Abnormal labor

Objectives

At the completion of this presentation, the participant   should know:

1 – Definition of abnormal labour and its causes.

2 – Abnormalities of the various stages(first and second) and phases of labour (latent and active phase).

3 – Uterine dysfunction and its various types (hypertonic, hypotonic ,ect)

4 – Risk factors for poor progress in labour

Dystocia

  Dystocia : Literally , difficult labour. Characterized by abnormally slow progress of labour.

   Labour become abnormal when there is poor progress (as evidenced by a delay in cervical dilatation or descent of The presenting part, and / or the fetus shows signs of compromise ,similarly by definition, if there is malpresentation ,a multiple gestation, a uterine scar ,or if labour has been induced , can not be considered normal.

Causes :-

4 distinct abnormalities that may exist singly or in combination.

   1 – Abnormalities of the expulsive forces (power) either uterine force insufficiently strong or inappropriately coordinated to efface or dilate the cervix. (Uterine dysfunction) , or inadequate voluntary muscle effort during the second stage of labour.

   2 – Abnormalities of presentation, position, or development of the fetus(the passenger).

   3 – Abnormalities of the maternal boney pelvis i.e pelvic contraction (passages).

4 – Abnormalities of birth canal that form an obstacle to fetal descend (passages).

Normal labour usually divided into :

1 – Latent phase : usually little cervical dilatation but considerable changes taken place in the connective tissue components of the cervix.

2 – Active phase : Friedman subdivided the active phase into acceleration phase, phase of maximum slope and the deceleration phase.
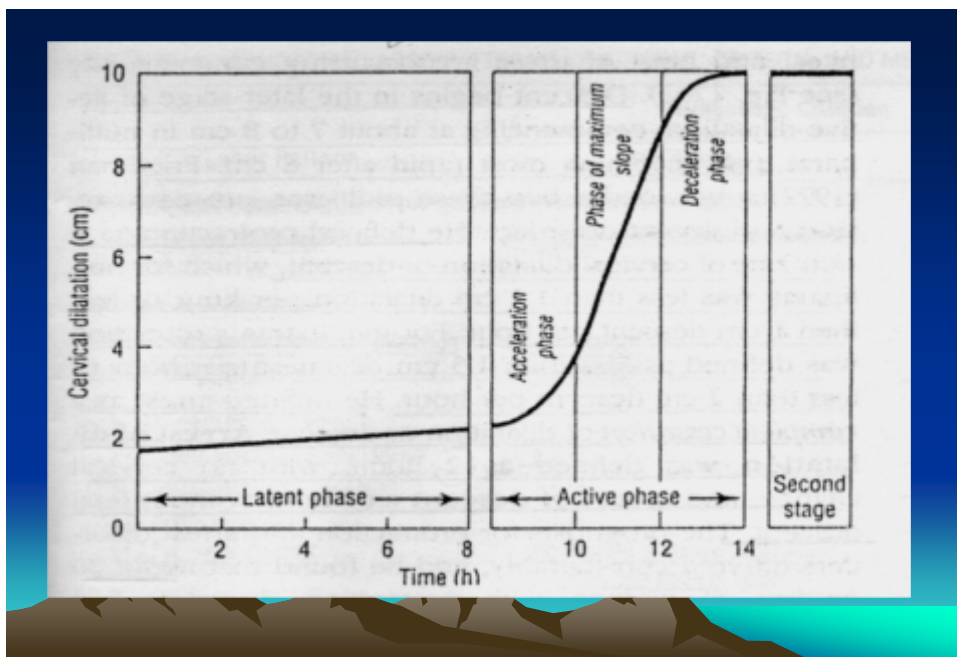
Latent phase :

Friedman defined it as the point at which the mother perceives regular uterine contraction along with cervical softening and effacement and ends at 3 cm dilatation.

Prolonged latent phase :

Defined (1963) by Friedman and Sachtleben to be greater than 20 hours in the nullipara and 14 hours in the paras women. These are the 95th percentage.

Factors that affect the duration of the latent phase include :

1 – Excessive sedation : conduction analgesia.

2 – Poor cervical conduction : (eg. Thick , uneffaced or undilated)

3 – False labour.

Rest is preferable for correcting prolonged latent labour because unrecognized false labour was common, with strong sedation 85 % of females begin active labour and 10 % cease contraction (false labour) and 5 % develop recurrent abnormal latent labour and require oxytocin

FIGURE 69–7
Patterns of delay. (Data from Friedman.)
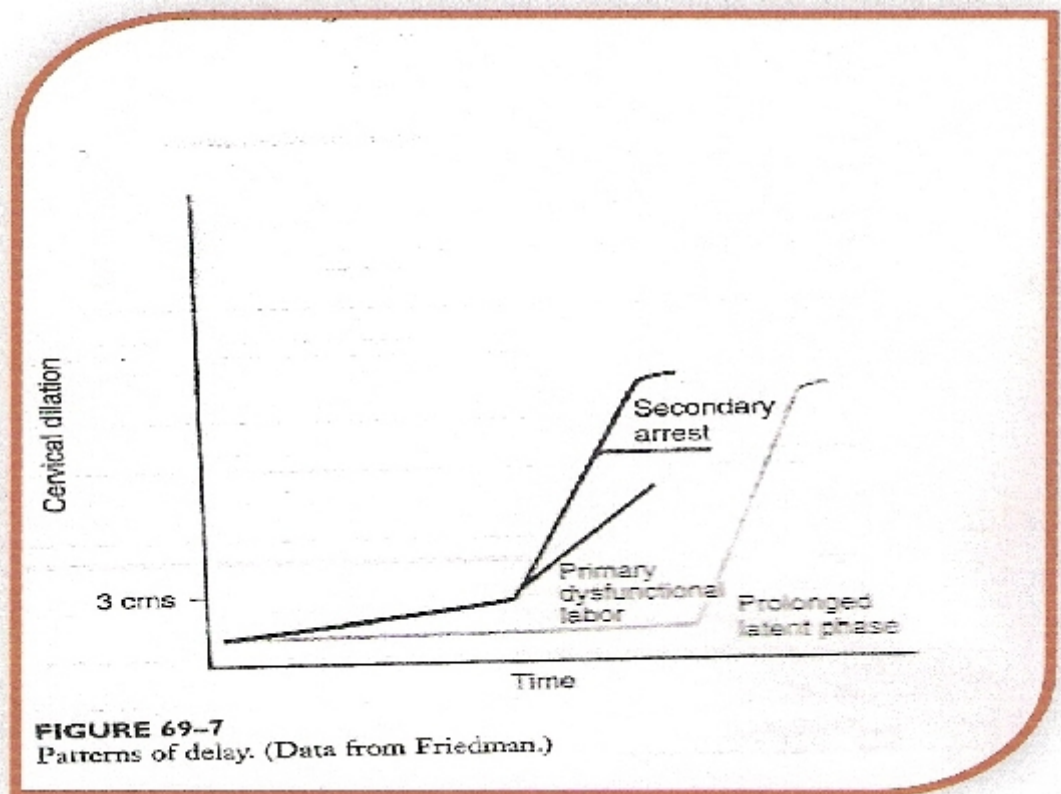
Active labour :

It begins when the cervix is 3 cm dilated.

* active phase abnormalities are the most common abnormalities of labour about 25% of nullipara and 15% of multipara.

* Friedman subdivided active phase problems into protraction and arrest disorders.

* Protraction defined as a slow rate of cervical dilatation or desent.

i.e < 1.2 cm dilatation / hour or < 1 cm / hour for nullipara or < 1.5 cm / hour or < 2 cm / hour for multipara.

* Arrest of dilataon defined as 2 hr with no cervical change or arrest of descent as 1 hour without fetal descent.

Factors contributing to both protraction and arrest disorders were :

1 – Excessive sedation.

2 – Conduction analgesia.

3 – Fetal malposition eg. Persistant occipito – posterior.

In both protraction and arrest disorders, fetopelvic examination done to diagnose CPD.

Second stage of labour :

***The second stage of labour begin when cervical dilatation is complete and ends with fetal expulsion.

***The length of the second stage of labour in nullipara was limited to 2 hours and extended to 3 hours when regional analgesia was used. For mulpara 1 hour was the limit extended to 2 hours with regional analgesia.

***The causes can be classified also as abnormalities of the powers, the passenger and the passages.

***Three options to treat :

Continued observation.   •

Attempt at operative vaginal delivery   •

Cesarean delivery   •

Uterine dysfunction : •

• This is the most common cause of poor progress in labour. Uterine dysfunction in any phase of cervical dilatation is characterized by lack of progress, for one of the prime characteristic of normal labour is its progression.

• However, one of the most common error is to treat women for uterine dysfunction who are not yet in active labour.

• It is more common in primigravida and in older women.

• There have been 3 significant advances in the treatment of uterine dysfunction :

• 1 – realization that undue prolongation of labour may contribute to perinatal morbidity and mortality.

• 2 – Use of dilute intravenous infusion of oxytocin in the treatment of certain types of uterine dysfunction.

• 3 – More frequently use of cesarean section delivery rather than difficult midforceps delivery when oxytocin fail or its use is inappropriate

• **Assessment of uterine contraction most commonly carried out By clinical examination and by using external uterine tocography, but this only provide information about the frequency and duration of uterine contraction

• **Intrauterine pressure catheters are available and these give accurate measurement of the pressure generated by the contraction but these rarely necessary.

• **A frequency of 4 – 5 contracons per 10 minutes is usually considered ideal.

Types of uterine contractions : •

**Uterine contractions of normal labour are charecterized by •
gradient of myometrial activity being greater and lasting longer at
the fundus (fundal dominant) and diminished towards the cervix.

Usually the exciting stimulus starts in one cornue and then •
several milliseconds later in the other. The excitation waves then
join and sweeping over the fundus and down the uterus.

** Normal spontaneous contractions often exert pressures of •
about 60 mm Hg.

There are 3 types of uterine dysfunction •

1 – Hypotonic uterine dysfunction : •

No basal hypertonus and uterine contraction is have a normal •
gradient pattern (synchronus) but the slight rise in pressure
during a contraction is insufficient to dilate the cervix.

Treatment : •
1 – Matrenal rehydration. •
2 – ARM. •
3 – Good pain relief and emotional support. •
4 – IV oxytocin (syntocinon), continuous EFM is necessary. •
**If progress fails to occur despite 4-6 hour of agumentaon with •
oxytocin, a C/S will usually be recommended.

2 – Hypertonic uterine dysfunction : •

Either basal tone is elevated appreciably or pressure gradient is •
distorted, perhaps by contraction of the mid – segment of the
uterus with more force than the fundus.

3 – Incoordinated uterine dysfunction : •

complete asynchronism of the impulses originating in each •
cornue.

Sometimes combination of the last 2 types. •

Treatment : •

Sometimes oxytocin effective in coordinating these •
contractions.

Dystocia can result from several distinct abnormalities involving the cervix, uterus, the fetus ,other obstruction in the birth canal or in the maternal bony pelvis. Quit often combination of these interaction to produce dysfunction labour. Recently term such as cephalopelvic disproportion and failure to progress are often used to describe these dysfunctional labours when cesarean section delivery is necessory.

Risk factors for poor progress in labour : •

1 – Small women. •

2 – Big baby. •

3 – Malpresentation. •

4 – Malposition. •

5 – Early rupture of membrane. •

6 – Soft tissue / pelvic malformation. •

7 – Dysfunctional uterine activity. •

Failure to progress, this term used to indicate lack of •
progressive cervical dilatation or lack of descent. So it is an
observation rather than a diagnosis.

•

REFERENCE :-

High risk of pregnancy