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Abnormal Uterine Action

M. Amul
Assistant Professor, Sree Balaji College of Nursing,
Bharath Institute of Higher Education and Research, Chrompet, Chennai

Abstract:- The uterus has three distinct layers the endometrium, myometrium, and perimetrium each playing a crucial role in the labour process. The transition from the latent to the active phase of labour is marked by an increase in the intensity and duration of contractions, with shorter intervals between them. Abnormal uterine actions can significantly contribute to dystocia, or difficult labor.T here is two main types of abnormal uterine activity that can lead to complications:

- **Hypotonic Uterine Activity: This occurs when the resting tone of the uterine muscle is low, resulting in weak or infrequent contractions. This can delay labour progress and may necessitate interventions.**
- **Hypertonic Uterine Activity: In this case, the uterine muscle tone is elevated, leading to frequent but ineffective contractions. This can result in prolonged labour and increased maternal discomfort. Both conditions can confuse the progression of labour and may require careful management to ensure a safe delivery. Effective monitoring and interventions can help address these issues and improve labour outcomes.**

Keywords:- *Pain, Slow Progress, Uterine Contractions, Cervical Dilatation.*

I. INTRODUCTION

Normal labor involves coordinated uterine contractions that lead to progressive cervical dilation and fetal descent. For a nulliparous woman, labor is considered normal if cervical dilation reaches at least 2 cm per hour, which often results in a successful vaginal delivery. However, labor abnormalities are relatively common, occurring in about 40% of nulliparous women and 10% of multiparous women. By enhancing labor management strategies, we can potentially reduce the incidence of dystocia related to abnormal uterine action. This underscores the importance of effective monitoring and interventions during labor to ensure better outcomes for mothers and infants.

➢ *Definition*

Deviation from normal uterine contractions during labor and more painful.

➢ *Etiology*

- Age of the mother (above 35)
- Prologned pregnancy
- Polyhydromios
- Psychological factors
- Contracted pelvis
- Malpresentation and deflexed head

II. HYPOTONIC UTERINE ACTION

A. Definition

Hypotonic uterine action is an abnormal labour pattern.

B. Etiology

- Over distension of uterus
- Anomalies of uterus
- Full bladder and rectum

C. Hypertonic Uterine Action

➢ *Clinical Picture*

- Prolonged labour
- More pain and irregular uterine contraction
- Maternal and fetal distress
- Premature rupture of membranes (PROM)
- Slow cervical dialatation

III. CONTRACTION RING

➢ *Definition*

Contraction ring is defined as connection of the lower and upper uterine segments. This in three stages of labour.

➢ *Etiology*

- Any position of the fetus during labor that is not optimal for a vaginal delivery.
- Anesthesia
- Oxytocin can lead to several complications during labor and delivery.

➢ *Diagnosis*

- A "colicky uterus" typically refers to irregular, painful contractions of the uterus, which can resemble colicky abdominal pain.
- The uterine cavity is the hollow space within the uterus where a fertilized egg can implant and grow during pregnancy.

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➢ *Complication*

- First stage : Internal os
- Second stage: Fetal neck
- postpartum hemorrhage: Third stage

Table 1: Pathological Retraction Ring, Contraction Ring

Pathological Retraction Ring	**Contraction Ring**
Second stage	Three stages
Lower and Upper uterine segments	level of uterus
Rises up	Does not change its position
Abdominally	Vaginally
Tonically retracted	Not tonically retracted

IV. MANAGEMENT

A. Excluding Malpresentations, Malposition, and Disproportion

Before any interventions, it's crucial to assess and exclude issues such as:

- Malpresentation
- Malposition
- Disproportion

➢ *1st Stage of Labor*

- Pethidine: An opioid analgesic

➢ *2nd Stage of Labor*

- Deep General Anesthesia and Amyl Nitrite Inhalation

✓ If the Ring Relaxes:
- Forceps Delivery

✓ If the Ring Does Not Relax:
- Caesarean Section

➢ *3rd Stage of Labor*

- Deep General Anesthesia and Amyl Nitrite Inhalation
- Manual Removal of the PlacentaNursing Care

✓ Reassure the patient
✓ Observation of: Vital sign. Contraction – Frequency, strength & duration. Effect on descent of the presenting part.
✓ Vaginal examination, Liquor amni – colour, amount & odour.
✓ Accurate fluid balance chart. Urinalysis
✓ Light diet.

V. PROLONGED LABOUR

Prolonged labor is defined as the duration of labor exceeding the normal timeframe, which is generally considered to be over 18 hours for both the first and second stages combined.

➢ *Causes*

- Malpresentation
- Cephalopelvic disproportion (CPD)
- Problem with uterine contraction
- Use of sedatives and anesthesia
- Cervical dystocia

➢ *Signs and Symptoms*

- Labour extends for More then 18 hours
- Pulse rate is often high
- Fetal distress develop
- Ketosis may develop due to prolonged starvation.

VI. RISK OF PROLONGED LABOUR

➢ *Maternal Risk*

- Postpartum infection
- Postpartum hemorrhage
- Intrauterine infection
- Trauma and injuries in the maternal birth passage

➢ *Fetal Risks*

- Intracranial hemorrhage or bleeding inside thefetal head
- Chances of operative delivery like cesarian sections
- Fetal distress due to decreased oxygen reaching the fetus
- The baby developing cerebral palsy

➢ *Management*

- Catheterization – continuous bladder drainage
- Blood grouping & x-matching
- Antibiotics: Ampicilin & metronidazole, ceftriaxone
- Deliver the mother by caesarian section
- Resuscitation : IV fluids RL or NS 1-2 L fast,use large bore cannula

VII. PRECIPITATE LABOUR

Precipitate Labor refers to a very rapid labor process, typically defined as the entire duration of labor lasting less than three hours from the onset of contractions to delivery.

➢ *Definition*

Labor lasting less then 3 hours.

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➢ *Etiology*

- Soft tissue resistance
- Roomy pelvis
- Small sized baby
- Strong uterine contraction

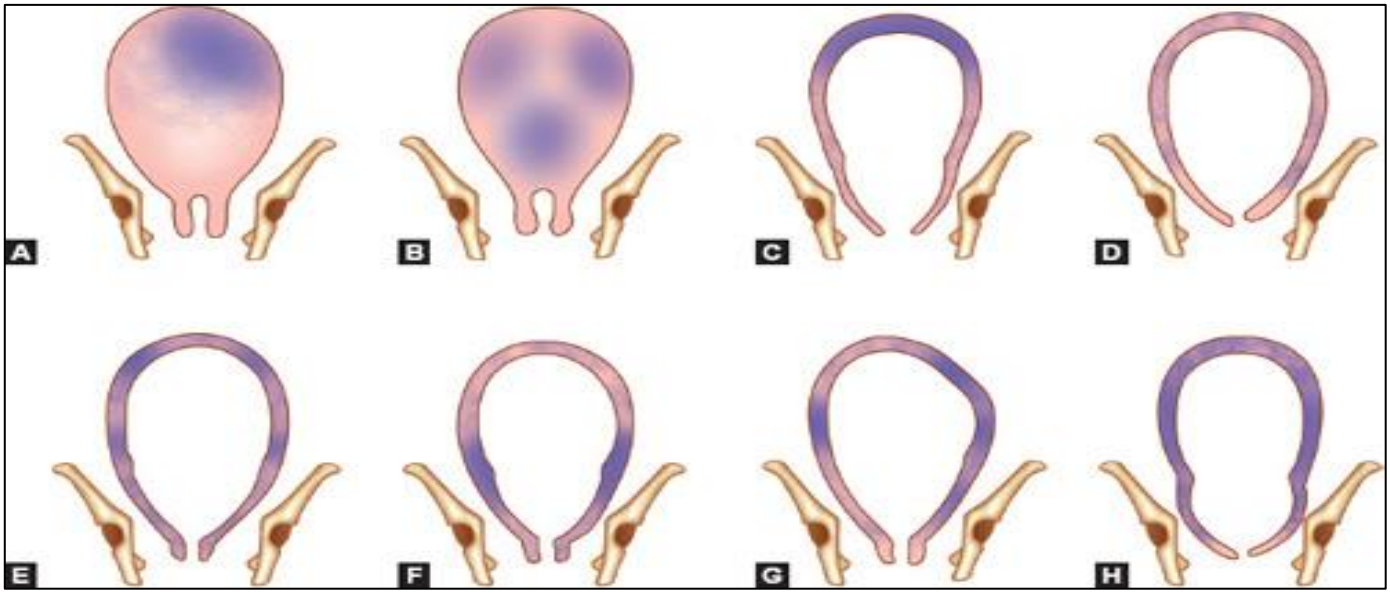

Fig 1: Abnormal Uterine Action

➢ *Maternal Risk*

- Inversion
- Uterine rupture
- Infection
- Amniotic fluid embolism

➢ *Treatment*

- Controlled Delivery of the Head:
- Episiotomy
- Oxytocin Augmentation Contraindicated
- Magnesium Sulfate During Contractions

VIII. COMPLICATION

➢ *Foetal*

Foetal asphyxia due to:

- Excessive pulling or tension on the umbilical cord
- Cephalohematoma
- Lack of immediate resuscitation

➢ *Maternal*

- Inversion of the uterus
- Shock lacerations of the cervix,vagina and perineum
- Postpartum haemorrhage

IX. CONCLUSION

If action is not managed promptly, it results in maternal and fetal complications such as hemorrhage, shock and rupture of the uterus. The fetal complications includes fetal distress and fetal injury. It is the responsibility of midwife/ health care professionals to take sound clinical judgment to recognize early signs of any deviation from normal labor and take appropriate decision making to deliver the mother by caesarean section to avoid complications and ensure the health of the mother and baby.

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