



# ROLE OF CASTOR OIL ORALLY AS WELL AS ANUVASAN BASTI IN POST TERM PREGNANCY.

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## Abstract

Castor oil is used in some countries to induce labor, but results on its effectiveness and safety is controversial. This systematic review and meta-analysis aimed to evaluate the effect of castor oil on labor induction and prevalence of vaginal delivery along with investigating its safety. The time taken for normal labor in primigravida is 12h–14 h and latent phase of labor is expected not to exceed more than 8 h. Thus, any intervention that augments and eases labor is well accepted for mother and fetus. *Apana Vayu* is having pivotal role in regulating the process of labor. In this article Role of castor oil orally as well as *Anuvasan Basti* in post term pregnancy described with the help of 3 case studies.

**Keywords:** *Eranda Taila, Anuvasan Basti, Labor*

## Introduction

Induction of Labour (IOL) is one of the main problems in maternal care and is defined as a desire to induce labor in order to end the pregnancy. It might be recommended for various reasons, mainly medical concern such as baby's health or mother's health or for social reasons<sup>1,2</sup>. A variety of methods are used for IOL, such as amniotomy, membrane sweep or artificial rupture of membranes and use of chemical drugs such as prostaglandins and oxytocin which could be applied either alone or in combination. However, some pregnant women prefer traditional methods such as acupuncture or medicinal herbs<sup>3,4</sup>. Castor oil is a natural triglyceride obtained from the seeds of *Ricinus communis* L. plant (Euphorbiaceae), commonly known as castor oil plant, and contains mainly ricinoleic acid (9Z,12R)-12-hydroxyoctadec-9-enoic acid<sup>5</sup>. It is used in some parts of the world in pregnant women for inducing labor<sup>6</sup>.

A study showed that over 50% of those subjected to intervention with castor oil went into active labor within 24 h while in the control group labor percentage was only 4%<sup>7</sup>. On the other hand another observational study which was carried out on data of 10-year follow-up duration with larger population found no beneficial effect for castor oil on labor induction<sup>8</sup>.

## CASE SERIES

### Inclusion-

- 1) post term

### Exclusion

- 1) fibroid
- 2) CPD(Cephalopelvic Disproportion)
- 3) Preclampsia, eclampsia
- 4) GDM

### CASE 1

A woman aged 27 years, primigravida with full term pregnancy having amenorrhea since 40 weeks & 4 days , visited the Department of Prasuti Tantra evum Stri Roga, Ayurvedic College and Hospital. There was no history of bleeding per vaginam or leaking per vaginam. No history of burning micturition or increased frequency of micturition, with these complaints patient was admitted in IPD. She had taken regular Iron, calcium, multivitamin and protein powder, and was immunized by two doses of Tetanus Toxoid. The USG reports depicted normal findings. She had undergone routine investigations like Hb gm%, Urine Routine/Microscopic, ABO Blood Group, Bleeding time (BT), CT (Clotting time), TFT, Serological Test, Human Immunodeficiency Virus (HIV), GTT, Random Blood Sugar (RBS). All reports were with in normal limits.

### Menstrual history

- Duration of menses – 4–5 days.
- Interval of menses – 28–30 days.
- Age of menarche – 13 years.

### Obstetric history: primigravida

- LMP – 14/02/2023.
- EDD – 20/11/2023.

Family History- Father, mother and siblings were healthy.

### Clinical findings

Per abdomen examination: during admission

Fundal height – Term size.

Fetal Part Presentation – Cephalic (not engaged).

FHR – 140 bpm (beats per minute) (regular).

Uterus – Irritable.

**Per vaginam examination: during admission**

Cervix – not dilated, 10-20 % Effaced, Membranes +, Pelvis– Adequate.

Patient was admitted and given castor oil 30 ml orally and 50 ml Anuvasana basti rectally , kept under close observation for vital signs, fetal heart sound & uterine contractions. There was pain subsided with increased intermittent uterine contractions. There was very fast progress in cervical dilatation and effacement.

**CASE 2**

The reported case is 38 years old married, non smoker, primigravida with full term pregnancy having amenorrhoea since 40 weeks , visited the Department of Prasuti Tantra evum Stri Roga, Ayurvedic College and Hospital. There was no history of bleeding per vaginam or leaking per vaginam

**Personal History:**

Case of female with personal history revealed regular bowel habit and sound sleep. Her appetite was reduced and the Tongue was mildly coated. Her blood pressure: 110/70 mmhg, pulse rate: 86 bpm and BMI: 22kg/m<sup>2</sup>. She is Pitta Kaphaprakruti with Madyamasatwa and Madyamakosta. In view of symptoms of irregular menstruation with reduced quantity of bleeding and low AMH diagnosed as Dhatu Kshayajanyavandyatwa.

**Menstrual history:**

**Menarche:** At 14 years of age

**LMP:** 02/03/2023

**EDD -** 08/12/2023

**Menstrual cycle:** 2-3days/28-40 days.

**Per vaginam examination: during admission**

Cervix – 1 cm dilated, 10% Effaced, Membranes +, Pelvis– Adequate.

Patient was admitted and given castor oil 30 ml orally and 50 ml Anuvasana basti rectally , kept under close observation for vital signs, fetal heart sound & uterine contractions. Elderly primigravida remains a high risk pregnancy and the incidence is high. They were significantly associated with adverse pregnancy outcomes and operative obstetric interventions. But with the help of castor oil and basti There was pain subsided with increased intermittent uterine contractions. There was good progress in cervical dilatation and effacement.

**CASE 3**

A woman aged 29 years, 2<sup>nd</sup> gravida with full term pregnancy having amenorrhoea since 40 weeks and 3 days, There was history of unnecessary bear down that can increase vaat visited the department of Prasuti Tantra evum Stri Roga, Ayurvedic College and Hospital. There was history of bleeding per vaginam or leaking per vaginam. No history of burning micturition and history of increased frequency of micturition, with these complaints patient was admitted in IPD. She had taken regular Iron, calcium, multivitamin and protein powder, and was immunized by two doses of Tetanus Toxoid. The USG reports depicted normal findings. She had undergone routine investigations like Hb gm%, Urine Routine/Microscopic, ABO Blood Group, Bleeding time (BT), CT (Clotting time), TFT, Serological Test, Human Immunodeficiency Virus (HIV), GTT, Random Blood Sugar (RBS). All reports were with in normal limits.

**Menstrual history**

- Duration of menses – 3-4 days.
- Interval of menses – 28–30 days.
- Age of menarche – 15 years.

LMP - 20/02/2023

EDD - 26/11/2023

**Per vaginam examination: during admission**

- Cervix – 3cm dilated, 20 % Effaced, Membranes +, Pelvis– Adequate.

There was history of unnecessary bear down that can increase vaat, so Patient was admitted and given castor oil 30 ml orally and 50 ml Anuvasana basti rectally for vatanulomana , kept under close observation for vital signs, fetal heart sound & uterine contractions. There was pain subsided with increased intermittent uterine contractions. There was gross increase in cervical dilatation and effacement

**Discussion**

According to *Acharya Bhela*, for augmentation of labor *Anuvasana Basti* with *Tikshna Taila* (pungent oil) should be given<sup>9</sup>. *Eranda* has aphrodisiac properties and *Vatahara*<sup>10</sup>. rejuvenating, causes detoxification of *Yoni* (reproductive tract), alleviates *Vata* and *Kapha* and vitiated *Dosha* especially from lower . *Basti* is given through anal canal then it begins its action from rectum. The upper 1/3<sup>rd</sup> of the rectum is drained into the portal vein. While the lower 2/3<sup>rd</sup> is drained into inferior iliac vein that goes directly in the inferior vena cava (thus bypassing the liver) . Thus, by giving medicine through anus we can bypass the liver and medicine works with its undisturbed *Virya* (active principle) in a more effective way. *Guda is Moola* of *Siras*, therefore, the active principle of *Eranda Taila* get absorbed and augments the *Aavi* (uterine contractions). *Erand Taila* by its *Ushna Virya* and *Tikshna Guna* reaches to all the minute channels there by causes *Vatanulomana* (maintains normalcy of *Vata*)<sup>11</sup>. As vitiation of *Vayu* has been considered as major aetiological factor for delayed progress of labor<sup>12</sup> and *Basti* is regarded as best treatment of *Vata* vitiation<sup>13</sup>. It stimulates enteric nervous system by exerting local action in gastrointestinal tract by operating through large intestine and thereby exerts systemic action. Basti karma can activate the autonomic nervous system that further helps to stimulate uterine contractions

**Conclusion**

Castor oil orally and as anuvasana basti rectally is an effective substance for induction of labor, in post-date multiparous women in an outpatient setting. Castor oil is extracted from the seeds of the *R. communis* plant. The main ingredient of the extract is the ricinoleic acid (RA) accounting for approximately 90% of the raw extract. It is known that RA increases the intestinal motility and gastrointestinal mucosal permeability. One study suggested that RA mediates its effect on the gut and labor initiation .

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