best method is *Basti*. *Basti* causes evacuation of stools and thereby relieves premature contraction. *Basti* is also indicated in the pregnant women after the completion of 7month of pregnancy under *garbhini paricharya*. *Shatavari Ksheerapaka* is planned in this case study as it shows anti-oxytocic effect by relieving the uterine contractions.

**Action of Shathavari**

Shathavari means 'a plant with 100 roots', has great importance in Ayurveda and is a solution for various health conditions including pregnancy.

Shathavari,<sup>[5]</sup> (*Asparagus Racemosus*) possess madhura and tikta rasa, guru and snigdha guna, madhura vipaka and sheeta virya, which has vatashamaka property on tridoshas.

Shathavari possess rasayana (rejuvenating), balya (strengthening), Garbha poshaka ( fetal nourishment), pushtidayaka (anabolic) properties. This maintains, protects and support the pregnancy.

Shathavari contains phytochemicals that play a good role with anti-fungal, diuretic, anti-tumour, and immune-stimulating properties.

Many studies proven the anti-oxytocic effect of shathavari. Alcoholic extract of shatavari was found to produce a specific block of Pitocin induced contraction, confirming its action as uterine sedative.<sup>[6]</sup>

Shatavarin 1- a glycoside isolated from the roots of Shatavari, was found to be responsible for the competitive block of oxytocin induced contraction of rat, guinea pig and rabbits uteri, in vitro as well as in vivo. The saponin rich fraction obtained from Shatavari was found to inhibit oxytocin induced uterine contractions in-vivo.<sup>[7]</sup>

Infections can induce preterm labor by stimulating prostaglandin synthesis which in turn leads to premature contractions. Methanol extract of Shatavari shows antibacterial activity.

**CONCLUSION**

Shathavari ksheerapaka basthi is found effective in preventing premature contraction. Also improves the perinatal outcome due to its *Balya*, *Brimhana*, *Prajasthapana* and *rasayana* properties.

Administration of shathavari ksheerapaka in the form of basthi is chosen, as large quantity of drug can be taken for its effective action and quick absorption through anal route.

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