Chapter 24

DYSTOCIA

Definition - abnormally slow progress of labour

- In the active phase of the first stage: > 4 hours of < 0.5 cm/hr dilatation
- In the 2nd stage: > 1 hour with no descent during active pushing

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Preventing Dystocia

Accurate Diagnosis of Labour

Forty percent (40%) of caesarean sections performed for dystocia in nulliparous patients are done in the latent phase of labour. It is likely that at least a portion of these women were not in true labour at the time of labour management interventions or at the time of caesarean section.

Management of Prolonged Latent Phase

Management is controversial due to the limited number of published studies.

The woman should preferably not be admitted to the labour and delivery area until active labour is established.

Observation, rest and therapeutic analgesia are favoured over a more active approach of amniotomy and oxytocin induction.

Prepared Childbirth

For nulliparous women who have attended prenatal education, there may be more rapid progress in labour. Trials show that prenatal education decreases the amount of analgesia used during labour. All studies show that women who were prepared for labour had a more positive experience.

Birthing Companion/Continuous Emotional Support

There is now strong evidence that the presence of a supportive companion results in faster progress and less dystocia. This companion has had experience with labouring women, but is not necessarily trained in a health discipline.

The presence of a Doula, a personal attendant to provide physical contact and encouragement to the mother, has been shown to reduce the length of labour and decrease the use of analgesia and the need for labour interventions. In addition, an increase in positive recall of the birth experience and of desirable activities such as continued breastfeeding has been demonstrated.

Ambulation

Ambulation and upright posturing reduces the amount of pain perceived by women in labour. The use of a birthing ball or stool often helps if the woman does not want to walk. An upright posture in labour is especially useful in reducing back pain and reduces the need for epidural anaesthesia. Static supine positioning may result in anterior-posterior compression of the pelvis, reducing the size of the passage. Upright posture also prevents maternal hypotension and possibly non-reassuring fetal heart rate patterns which may occur during supine positioning.

Amniotomy

Routine early use of amniotomy after 3 cm dilatation shortens the average length of labour, but does not in itself reduce the incidence of dystocia or caesarean section. Early amniotomy at less than 3 cm dilatation may increase the incidence of dystocia.

Analgesia

The management of pain during labour involves more than the act of administering the best anaesthetic agent available in a timely fashion. Successful control of pain in labour requires active management of the entire process. This should begin with prenatal education and counselling. Measures to enhance comfort and reduce apprehension are required for the care of all women in labour. If appropriate measures are used early in the process of labour, analgesic needs decrease. Those who care for women in labour need to be aware of all the available options.

Management of Dystocia

If an arrest disorder is diagnosed, management can be divided into two possibilities:

- Arrest with true CPD
  - Caesarean section
- Arrest without CPD
  - Amniotomy

- Oxytocin augmentation
- Consider therapeutic rest with analagesia if exhausted

Oxytocin Augmentation of Labour

In the event of unsatisfactory progress (< 0.5 cm/hr x 4 hours, or arrest of descent for over 1 hour) **in the active phase of labour**, oxytocin is indicated. Prior to the use of oxytocin, consideration should be given to the appropriate use of analgesia, hydration, rest and amniotomy.

Oxytocin should be used to achieve adequate contractions before operative delivery is considered.

Oxytocin augmentation necessitates appropriate electronic fetal health surveillance, labour assessment and maternal health assessment. The principal complications that cause apprehension about the use of oxytocin are fetal compromise and uterine rupture. It must be remembered excessive uterine contractions are potentially dangerous for mother and baby. Judicious use of oxytocin should not result in complications.

Inappropriate use of oxytocin may produce hyperstimulation and decreased transplacental oxygen transport to the fetus. In the primigravida, rupture of the uterus in association with oxytocin is rare, however care must be taken in the grandmultipara and those with previous uterine surgery.

All labour and delivery units must be prepared to manage uterine hyperstimulation whether it is associated with oxytocin or not.

Consider oxytocin dosages as follows (depending on contractile pattern):

Initial dose of oxytocin	1-2 mU/min
Increase interval	q30 minutes
Dosage increment	1-2 mU/min
Usual dose for oxytocin with labour	8-10 mU/min

It is important to allow adequate time for oxytocin to work especially if the cervix is <5 cm dilated.

Management of the Prolonged Second Stage

The setting of an arbitrary time limit for the second stage in the absence of suspected fetal compromise is not well founded. Women should not be encouraged to push unless they feel the urge to do so. If no urge to push occurs after one hour of second stage, reassess the contractions and

consider the use of oxytocin if contractions are inadequate. Also consider what need you might have to achieve birth.

Summary

Prevention of Dystocia

- Encourage the use of prenatal education
- Avoid unnecessary induction
- Admit only women in active labour
- Continuous support of labouring women
- Encourage ambulation and upright posture
- Use appropriate analgesia

Management of Dystocia

- Appropriate assessment of adequate progress in labour
- Appropriate intervention when necessary
  - Analgesia
  - Rest
  - Ambulation
  - Amniotomy
  - Oxytocin augmentation
  - Fetal health assessment