Chapter 31

MULTIPLE GESTATION

Definition:

Multiple pregnancy is a gestation of 2 or more fetuses in the same pregnancy. Spontaneous twin pregnancy occurs approximately 1 in 90 pregnancies[1]

Antenatal complications

1. Preterm birth
2. Preeclampsia
3. Gestational diabetes
4. Preterm premature rupture of membranes (PPROM)
5. Premature rupture of membranes (PROM)
6. Intrauterine growth restriction (IUGR)
7. Discordant fetal growth
8. Congenital anomalies
9. Intrauterine demise of 1 twin
10. Anemia (maternal blood volume is 500ml or more than in a singleton pregnancy)
11. Abruption
12. Vasa previa / abnormal cord insertion
13. Twin to twin transfusion syndrome
14. Cerebral palsy – increased risk
15. Prematurity
16. Specific to mc / da twins
    a. Brain damage in surviving twin after death of one mc/da twin
    b. Twin to twin transfusion (TTTS)

Complications related to birth

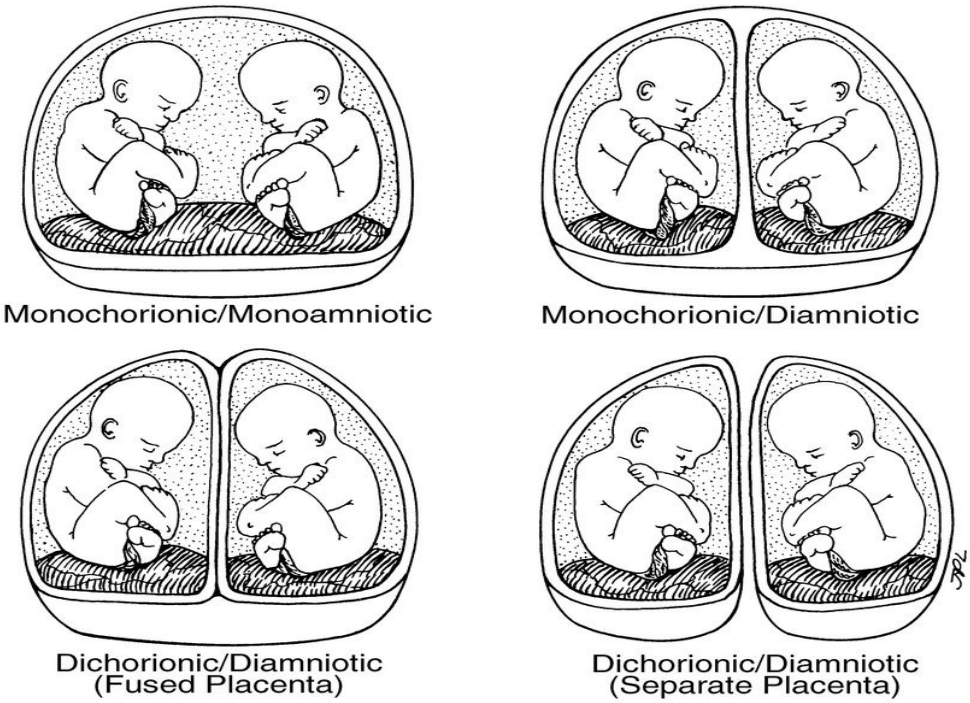
1. Malpresentations
2. Cord accidents
3. Placental abruption
4. Significant decrease in the second twin's ph with a birth interval greater than 30 minutes
5. Lscs for 2nd twin after svb of first twin

Postpartum complications

1. Uterine atony
2. Hemorrhage
3. Postpartum mood disorder

Antepartum Management

- Multiple gestation is a high risk situation and should take place in an institution where anaesthetic, obstetrical, neonatal and nursing staff are trained in twin delivery
- Antenatal transport of the woman to another centre should be considered when there are insufficient local resources.
- When twins are diagnosed, an ultrasound is done to determine chorionicity, amnionicity, and fetal anomalies. The earlier the diagnosis, the better able to determine chorionicity, the ideal time is between 10-12 weeks gestation
- Education given to recognize signs of early labour.
- Hospitalization may be necessary for maternal / fetal / obstetrical complications
- For Dichorionic twins**,** serial ultrasounds (every 3 to 4 weeks) should be done starting no later than 24 weeks to assess growth of the fetuses. **For monoamniotic twins, care in a tertiary care center by 24 weeks gestation, sooner if signs of TTTS**
- Fetal movement counts and non-stress testing, although more difficult to assess in multiple gestations, should be employed



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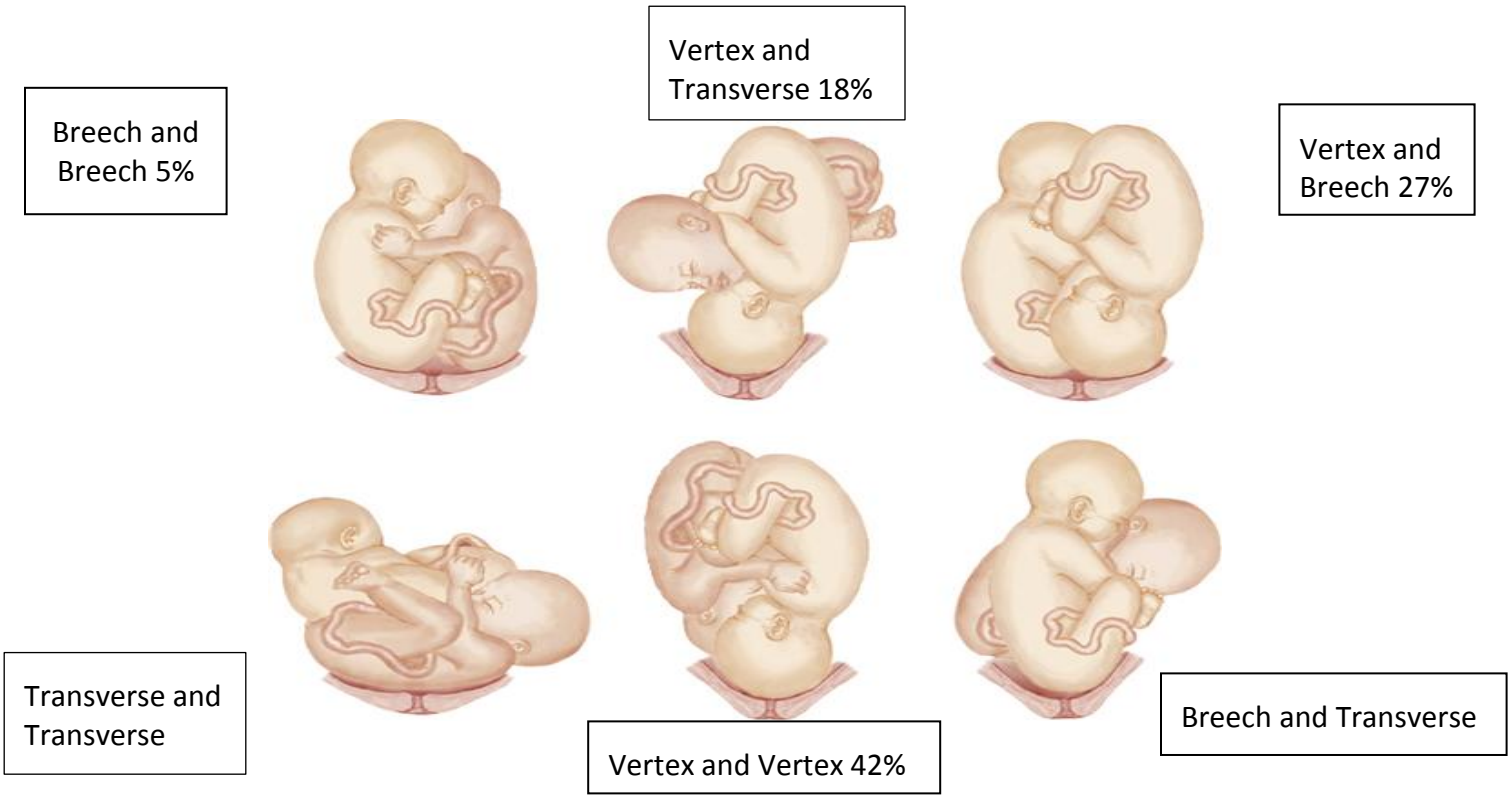

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Intrapartum Management

- Offer elective birth for monochorionic twins at 37 weeks gestation, and 37-38 weeks for dichorionic twins
- Vaginal birth should be planned, unless there are typical obstetrical indications for caesarean birth (eg: if the leading twin is a breech or a transverse lie)
- Continuous simultaneous electronic fetal monitoring is recommended for twin pregnancies in labour
- Epidural anaesthesia is recommended. Risks, benefits and limitations should be discussed with the woman and her partner

- In the case of labour dystocia augmentation of labour is an option
- The second twin should be carefully monitored and, if maternal and fetal conditions are stable, there is no evidence that rapid birth of the second twin is necessary. Recognize, however, that the incidence of abruption increases after birth of the first twin
- Forceps, breech extraction, or caesarean section may be necessary for the birth of the second twin; and personnel to allow that to happen should be available in hospital
- A team with appropriate resuscitation set-up is required for each baby.
- Avoid draining the cord bld samples directly from the cord until the birth of the second twin
- Routine intravenous infusion of Oxytocin is strongly advised post birth to prevent acute postpartum haemorrhage (from uterine atony). To be administered after birth of all fetuses

Postpartum

- Active management of the third stage of labour to prevent postpartum haemorrhage (PPH)
- Oxytocin infusion should be continued for 2 – 3 hours
- Breastfeeding should be encouraged
- Skin to skin should be initiated as soon as reasonably possible
- Parents should be encouraged to become involved with their local Parents of Twins Club.

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References:

1. Evans, R.J., RN, PhD, PNC(c); Evans, M.K. RN, PhD; Brown.Y.M.R RN, MCEd; **Canadian Maternity, Newborn, and Women's Health Nursing,** Wolters Kluwer, New York, 2015
2. The Society of Obstetricians and Gynecologists of Canada (SOGC), **Alarm Course Syllabus, 2017-2018 24th Edition**.