FRCA Podcast

Episode 10 - Obesity and Pregnancy

1 in 4 pregnant women are found to be obese (BMI > 30) at their booking consultation.

Pathophysiology

Obesity can be thought of as a medical condition that affects the woman's ability to carry a pregnancy to term and deliver a baby safely. They have a reduced functional reserve, and pregnancy and labour are physiologically demanding. Moreover, there may be associated medical conditions, the most significant being diabetes mellitus type 2 and hypertension. Ischaemic heart disease, cardiomyopathy and even pulmonary hypertension (secondary to obstructive sleep apnoea or obesity hypoventilation syndrome) may also be present.

Fetus

Obesity is an independent risk factor for still birth, pre-term delivery, miscarriage and birth defects.

Delivery

Induction	Higher rates and higher failure rates - uterus is infiltrated by fat and does not respond as normal to Prostaglandin E2 (Dinoprostone) or Oxytocin.
Instrumental delivery	Higher complication and failure rate.
Surgical delivery	Higher rate of Caesarean delivery. Longer duration surgery, with potentially more blood loss. Greater likelihood of postoperative complications such as poor wound healing, bleeding, surgical site infection, venous thromboembolism. Uterus is less sensitive to Oxytocin.

Anaesthetic management

Anaesthetic antenatal clinic - make a plan in consultation with the multidisciplinary team
Early cannula (ultrasound)
Early epidural

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Regional anaesthesia

Dural puncture risk 4% versus 0.5-2.5% (about 1 in 25 versus 1 in 100).

General anaesthesia

Obstructive sleep apnoea, large head and neck.
Gastro-oesophageal reflux.
Reduced FRC (pregnancy reduced this by 25% anyway).
High oxygen demands of pregnancy and labour.
