# PROLONGED LABOUR

**OBJECTIVES**

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* Causes
* Predisposing factors
* Signs and symptoms
* Diagnosis
* Medical management
* Nursing management
* Complications
* Prevention

***Definition***

Prolonged labour is active labour with regular uterine contractions and progressive cervical dilatation which lasts 20 hours or more in primigravidas and 14 hours or more in multigravidas.

The prolongation includes prolonged cervical dilatation in the first stage and inadequate descent of the presenting part during the first and second stage of labour.

***Causes***

The causes of prolonged labour are described as 4 P’s. They include

1. Passage-This includes an abnormal pelvis eg contracted pelvis, tumors, cephalopelvic disproportion ,cervical dystocia (difficult labour and delivery caused by mechanical obstruction at the cervix), and full bladder.
2. Passenger-This includes fetal abnormalities i.e congenital abnormalities like hydrocephaly, malpresentations e.g breech, malpositions, macrosomia (big baby)
3. Powers-Includes abnormal uterine contractions such as uterine inertia (inefficient uterine contractions) or uncoordinated uterine action.
4. Psych-This refers to the psychological status of the mother.Severe anxiety and stress can cause prolonged labour.

***Predisposing factors***

-Pushing during first stage can cause prolonged second stage due to poor maternal efforts as a result of exhaustion.

-Advanced or very low maternal age. A very young body is not anticipating a birth and hence is not prepared or strong enough to give birth whereas mothers who give birth for the first at an advanced age are at risk of health complications such as gestational diabetes that could lead to macrosomia.

-Obesity-This predisposes one to gestational diabetes.

-Injudicious early administration of sedative and analgesics before the actual active labor begins

***Signs and symptoms***

Includes the signs and symptoms of maternal distress eg

1. Anxious look with sunken eyes
2. Dry tongue
3. Acetone smell in the mouth
4. Hot dry vagina often with offensive discharge
5. Scanty high colored urine with presence of acetone
6. Rising pulse rate of 100beats per minute or more

NOTE-These signs of maternal distress occur due to dehydration as a result of prolonged & excess uterine contractions that cause stress on the body.

***Diagnosis***

-Prolonged labour is a manifestation of an abnormality and the cause should be detected by a thorough abdominal and vaginal examination together with patographic analysis of labour. This is done to identify the causes and predisposing factors of prolonged labour.

-Intranatal radiography can be done to help determine the fetal station and position together with the shape and size of the pelvis.

-Prolonged first stage is defined as one that lasts for more than 12 hours .It’s diagnosed when the rate of cervical dilatation is sluggish to less than 1cm/hr in a nullipara and less than 1.5cm/hr in multipara.It’s also diagnosed when there is slow descent of the head(normal 1cm/hr in primigravidas and 2cm/hr in multigravidas)

-A prolonged second stage is defined as one that lasts for more than 2hrs in a primigravida and 1hr in a multigravida.It’s diagnosed when

1. There is sluggish or nondescent of the presenting part even after full dilatation of the cervix.
2. There is variable degrees of moulding and caput formation in cephalic presentation.

-A prolonged third stage is diagnosed when there is delayed placental detachment.

***Medical management***

-When progress is slow, the cause should be established first before deciding on management.

-In case of inefficient uterine action,ambulation should be encouraged as it has been proved to increase contractions.

-An upright position for the laboring mother has also been proved to improve the application of the presenting part on to the cervix and triggers the neuroendocrine reflex that makes contractions less painful but stronger and more efficient.

-When poor progress of labour is due to hypotonic inefficient contractions,augmentation with oxytocin helps increase the strength and frequency of contractions.Augmentation is done after cephalopelvic disproportion has been ruled out.Close monitoring is done for early identification of hyperstimulation of the uterus.

-Adequate analgesia should be offered to the mother to manage the unbearable pain.An intramuscular injection of pethidine is given or an epidural block can be done.

-Maternal vital signs should be monitored i.e Temperature (2-4 hourly), pulse rate (every 30 minutes), respirations (4hourly),and blood pressure (4hourly), for early identification of any deviations from normal.

-Fetal heart rate is monitored every 30 minutes for early identification and management of fetal distress.

-Measure the urine volume every 2-4hours and encourage the mother to void regularly so as to avoid having a full bladder that could prevent descent of the fetal head.If unable to pass urine catheterization should be done.

-Incase of ruptured membranes,broad spectrum antibiotics are administered as prophylaxis against sepsis.

-Intravenous fluids eg normal saline is given to keep the mother hydrated.

-Progress after augmentation is monitored by performing vaginal examination every 4hours noting cervical dilatation,descent of the presenting part,degree of moulding and colour of the liquor.

-If there is no descent after augmentation

1. Assisted delivery through vacuum extraction can be done if the head is not more than 1/5 above the symphysis pubis
2. A caesarean section delivery is done if the head is more than 3/5 above the symphyis pubis.

-In case of prolonged second stage,assisted delivery can be done or caesarean section in case of evidence of cephalopelvic disproportion.

-In case of prolonged third stage,active management is performed.

***Nursing management- Nursing care plan***

1. Assessment

-Assess the mother for signs of exhaustion,anxiety,extreme pain.

-Take history from the mother about the labour and previous complications.

-Do a physical examination

-Assess the mother’s vital signs.

1. Nursing diagnoses

-Acute pain related to prolonged labour as evidenced by the mother’s verbalization of pain.

-Anxiety related to the process and outcome of labour as evidenced by the mother’s increased concern about procedures and equipments.

-Knowledge deficit related to the process of labour as evidenced by the mother asking many questions.

-Risk for infection.

1. Planning and goals

-Alleviate anxiety

-Reduce the risk of infection

-Monitor progress of labour

-Minimize pain

-Increase the mother’s knowledge of the labour progress.

1. Nursing interventions

-Monitor the progress of labour using a patograph to note any abnormalities.

-Encourage the mother to express her concerns so as to alleviate anxiety

-Give back rubs to alleviate paim

-Observe asceptic technique to reduce the risk of infections

-Educate the mother about labour process to increase her knowledge

1. Evaluation/Expected outcomes

-Reduced anxiety

-No infections

-Minimal pain

-Increased knowledge

1. Documentation

Document all the procedures done to the patient and the findings in the patient’s file.

***Complications of prolonged labour***

Maternal complications

* Pueperial sepsis because of early rupture of membranes that predisposes one to infections
* Uterine rupture because of prolonged contractions
* Genital fistulas because of excess friction in case of prolonged second stage
* Postpartum hemorrhage that could occur due to poor uterine tone.

Fetal complications

* Neonatal sepsis due to early rupture of membranes
* Fetal distress due to hypoxia as a result of diminished uteroplacental circulation
* Intracranial hemorrhage following prolonged stay in the perineum

***Prevention of prolonged labour***

-Proper monitoring of labour using a patograph

-Early identification of those at risk