



DIAGNOSIS OF DYSFUNCTIONAL LABOUR AND ITS CLINICAL MANIFESTATION BY PARTOGRAPH: MODERN AND AYURVEDIC PERSPECTIVE

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ABSTRACT

Labour can be the most dangerous journey a human ever undertakes. To overcome the maternal and fetal mortality and morbidity Partograph is being used as a tool which serves the warning of impending problems and helps to take early decisions such as surgical interventions. In ancient period no such technique was available but *Ayurveda Acharya's* have mentioned the signs and symptoms within the woman through which we can assess the dysfunctional of labour; which closely resembles to modern science and these sign and symptoms help to take decision regarding essential surgical intervention like *Udarpatan Shashtrakarma, Vitapchedan, Yoniprasaran* etc. This article presented modern and Ayurveda concept to diagnose the labour progress.

KEYWORDS: Partograph, Ayurveda, Labour, *Udarpatan Shashtrakarma, Vitapchedan, Yoniprasaran.*

INTRODUCTION

Labour is the culmination of pregnancy. In last 04 decades there has been a steady decline in the rate of vaginal deliveries due to the changes in the management of obstetric conditions. The situation is so alarming that one day normal vaginal delivery may become extinct; so to overcome the intrapartum complication and to make early decisions Partograph is being used to assess the progress of labour.

Except Partograph no other tool was available regarding to access the progress of labour. *Ayurveda acharyas Charaka, Sushruta, Vagbhata and Kashyapa* has mentioned the clinical signs and symptoms which may be used to conduct the labour progress. The normal labor stages are explained under *Prajayini, Upasthitaparasava, Prajanyishyamana Avastha*. The dysfunctional labour symptoms closely resembles to the symptoms described under *Mudhagarbha, Mrutagarbha* and *Garbhasanga* etc. The signs and symptoms which are essential to conduct surgical intervention mentioned as; *Udarvipatan, Shashtrakarama, Vitapchedan, Yoniprasaran* also help to diagnose the normal and dysfunctional labour.^[1-6]

Modern Aspect to Diagnose Progress of Labour by Partograph

Definition

A Partograph is the graphical record of Cervical dilatation (c. m.) against duration of Labour (Hours). The Graph should be typical sigmoid or 'S' shaped curve.

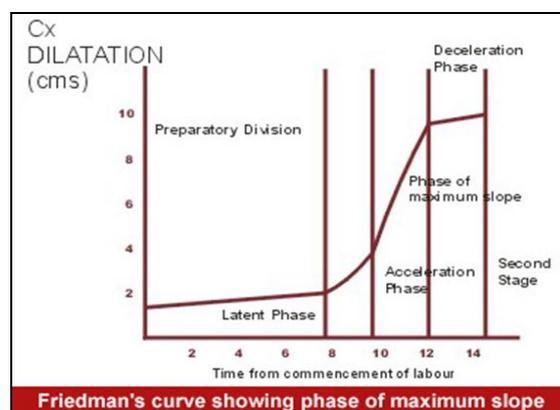


Figure 1. Typical Partograph.

Objective of Partograph Technique

- Early detection of abnormal progress of a labour.
- Prevention of prolonged labour.
- Helps in early decision on transfer, augmentation or termination of labour.
- Early recognition of maternal or fetal problems.

- The partograph is highly effective in reducing complications from prolonged labour in the mother to prevent postpartum hemorrhage, sepsis, uterine rupture and also beneficial to reduces chances of death, anoxia, infections in newborn.

Components of the Partograph

- Part 1:** Fetal condition (at top)
- Part 2:** Progress of labour (at middle)
- Part 3:** Maternal condition (at bottom)

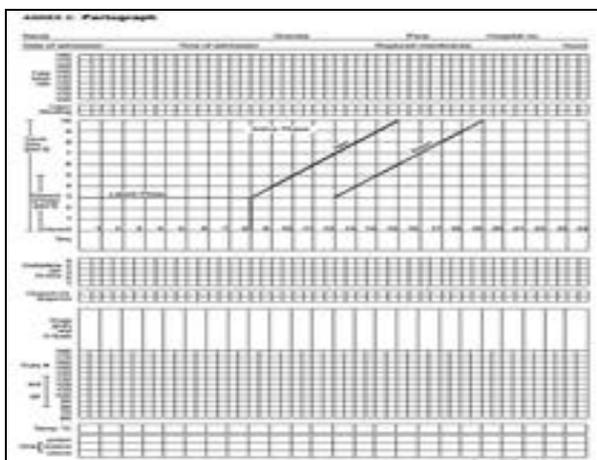


Figure 2. Fetal Condition (Part 1).

- 1 - Fetal heart rate/half hour.
- 2 - Membranes and liquor:

Conditions

- Intact membranes: "I"
- Ruptured membranes: "ROM"
- Meconium-stained liquor: "M"
- Blood stained liquor: "B"
- Absent liquor: "A"

Sign

3 - Molding of the fetal skull bones:

Conditions

- Sutures felt easily: O
- Bones just touching each other: +
- Overlapping bones: ++
- Severely overlapping bones (notable): +++

Sign

Part 2: Progress of Labour

- Cervical dilatation
- Descent of the fetal head
- Uterine contractions

Part 3: Maternal Condition

- Name / Age / Gestation.
- Pulse, Blood pressure, Temperature, Urine volume, Analysis for protein and Acetone.

Latent Phase

- It starts from onset of labour: 2.5 To 3 cm
- In Nullipara: 8 Hrs(Max.20 Hrs)
- In Multipara: 5 Hrs(Max.14 Hrs)

- If >20 Hrs: Prolonged Latent Phase.

Active phase

From 3 cm to Full Dilatation.

It is divided into 3 phases

- Acceleration phase: 2.5-4 cm
- Phase of Maximum Slope: 4-9 cm
- Phase of Deceleration: 9-10 cm

When labor goes from latent to active phase, plotting of the dilatation is immediately transferred from the latent phase area to the alert line as shown below:

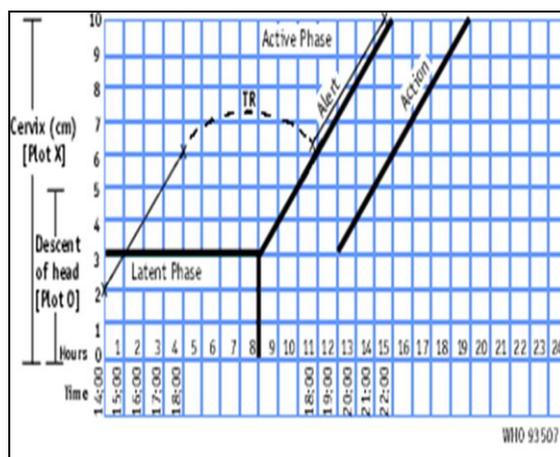


Figure 3. Alert line.

The alert line drawn from 3 cm dilatation represents the rate of dilatation of 1 cm / hour moving to the right or the alert line means referral to hospital.

Action line (hospital line)

The action line is drawn 4 hour to the right of the alert line and parallel to it. This is the critical line at which specific management decisions must be made at the hospital.

Descent of the fetal head

The rule of fifth means the palpable fifth of the fetal head are felt by abdominal examination to above the level of symphysis pubis. When 2/5 or less of fetal head is felt above the level of symphysispubis, this means that the head is engage.

Diagnosis of Dysfunctional Labour by Partogram

Moving to the right of Alert Line, this means warning which suggests immediate hospitalization. While action line, suggest possible danger.

1. Prolonged latent phase

- >20 Hrs=Primi.
- >14 Hrs=Multi.

Causes: unripe cervix, false pains, sedation, inertia.

1. Prolonged active phase

<1.2 cm/Hr = Primi.

<1.5 cm/Hr = Multi.

Causes: Malposition, CPD, Hypotonic Contraction, Anaesthesia.

2. Secondary arrest of cervical dilatation

Cessation of dilation >2Hrs. (mostly seen in CPD).

3. Secondary arrest of head descent

During 2nd stage seen in CPD.

4. Protracted Descent

< 1 cm / Hr= Primi.

< 2 cm / Hr= Multi.

Causes: CPD, macrosomia, less bearing down efforts by mother.

5. Precipitous Labour

> 5 cm / hr = Primi.

> 10 cm / hr = Multi.

Complications: It leads to trauma to birth canal, fetal distress and postpartum hemorrhage.

Ayurvedic Aspect of Normal and Dysfunctional Labour

'Labour' word is mentioned as 'Prasava' in Ayurvedic texts. Various *Samhitagrathas* like *charaksamhita*, *sushrutasamhita*, *ashtanghridayam*, *ashtangsamgraha*, *kashyapasamhita*, has mentioned the signs and symptoms of normal stages of labour under *PrasavaAvastha*. The normal and abnormal progress of labour may be diagnosed by maternal conditions:

The clinical features of stages of labour are described under 3 Avastha.**1. PrajayiniAvastha (Prasavotsuk)**

Laxity of abdomen/flanks, release of bond of *hridaya*, pain in thighs.^[4]

2. Assnprasava/upastithaprasava^[5]

Fatigued	Languid face
Droopy eyes	Lightening
Uterus comes down	Heavy lower abdomen
PV discharge	Pain in loin, urinary bladder, sacral region, flanks, back.
Anorexia	Labour pains.

Excretion of liquor amni.

- Intrauterine fetal situation.^[6]
- Features after descent/internal rotation (*Parivartitgarbh*).^[7]
- Leaves *hridaya*, descends in lower abdomen and stays at bladder, increased labour pain.

Fetal movement was only the criteria which used for assessing fetus in utero. Slow movement of fetus is mentioned as following terms:

Linagarbha

Fetus being sleepy or idle does not quiver.^[8]

It is correlated with uterine hyper stimulations and prolonged latent phase or uterine inertia which delay labor results in asphyxia to fetus.

- In case of failure of descent there is condition with displaced *Doshas* and *dhatu*s with predominance of *Kleda*, thus more vulnerable for diseases and sorrows.^[9,10]
- *Garbhsang* (delayed labour).^[11]
- Intrapartum fetal death and mal presentation (*Antarmruta/MudhaGarbha*).

Sushruta said that due to physical or psychological diseases of mother or its own disorders the fetus dies in uterus and mother shows the following signs and symptoms like cold body, hallucinations, severe abdominal pain, foul smell breath, dyspnea, swelling over face and feet etc.^[12]

Management during dysfunctional labour

In *Ayurvedic granths*, management of obstructed fetus in utero, intrauterine fetal death is mentioned by *Udarvipatanashashtrakarma*, *Yoniprasaran*.^[13-15] which resemble to caesarian, section, episiotomy.

Thus by all these signs and symptoms the labour procedure was conducted as possible as its best. The surgical interventions were done by using these signs which shows that *Ayurveda* has its own diagnostic techniques which helps to assess the progress of labour and also serves the warning signs helping to take early decisions.

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