Undiagnosed breech at term: a case series

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Background

- Mode of birth for breech presentation was influenced by the term breech trial (1). However, a more recent trial stated that attempted vaginal delivery for breech presentation remains an option in carefully selected women under strict obstetric protocols with full discussion about risks and benefits during antenatal clinic (2).

- If breech is undiagnosed then mode of birth needs to be discussed during a highly stressful situation and there is not the opportunity to evaluate if the patient is suitable for a vaginal breech birth.

- This study aims to identify prevalence and outcomes of undiagnosed breech in an Australian tertiary and community centre.

Methods

- Retrospective study from 2012 – 2017 across 1 tertiary and 1 community hospital.
- Examined all breech birth records
- Excluded: pre-term, and breech diagnosed prior to labour, induction, or antenatal emergency.

Results

Demographics:

- 593 total breech births with 13 undiagnosed (2.2%)
- Age ranged 17 – 40 with average age 26.5 years
- 3 primiparous women, 10 multiparous (77%)
- 2 women with previous malpresentation requiring caesarean section.
- Median BMI: 24

Body Mass Index					
Underweight <18.5	Normal 18.5-24.9	Overweight 25-29.9	Obese (Class 1) 30-34.9	Obese (Class 2) 35-39.9	Obese (Class 3) >40
1 (7.6%)	6 (46%)	3 (23%)	1 (7.6%)	0	2 (15.2%)

Antenatal Care:

- 7 had midwifery-led care
- 3 had obstetrician-led care
- 1 had GP shared care
- 1 was seen in diabetes clinic
- 1 was seen by the high-risk team (secondary to gastroschisis)

When was breech diagnosed:

- 5 in spontaneous labour (38.5%)
    - 1 cephalic on formal USS 4 days prior to birth
    - 1 breech with no clinical follow-up prior to a rapid labour and birth
- 4 induction of labour (IOL) (30.7%)
    - 2 cephalic on bedside USS prior to cervical ripening balloon (CRB)
- 3 diagnosed during antenatal emergency
- 1 diagnosed at post-dates review leading to CS

Stage of labour breech diagnosed						
Antenatal			Intrapartum			
Post-dates review	Cord prolapse	Prelabour ruptured membranes	Early labour with CRB	1st stage labour	2nd stage labour	At CS
1 (7.6%)	1 (7.6%)	1 (7.6%)	2 (15.3%)	2 (15.3%)	4 (30.7%)	2 (15.3%)

- 1 woman progressed from 6cm to full dilation en route to CS

How was breech diagnosed:

Method of diagnosis			
Bedside USS	VE only	VE + USS	At CS
4 (30.7%)	4 (30.7%)	3 (23%)	2 (15.3%)

Outcomes

VBB n=3

Frank breech n=2

1 Uncomplicated

1 Lovset's and Popliteal pressure required

Maternal outcome:
500-1000mL haematoma needing drainage in theatre

1 footling breech

Consultant needed for delivery of head

Fetal outcome:
Admitted to SCN
Arterial pH 6.9, lactate 10, BE -15.6
Maternal outcome:
1000mL PPH

CS n=10

Anaesthetic

1 General (2nd stage)

Spinal n=9

Surgical complications

1 inverted-T incision

1 postpartum infection

Fetal outcomes:
2 babies admitted to special care.
1 for respiratory distress associated with abnormal CTG
1 due to gastroschisis

Discussion

- Undiagnosed breech is an uncommon occurrence at 2.2% of all breech babies. However, it is important to maintain skills for vaginal breech birth.

- Some of these cases were preventable, especially the 4 women undergoing IOL and the 1 woman diagnosed as breech who laboured rapidly and went on to have a footling breech vaginal birth.

- A strategy to prevent undiagnosed breech could include routine USS of all women at 36 weeks gestation. However this is a large expenditure for an uncommon presentation.

- Another strategy includes routine bedside USS of all women prior to commencing IOL and rupture of membranes.

References

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2. Borbolla Foster A, Bagust A, Bisits A, Holland M, Welsh A . Lessons to be learnt in managing the breech presentation at term: An 11-year single-centre retrospective study. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 2014; 54(4)