MANAGEMENT OF PRETERM LABOUR

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Prevention of Preterm Birth

Initial risk assessment :

- Smoking cessation
- Women <18 years
- Domestic violence
- Urinary tract
- Vaginal infections

Further risk assessment

High risk group

- ❖Previous preterm birth or mid-trimester loss (16 to 34 weeks gestation)
- ❖Previous preterm rupture of membranes <34 weeks
- ❖Previous cervical cerclage or history or trachelectomy
- ❖Known uterine variant (unicornuate uterus, significant bicornuate uterus or uterine septum)
- ❖Ashermann’s syndrome

Intermediate risk group

- ❖Previous caesarean section at full dilatation
- ❖History of single LLETZ with depth >10mm depth
- ❖More than one LLETZ (irrespective of depth)
- ❖Cone biopsy (by knife of laser, irrespective of depth)

Management of women with a shortened cervix on scan

- ✓If previous PPROM or cervical trauma consider cervical suture or prophylactic vaginal progesterone (Cyclogest Vaginal Pessaries PV until 34/40 gestation). Discuss the risk/benefits of both options with the women and make a shared decision based on which treatment option is most suitable

- ✓ If previous spontaneous loss or birth (ie delivery 16-34 weeks) – offer prophylactic cervical cerclage or prophylactic vaginal progesterone depending on the woman's wishes. Discuss the risk/benefits of both options with the women and make a shared decision based on which treatment option is most suitable

Indications of cervical suture

- Rescue suture – if no evidence of chorioamnionitis and no bleeding or contractions
- Previous delivery 16-34 weeks and cervical length <25mm
- Women who have had a previous cervical cerclage
- NB. women who have a previous failed cervical suture (ie delivery <28 weeks) should be considered for an abdominal cervical cerclage
- Women who have had 3 or more losses/births (16-34 weeks)

Management of preterm labour with intact membrane

The diagnosis can be clear in well establish preterm labour
Challenges rise in threatened preterm labour or women in latent phase of preterm labour, the best practice in such cases is close observation and wisdom

Setting & referring

All cases of preterm labour need administration to government hospitals. Home and private hospitals preterm birth should be avoided

History

Abdominal pain, backache, period cramps
(Vaginal bleeding)show
Symptoms related to predisposing factors
Examination: Vital signs may be normal
Tachycardia and or fever if there is infection or antepartum haemorrhage Abdominal examination show regular uterine contraction There may be signs of predisposing factors
Pelvic examination may show/or not cervical dilatation bulging membrane, or offensive discharge
Investigations
No specific investigations for preterm labour. Investigations should be sending if there is any predisposing factor

1. Steroid

BENEFIT: Steroid will enhance lung maturity, so reduce significantly but not totally eliminate the risk of respiratory distress syndrome in addition steroid will reduce significantly the risk of intraventricular haemorrhage, necrotizing enterocolitis and neonatal death in preterm babies

ADVERRSE EFFECT: Caution is needed in cases of diabetes mellitus with preterm labour

TYPES: There are only two drugs that can be used for preterm labour; BETAMETHASONE and DEXAMETHASONE. Both are equally effective but betamethasone is safer than dexamethasone for fetus

1. DOSE: Betamethasone 12 mg, two doses, 24 hours apart ,intramuscular, total dose 24 mg. 2. Dexamethasone 6mg four doses,12 hours apart, intramuscular, total dose 24 mg

.COURSES: Both drugs can be given as single course Repeated courses may be harmful to newborn baby. The effect of steroid started after 24 hours from first dose, peak at 48 hours and maintain up to seven days

INDICATION: Steroid should be given to all preterm labour or threatened preterm labour (WITH high risk of preterm labour, between 24- 37 weeks)
CONTRAINDICATION: Systemic infection (TB) is contraindicated to use of steroid in preterm labour

2 . Tocolytics

There are groups of drugs that use as tocolytic. They are equally effective but differ in their side effect profile. The .lowest side effect profile is for NIFEDIPIN and ATOSIBAN The choice should be Nifedipine as it is given orally, low price with some beneficial effect on neonate (short term only). Atosiban should be used if there is a contraindication to use of Nifedipine. Always use single tocolytic drug Combination of tocolytic drugs is not rise the effectiveness but raise the side effects

DOSES

Nifedipine; initial dose is 20 mg orally followed by 10 mg every 6-8 hours adjusted according to uterine activity up to48 hours. Total doses should not exceed 60 mg
ATOSIBAN; initial dose 1 ml diluted in 4 ml fluid given intravenously as bolus dose within 1 minute, followed by 9 ml of atosiban diluted in 350 ml fluid given intravenously at rate of 1ml/minute = 18mg/h for 3 hours, then 3ml atosiban diluted in 350 ml fluid given intravenously at rate of 1 ml/h mg/h for 3 hours. The total duration of treatment should not exceed 48 hours. Total dose for one patient should not exceed 8 vials)300 mg(and the duration not more than 48 hours

INDICATION

The only indication for tocolytic is delay delivery until women complete steroid course (at least 24 hours). Ten percent of women with preterm labour are suitable for .(tocolytic)uncomplicated latent phase preterm labour Women with threatened preterm labour with high risk of preterm labour; can get some benefit from tocolytic therapy

CONTRAINDICATION

Women with threatened preterm labour without risk of preterm labour will deliver at term (70 -80%) and not need to be treated with tocolytic. Women with medical complications or an indication to terminate pregnancy should not receive tocolytic. Women in active phase of .preterm labour will not get benefit from tocolytic Antepartum haemorrhage, fetal congenital abnormalities and multiple pregnancies should not receive tocolytic. Tocolytic therapy should not be used as maintenance or preventive measures outside above indication

Magnesium Sulphate

Magnesium Sulphate should be considered in women in established preterm labour (cervical dilatation of >4cm with regular contractions) or having a planned preterm delivery 24 and 33+6 weeks gestation.

Regime:

Loading dose: Magnesium Sulphate 4 grams

- Draw up 20mls of MgSO4 20% (4grams)
- Give manually over 5 minutes IV

Maintenance dose: Magnesium Sulphate 1 gram per hour

- Draw up 50mls (10 grams) of MgSO4 20%
- Give IV using syringe driver at rate of 5mls/hour

IV antibiotics for labour

- All women, irrespective of Group B Streptococcus (GBS) history or status, should be offered Intrapartum antibiotic prophylaxis (IAP), to prevent a possible transmission of GBS, once labour has established with regular contractions and cervical dilatation > 4cm. This is regardless of PPROM or intact membranes .

- Antibiotics should not be offered for threatened preterm labour in the absence of membrane rupture .

- IAP is not required for preterm caesarean section in the absence of membrane rupture .

THANK YOU