York Hospitals NHS
NHS Foundation Trust

(August 2006)

Intrapartum Intra-uterine resuscitation (IUR)

Episodes of intrapartum CTG abnormalities, including prolonged bradycardia, may be associated with fetal hypoxia, which if prolonged may lead to neurological sequelae. Intrapartum CTG abnormalities are common. Less common but more dramatic hypoxia-inducing events include: placental abruption, cord prolapse and antepartum (fetal) haemorrhage. All of these may lead to fetal compromise and may necessitate emergency delivery. IUR should be part of the management procedure for these problems while delivery by the appropriate means is being arranged.

Methods of IUR

1. Maternal position: Left lateral position of the mother relieves aorto-caval compression and improves venous return and placental perfusion.

Variable decelerations may result from cord compression. Relief of such compression may be achieved by trying several right or left lateral positions.

2. Reduce or stop Syntocinon infusion: this reduces the intensity and frequency of uterine contractions, leading to improved placental perfusion.

3. Tocolysis: Uterine relaxation from normal or hyperstimulated contractions can be rapidly achieved (1-2 minutes) with Terbutaline 250 micrograms given subcutaneously. The effect lasts about 17 minutes for spontaneous labour and 15 minutes for augmented labour.

Commonest side-effect is maternal *and* fetal tachycardia.

Intravenous fluids: Infusion of crystalloid fluid is of benefit in restoring maternal vascular volume, especially when hypotension follows epidural analgesia, haemorrhage or dehydration. It is also needed as part of the anaesthetic procedure.
Care must be taken to avoid fluid overload, especially in pre-eclamptics.

Oxygen administration to the mother is appropriate as part of the anaesthetic procedure but not of proven benefit to the fetus. This is because fetal oxygen saturation depends on placental perfusion rather than maternal oxygen saturation. The 3 measures (1-3) above aim to improve perfusion.

Intrauterine Resuscitation

1. Left Lateral position
2. Stop syntocinon
3. iv Hartmann's fast (caution in pre-eclamptics / fluid restricted pts.)
4. 250mcg terbutaline subcut.

Authors: OA Jibodu & A Vipond, E Ross. August 2006. Review date: August 2009