METHOD OF DELIVERY OF MULTIPLE PREGNANCIES

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The incidence of twins in the UK is 11/1000 pregnancies and triplets 1/4000. There is an increasing incidence as a consequence of assisted reproductive techniques (incidence following clomiphene treatment 5-10%; incidence at 20 weeks following 3 embryo transfer: Invitro Fertilisation (IVF)-zygote transfer 32%; Zygote Intrafallopian Transfer (ZIFT) 27%; Gamate Intrafallopian Transfer (GIFT) 16%. Triplet incidence: IVF-Embryo Transfer (ET) 4.1%; GIFT 4.3%). Monozygous twin incidence 3.5/1000. Aim to determine chorionicity in first trimester by scan in view of increased risks to monochorionic twins.

Pre-term labour is more common (43.6% before 37 weeks cf. 5.6% singletons). Mean duration of pregnancy decreases as number of fetuses in utero increases. Increased risk of pulmonary oedema with tocolysis (b sympathomimetics). Cord accident following pre-labour rupture of the membranes – mainly prolapse. Cord entanglement and knotting in monzygotics (perinatal mortality of up to 50%); mortality form asphyxia for a twin is 4-5 times that of a singleton. Malpresentation (cephalic/cephalic 40%, cephalic/breech 40%, breech/breech 10%, cephalic/transverse (TV) 5%, breech/TV 4%, TV/TV 1%); increased risk of operative delivery – either as an elective procedure or as an emergency before or after delivery of the first twin; risk of bleeding from undiagnosed vasa praevia; twin entrapment (1:817 twin pregnancies – typically with monozygotic twins); risk of post partum haemorrhage (10% twin vs. 5% singletons).

Labour/delivery: The zygosity, period when the woman presents in labour, presentation of the first and second`twin and other complications e.g. pre-eclampsia, intrauterine growth restriction etc. will influence the management of labour. If monochorionic and monoamniotic, an elective delivery soon after 34 weeks may be advisable to avoid fetal death due to cord entanglement. If monozygotic and monochorionic an elective CS is preferred by some to avoid acute transfusion from one to the other that may cause morbidity and mortality. If dichorionic and diamniotic consider induction of labour for normal pregnancy complications and if none for elective induction after 38 weeks as there is increased morbidity with increasing gestation. When the mother is admitted in labour there should be IV access and blood taken for FBC and group and save is useful because of increased risk of operative delivery and PPH.

Continuous monitoring is a must and when feasible site a fetal scalp electrode on the first twin. Use of epidural minimizes the risks of pushing prior to full cervical dilatation and enables operative procedures without recourse to GA e.g. internal podalic version or LSCS. Staff present at delivery should include two midwives, a senior obstetrician, anesthetist, a pediatrician and neonatal nurse.

If it is Vertex/vertex presentation then aim for vaginal delivery. If it is Vertex/non vertex then optimum mode of delivery is uncertain, but vaginal delivery is preferred. The plan should be to have spontaneous vaginal delivery of first twin with either external cephalic version or internal podalic version of the second twin and vaginal delivery. An oxytocin infusion is mandatory if there is uterine inertia – especially after delivery of the first twin (10iu in 1litre of 0.9% saline solution to run at 1miu/min – increasing in doubling doses every 5

minutes to restore adequate uterine activity (i.e. 3-4 contractions lasting 40 seconds per 10 minutes). Consider intervention to aid delivery of second twin if time between the deliveries exceeds 30 minutes. Active management of the third stage with IM syntometrine (0.5 mg ergometrine and 5 _ syntocinon) is recommended as a prophylactic measure against uterine atony followed by 40 iu of oxytocin in 500mls 0.9% saline solution to run over 3-4 hours. No randomized trials are available to confirm whether elective LSCS or vaginal delivery is the safest.

Higher order multiple deliveries: The recommendation is to deliver by elective LSCS as increased morbidity and mortality due to problems with fetal monitoring in labour. Generally an elective delivery at 34 weeks is planned in triplets should there be no complications prior to that.