Guidelines for the Intrapartum Management of Twin Pregnancies

Introduction

Spontaneous twinning occurs at a rate of approximately 1 in 80 pregnancies but overall twinning rates are increasing due to the widespread introduction of assisted reproductive techniques.

A variety of complications are more frequent in twin pregnancies and these may directly influence labour management including: preterm labour, intrauterine growth restriction of one or both twins, antepartum haemorrhage, pre-eclampsia, malpresentation or cord prolapse.

This guideline should be applied **only to the management of uncomplicated term twin pregnancies** where the first twin is presenting by the vertex. In situations where the first twin is non-vertex and / or other pregnancy problems exist, the case should be discussed further with the on call consultant and due consideration given to delivery by caesarean section.

On Admission in Labour

Inform on call consultant obstetrician and registrar. Consultant obstetrician should be immediately available.

1. Assess maternal condition and record pulse, blood pressure, temperature and urinalysis.

2. Perform abdominal palpation to confirm cephalic presentation of Twin 1. Ultrasound should be performed if any clinical uncertainty exists.

3. A large bore intravenous cannula (14G) should be sited and blood obtained for group and retain.

4. Auscultate both fetal hearts with a Pinard stethoscope and commence continuous external electronic fetal monitoring of both twins, which is mandatory and must be continued throughout labour. Ultrasound can be useful in identifying the separate fetal hearts if difficulties are encountered, following which the transducers are placed accordingly. **It is imperative that there is a differentiation between the two fetal heart rates to avoid the possibility that only one fetus is being monitored and this should be confirmed at every review of the CTG. If any doubt exists then an ultrasound should be performed.**

   If two monitors are being used then placing them both on the same side of the patient will allow easier comparison and differentiation of the fetal heart rates.

5. Once established in the active phase of labour an amniotomy may be performed. At this time if there is any difficulty maintaining a fully satisfactory tracing of Twin 1 then a fetal scalp electrode should be applied. If monitoring remains unsatisfactory then perform caesarean section.

6. Anaesthetic staff should be informed of the woman's admission and epidural anaesthesia discussed with her. This can provide adequate analgesia throughout labour and prevent delay if assistance requires to be given with the delivery of either twin. It is also useful in preventing discomfort to the woman, if any internal manipulation of Twin 2 is required following delivery of Twin 1.

7. Ensure that an Oxytocin infusion, Ergometrine and Syntometrine are available in the delivery room and that resuscitation facilities for delivery of the babies is prepared in case required.

8. Labour and delivery of Twin 1 should be managed as in a singleton pregnancy. The obstetric registrar, anaesthetist and neonatal team should be in alerted when delivery is imminent and should be present within Ward 24. In an otherwise uncomplicated labour however there is no need for all personnel to be present in the delivery room and consideration should be given to the privacy of the woman.

9. **Syntometrine should not be given at delivery of Twin 1.**

Following delivery of Twin 1

1. Palpate the abdomen to check that the second twin is lying longitudinally and maintain continuous electronic fetal monitoring.

2. If Twin 2 has both a longitudinal lie and a cephalic presentation then providing fetal monitoring is satisfactory, allow Twin 2 to descend into the pelvis. Once engaged, an amniotomy should be performed. A fetal scalp electrode may be applied if external monitoring is technically difficult.

3. Assess uterine contractions. If the uterine contractions are thought to be inadequate or infrequent an intravenous infusion of Oxytocin should be commenced. (See related guideline)

4. Delivery should then proceed as per singleton pregnancy however see No. 8 above.

Non vertex presentation of Twin 2

1. If the lie is not longitudinal, attempt correction to cephalic presentation (ideally) or breech by external version and maintain continuous electronic fetal monitoring.

2. Assess uterine contractions. If contractions have diminished, commence an intravenous

Oxytocin infusion. (See related guideline) If an Oxytocin infusion is already in use double the current infusion rate.

3. Providing fetal monitoring is satisfactory, allow Twin 2 to descend into the pelvis. Once engaged, an amniotomy should be performed. A fetal scalp electrode may be applied if external monitoring is technically difficult.

4. Aim for a spontaneous vertex delivery or assisted breech delivery within 30 minutes of delivery of Twin 1. Thereafter **consider** use of forceps, ventouse or breech extraction.

5. Where 30 minutes have passed and the presenting part is still not in the pelvis or delivery has not been achieved, it may well be appropriate to wait further in the presence of a normal fetal heart rate pattern. The on call consultant should be notified and further management discussed.

6. In the presence of fetal heart rate abnormalities necessitating delivery, an assisted vaginal delivery should be undertaken if the presenting part is below the ischial spines. If the presenting part is still above the ischial spines consideration should be given to internal version and breech extraction. Internal extraction is easier with intact membranes and the membranes should not be ruptured if possible until one or both fetal feet have been securely grasped.

7. If the above procedures are adopted, caesarean section will rarely be required for delivery of the second twin. It has to be considered in the presence of significant fetal heart rate abnormalities where internal version and breech extraction have not been achieved or in the even rarer event where the cervix clamps down.

8. The third stage should be actively managed with intramuscular administration of syntometrine on delivery of the anterior shoulder of **Twin 2**. Do not offer physiological 3rd stage. Thereafter an Oxytocin infusion of 20 iu of Oxytocin in 500 mls Sodium Chloride 0.9% should be commenced at a rate of 125 mls per hour, to prevent uterine atony and postpartum haemorrhage.

References

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