



22. LARGE FOR GESTATIONAL AGE (LGA) INFANTS

Definitions

- Large for Gestational Age (LGA): a baby with a birth weight > 90th percentile for gestational age. In term babies, this amounts to a birthweight > 4000g.
- Macrosomia: a baby which has a large body and increased body mass.

LGA and macrosomia are synonymous terms, and include Infants of Diabetic mothers (IDM's)

Causes

- Maternal diabetes
- Genetics: "big parents - big baby"
- Excessive maternal weight: "fat mother - fat baby"
- Rare genetic disorders e.g. Beckwith-Wiedemann Syndrome

Complications and Risks

- Antenatal and Intrapartum risks:
 - Increased stillbirth rate (8x in IDM's)
 - Obstructed labour and shoulder dystocia
 - Foetal distress
- Neonatal:
 - Birth trauma (fractures of clavicle/humerus; brachial plexus injury; hypoxic-ischaemic damage)
- Hypoglycaemia (in all, but especially in IDM's)
- In addition, in IDM's:
 - Immature lungs with RDS
 - Polycythaemia
 - Neonatal Jaundice
 - Cardiac defects
 - Asymmetrical ventricular septal hypertrophy with left and/or right HOCM
 - VSD
 - Rare: sacral agenesis; microcolon
 - Long-term: increased risk of type I and type II diabetes in baby

IDM's are BIG but IMMATURE

Management

- Delivery is high risk: expect and manage complications
- Examine for and manage:
 - Macrosomia-Birth trauma due to possible cephalo- pelvic disproportion particularly brachial plexus injury
 - Dysmorphia
 - Plethora, Polycythemia and jaundice
 - Cardiac murmurs and possible cardiac failure secondary to hypertrophic obstructive cardiac disease
 - RDS-although term, baby may develop hyaline membrane disease due to suppression of surfactant production
 - Prematurity-the baby may be big but still immature with all the problems of prematurity.
 - Bowel obstruction-usually duodenal atresia (failure to pass stool, abdominal distention and "double bubble" gas pattern on X-ray)
- Look for and manage **hypoglycaemia**, with reference to the Clinical Guideline 4 "Neonatal Hypoglycaemia"
 - Feed at least within 30 minutes of birth (unless severe RDS or intrapartum hypoxia)
 - Breastfeed or give EBM via NG tube or cup
 - formula 10 ml/kg (only if medically indicated)

NEVER give formula to a breast feeding baby