Induction of Labour for Fetal Macrosomia: An Audit of Practice Consistency with State-wide Guidelines

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Background

- Fetal macrosomia is associated with higher incidences of adverse outcomes, such as shoulder dystocia, obstetric anal sphincter injury (OASI), and postpartum haemorrhage (PPH).
- An induction of labour (IOL) aims to lower the incidence of such outcomes.
- Queensland clinical guidelines (QCG) recommend IOL from 38+0 weeks if the estimated fetal weight >97% or gestation-specific weight, being:
  i) 3500g or over at 36 weeks, OR ii) 3600g or over at 37 weeks, OR iii) 3700g or over at 38 weeks
- Risk of IOL include: 1) premature rupture of membranes, 2) failure, 3) uterine hyperstimulation

Aims

- To assess the adherence of a secondary-level regional Queensland facility to statewide guidelines for Induction of Labour (IOL).
- To review perinatal outcomes for women who had an IOL for foetal macrosomia.

Methods

- Routinely collected de-identified data between January and June 2023 were collated and analysed.
- Inclusion criteria: Women with singleton, non-anomalous, cephalic-presenting pregnancies with suspected foetal macrosomia.

Results

968 total live births
31.7% (307/968) term IOL rates
8.5% (26/307) IOL for fetal macrosomia
Most IOLs occurred at 38 weeks

Median birthweight: 3820 ± 440g

Only 50% (13/26)

Adhered to QCG IOL guidelines for suspected fetal macrosomia.
Practices that were not adherent to the clinical guidelines include:
1) IOL fetal macrosomia with an EFW <97% or greater than a gestation-specific weight, AND
2) IOL for fetal macrosomia based on the abdominal circumference (AC) > 95.
3) IOL for fetal macrosomia solely based on measurement of the symphysiofundal height.

80.7% (21/26)

Spontaneous vaginal deliveries. There were no instrumental deliveries in this time period.

23% (6/26)

Developed a PPH between 500 – 1000 mL. There were no documented PPH >1000 mL in this time frame.

3.8% (1/26)

Developed a shoulder dystocia in a birth that did not meet QCG criteria.

7.4% (2/26)

Developed an OASI that were all 3rd degree perineal tears.

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Discussion

There is poor adherence to the latest QCG for inductions of labour for fetal macrosomia. Nonetheless, perinatal outcomes remain favourable, including: 1) majority having vaginal deliveries, 2) lower rates of shoulder dystocia, OASI and PPH.

Barriers to QCG practice compliance:

- Awareness of statewide guidelines.
- Conflicting definitions for fetal macrosomia.
- Variation in ultrasound reporting standards and terminology.

Implication: More women are being induced than required.

Limitations:

1) Limited data—data collected only from January to June. Data over a longer period may be more reliable.
2) Perinatal outcomes can be skewed by other patient factors, such as parity, maternal anatomy and BMI, and past obstetric history.
3) Data for women who spontaneously laboured prior to their induction for fetal macrosomia were omitted.

Future directions:

- Education to align practice with QCG.
- Support consistent terminology and reporting amongst imaging providers in mixed model of care