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GUIDELINES ON PRETERM PRELABOUR RUPTURE OF MEMBRANE – GTG No.44

- PPROM complicates 2% of pregnancies; 40% of preterm deliveries and can result in significant neonatal morbidity and mortality
- The 3 causes of neonatal death associated with PPROM are prematurity, sepsis and pulmonary hypoplasia
- Women with intrauterine infection deliver earlier than non-infected women and infants born with sepsis have mortality 4 times higher than those without sepsis.
- There are maternal risks associated with chorioamnionitis
- In patients with PPROM, about 1/3 of pregnancies have positive amniotic fluid cultures and studies have shown that bacteria have the ability to cross intact membranes

DIAGNOSIS

- Maternal history of spontaneous rupture of membranes
- Sterile speculum examination
 - Presence of pool of fluid in posterior vaginal fornix is highly suggestive
 - Nitrazine test (which detects pH change from yellow to blue as vaginal discharge change to alkaline) can be used to confirm membrane rupture – 90% sensitivity
 - AmniSure, a rapid immunoassay, has been shown to be accurate in diagnosis of ruptured membranes (sensitivity 98.9% and specificity 100%)
- Ultrasound examination
 - Oligohydramnios
- Digital vaginal examination is best avoided unless woman is in labour due to risk of intrauterine infection.

WHAT ANTENATAL TESTS TO DO?

- Women should be observed for signs of clinical chorioamnionitis

DEFINITION OF CLINICAL CHORIOAMNIONITIS:

Include maternal pyrexia, tachycardia, leukocytosis, uterine tenderness, offensive vaginal discharge and fetal tachycardia

The frequency of maternal temperature, pulse and fetal heart rate auscultation should be between every 4-8 hours.

- Weekly high vaginal swab need not be performed
- Not necessary to carry out weekly maternal FBC or CRP because the sensitivity of these tests in detection of interuterine infection is low
- CTG is useful and fetal tachycardia is used in the definition of clinical chorioamnionitis.
 - Biophysical profile score and Doppler velocimetry can be done, but women should be informed that the value of these tests in predicting fetal infection is low
- The role of amniocentesis in improving outcome to detect intrauterine infection remains to be determined. There is insufficient evidence to recommend use of amniocentesis in the diagnosis of intrauterine infection

MANAGEMENT

Treatment:

1. ANTIBIOTICS

Prophylactic antibiotic:

Erythromycin 250mg orally 6 hourly should be given for 10 days following diagnosis of PPROM

Any penicillin (except co-amoxiclav) and erythromycin versus placebo was associated with reduction with a significant reduction in the numbers of babies born within 48 hours and who had positive blood cultures. Co-amoxiclav was associated with an increase in the numbers of babies born with necrotizing enterocolitis.

If GBS is isolated in cases of PPROM, it should be treated with routine intrapartum prophylaxis with penicillin, or clindamycin in women who are allergic to penicillin

2. ANTENATAL CORTICOSTEROIDS

Antenatal steroids should be administered in women with PPROM. It is associated with reduced risk of respiratory distress syndrome, intraventricular haemorrhage and necrotizing enterocolitis. They also reduce the risk of neonatal death

3. TOCOLYTIC AGENTS

Tocolysis in women with PPROM is not recommended because this treatment does not significantly improve perinatal outcome.

Can be considered for those with uterine activity to cover corticosteroids.

TIMING OF DELIVERY

Delivery should be considered at 34 weeks of gestation

Where expectant management is considered beyond this gestation, women should be informed of the increased risk of chorioamnionitis and the decreased risk of respiratory problems in the neonate.

Amniofusion during labour is not recommended in women with preterm rupture of membranes.

There is insufficient evidence to recommend amniofusion in very preterm PPROM as a method to prevent pulmonary hypoplasia.

MANAGEMENT OF PPROM

