

The Effect of *Langalikanda Moola Kalka Lepa* Application for Induction of Labor- A Case Study

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ABSTRACT

The induction of labor is now a day's part of the daily obstetric routine. In today's era safe and healthy motherhood is a challenge and forming a major area of concern. WHO has been warning about the rising of C-section in the world and recommends that county should maintain a rate of 10-15%. The efficacy *Langali kanda moola kalka lepa* application on cervical status and duration of stages of labor and pattern of uterine contraction was evaluated. The therapeutic intervention shortened the duration of three stage of labor and had significantly result as compared to standard data.

OUTCOME-Appropriate timing and method of induction, Vaginal mode of delivery, optimal maternal and perinatal outcome.

KEYWORDS: *Pregnancy, induction of labor, Bishop's score, Langali kanda moola kalka*

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INTRODUCTION

Women is epitome of love, care and the most distinct quality she possess, the ability to make life beautiful. Pregnancy is the gift of the God It is unparalleled privilege. Everyone aspires that end of this pregnancy journey should be smooth and comfortable with minimum pain, discomfort and interventions. Expenditure of C-section is increasing in many countries around the world. In the present scenario with drastically increasing rate of cesarean section, more number of instrumental deliveries, routine use of episiotomy as well as poor pain tolerance, sedentary life style. poor bearing down effort, demand of elective cesarean section has raised. To reduce the discomfort Ayurveda has abundant knowledge to give to human kind, so that they can lead a healthy life as designed by nature and has described many drug to speed up the birth process for the sake of natural vaginal delivery with minimal aids, by following ayurveda antenatal care regimen (*garbhini paricharya*)¹, We can fulfill the desire of

having natural and safe delivery with healthy progeny., so efforts have been made since time immemorial to ease the plane to make the event happy and comfortable.

AIMS AND OBJECTIVE-The study was designed to evaluate the effect of *Langali kanda moola kalka lepa*² for evaluating their effect on progress, duration of stages of labor and pattern of uterine contraction for induction of labor as well as to evaluate the augmentation of labor.

CASE REPORT- A 21 year old female patient with amenorrhea of 38 weeks 2 days came to OPD of prasuti and stree roga department SVMAMC Ilkal with the C/O of on and off abdominal pain which radiate toward lower limb since 2 hours and 2 times loose motion since morning.

Obstetric history- G1P0L0A0D0

On examination –Per abdomen-

Uterus – 37-38weeks
 Presentation-Cephalic
 Head- engaged
 Contraction – mild
 Per vaginal – Cervical dilatation – No
 Cervical Effacement-no
 Cervical position- posterior
 Cervical consistency-firm
 Head station =-3

LABORATORY INVESTIGATIONS-

1. Blood group and Rh A+ve
2. Hb-12gm%
3. Platelet count – 3 lakh /cumm
4. BT-2min 30 sec
5. CT-4 min 20sec
6. RBS- 81mg/dl
7. HIV, VDRL, HBsAg – Negative
8. USG- (third trimester) A single live intra uterine gestation about 37 weeks 2 days

Adequate internal growth BPP-8/8

Urine and microscopy – Normal

Prasava paricharya- *Langali kanda moola kalka lepa* applied over the *nabhi*(umbilicus), *basti*(bladder)

whole gravid uterus in latent phase of labor and repeated throughout the labor process 5 times lepa was applied in this case.

Preparation of lepa – *Langali kanda moola churna* (powder) was taken around 15-20gm in bowl by adding a luke warm the drug was made into paste and was applied over *nabhi*, (umbilicus,) *basti* (bladder) and whole gravid uterus

Assessment criteria –

1. Duration of stage of labor
2. Bishop’s score
3. Observe for PPH- Present or absent.

OBSERVATION AND RESULT –Effect of therapy on intensity of pain felt by patient –

Patient felt moderate and tolerable pain

Effect of therapy on pattern of uterine contraction

The pattern of uterine contraction was 3-5 contractions per 10 min with mean duration of 40-45sec with moderate intensity in active phase of labor and same pattern was maintained throughout the active phase. Ideally 3-5 contraction /10 min with duration of 45 sec has been defined as adequate for normal labor³. In this study it is observed that duration and frequency of contraction not increased but total duration of stages of labor was significantly decreased.

Effect of therapy on bishop’s score –Favourable bishops score⁴

		Score		
Time	6:00Am	10:00Am	2:00Pm	3:30Pm
Cervix				
Dilatation(cm)	2-3cm	4-5cm	6-7cm	7-10cm
Effacement (%)	30-40%	60-70%	80-90%	100%
Consistency	Firm	Medium	Soft	Soft
Position	Posterior	Medline	Anterior	Anterior
Head station	-1	0	+1	+1, +2
Lepa application	2 nd time	3 rd time	4 th time	5 th time

Duration of stages of labor-

Duration of 1st stage-10 hour 30sec

Duration of 2nd stage- 1:40min

Duration of 3rd stage – 5 min

Fourth stage of labor-uneventfull

Discussion –

1st application of *lepawas* at 4:30Am when cervix was tubular. *Langali moola* contain chemical constituents like –major constituents-Colchicine&superbine minor constituents- B-sitostosterol⁵having action on uterus and cervix such as,

Action on uterus –adequate contraction.

Action on cervix-

Cervical dilatation- drug help for smooth muscle contraction in turn help for cervical dilatation.

Cervical effacement-Action of drug was on *apanavayu* it does *akunchana* (contraction) and *prasarana* (relaxation) (*karm*)⁶*work*due to which the descent of fetus and there by upward pull of cervix over the lower segment takes place, thus helping in effacement of cervix.

Cervical consistency-drug turn cervix favorable for easy delivery.

Cervical position- Drug help for initiation of mechanism of labor by acting on *ApanaVayu*.

Head station-As drug act on *ApanaVayu*, stimulates the *aavithus* helps for further progress of labor. Due to uterine contraction and further effect on cervical position fetal head station was observed.

Fetal heart rate – 130-145 bpm

Post partumhaemorrhage-Absent

Liquor colour- clear

Apgar score—0th min-9/10, 1st min- 9/10, 5th min-10/10

The aim of Antenatal care is to deliver healthy normal baby with safe and normal mother

Lepa Kalpana which is explained under Bahirparimarjana chikitsa, which has applied over the skin and was prepared with dry drug the importance of lepa is highlighted like how the fire ceases after pouring water in the same way dosha get subsided after applying lepa.

The lepa which is applied in the direction opposite to the hair follicle will enter into hair follicle, (swedavahini) sweat glands and (Siramukh) capillaries and the action of drug is carried out.⁷

Acharya Sushrut in *dhamaniprakaranaadhyaya* explained *Tiryaggadhamani*(veins), each one of four *dhamani* spreading side wards/ transversely divided into hundred and thousand of branches and become innumerable by this the body is covered like network, bound, pervaded, their openings (*siramukha*) are attached to *romakupa* which carry *swedavahini* (sweting)and replenishes rasa inside and outside, through this only veerya of drug used for lepa enter into body by the action of *bhrajaka pitta*⁸

Mainting the *ApanaVayu* normalcy is important any *vaigunya* in *ApanaVayu* lead to *prasavavyapada*.

In the modern science absorption, it through the skin is occur by stratum corneum, secretory gland and hair follicle the tropical application have advantage like it avoid the first pass metabolism.

Result – Patient delivered a live full-term male baby having weight 3kg by vertex presentation at 4.48pm on 06/08/2022.

Conclusion-The *lepa*(paste)therapy shortened the duration of 3 stages of labor and significant effect as compared to standard data, so it can be concluded that therapy has good effect on cervical ripening as well as uterine contraction. The therapy reduces the pain felt by pregnant women felt during the course of labor and this effect might be due to counter irritant effect of certain ingredients of *lepa*(paste)and antispasmodic activity of ingredient which causes good relaxation of uterus between contraction. So it reduces pain and agony of the labour and make patient comfortable.

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