WOMEN'S HEALTH AND PAEDIATRICS

MATERNITY UNIT

Fetal Pillow and Impacted Fetal Head

Amendments			
Version	Date	Comments	Approved by
1	June 2020	Introduction of Guideline	Perinatal Governance Guideline Group

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In consultation with: Perinatal Governance Guideline Group

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Target audience: All health professionals within the maternity services
Equality impact assessment: Perinatal Governance Guideline Group

Comments on this document to: Perinatal Governance Guideline Group

Contents

Abbreviations

GTN	Glyceryl trinitrate
OA	Occiput Anterior
OP	Occiput Posterior
OT	Occiput Transverse
HIE	Hypoxic Ischaemic Encephalopathy
CS	Caesarean Section

Management of Impacted Fetal Head Flow Chart

Caesarean Section in Advanced Labour / 2nd Stage

Obstructed Labour

Anticipate and Consider

- Consider need for **FETAL PILLOW**
- VE to gently disengage fetal head prior to CS
- Lloyd Davies position (modified)
- Vaginal assistant to gently push head upwards prior to uterine incision and between uterine contractions (if fetal pillow not used)

- At C/S slowly pass the hand deep into the lower segment
- **Do not fight a contracted uterus** – wait 10 seconds for it to relax
- Make sure your hand is far enough down so the head does not become laterally hyperflexed during the extraction
- Deliver head by flexing with fingers not wrist

Not delivered: Declare impacted head to team and head down tilt
Relax the uterus: Terbutaline 0.25mg IM or Sub-lingual GTN Spray 1-2x

Still not delivered: **Call for help** senior midwife, consultant and neonatal team
Repeat manoeuvres above.
Consider swapping sides or swapping hands

If still undelivered consider **further sub-lingual GTN 1-2 spray or 5mg IV** Contraindications: bleeding, hypovolaemia raised ICP, nitrate

If still not delivered, consider:

- **Pull Method:** Involves delivering breech first. Incision may need extended to a J/inverted T. The hand is passed up the back until a leg is reached. Then either the leg or breech is delivered. The rest of the delivery will be as for a breech CS.

- **Modified Patwardhan's Method:** Deliver the anterior shoulder by hooking through the axilla followed by the posterior shoulder. Then to deliver the baby as a breech C/S.

- **Landesman Abdominovaginal delivery:** Woman is placed in the Whitmore Position (modified lithotomy). A senior assistant introduces the hand into the vagina to push the head up, the surgeon at the same time places an upwards traction on the shoulders to help in dislodging the head.

At all points consider **position of patient** and **repeat above steps** until senior obstetric help is present

Management of Impacted Fetal Head and the Fetal Pillow Device

1.0 Introduction

Caesarean section at full dilatation can be difficult if the fetal head becomes impacted in mother's pelvis. Difficulties in dis-impacting an engaged fetal head can often delay the delivery of an already compromised fetus and may cause fetal injuries.

Other complications of an impacted fetal head at Caesarean Section include:

Delay in delivery of fetus with potential to cause HIE	Postpartum haemorrhage
Admission to NNU	Maternal blood transfusion
Uterine Incision Extensions	Sepsis
Injury to Uterine vessels	Increased operating time
Trauma to Urinary Tract	Increased hospital stay

In the first year of NHS Early Resolutions (2017/2018), impacted fetal head and/or difficult delivery of the head at caesarean section, was a contributory cause in 9% of cases.

2.0 What is a Fetal pillow?

Fetal pillow is a disposable soft silicon balloon device which is inserted into the vagina and placed beneath the head and then inflated to help lift the fetal head and dislodge it from the pelvis before commencing the caesarean section. Fetal pillow makes the delivery of the head easier and reduces the risk of complications for the mother and baby that occur when a caesarean section is carried out at full dilation.

3.0 Indications for use

Caesarean Section:

1. After a failed instrumental delivery
2. Second stage Caesarean section with deeply impacted head
3. Deep Transverse Arrests/Occipito Posterior position of head at full dilatation
4. Emergency Caesarean Sections for absent progress at 8-10 cm with deeply engaged head/ deflexed head/ Brow presentation
5. Excessive caput and moulding of fetal head at 8-10 cm of dilatation

The decision whether to use a fetal pillow is based on clinical findings and judgement.

4.0 Instructions for use

1. Patient to be in lithotomy position
2. The device is taken out from the pack onto the sterile trolley.
3. Deflate the silicon balloon completely by using the 60 ml syringe in the pack
4. Apply liberal amount of obstetric cream on the deflated balloon before inserting it inside the vagina
5. Hold the deflated balloon device like folded wings between the thumb and the finger, making sure that the tube attachment is at the superior end
6. Insert this in the vagina and place it behind the fetal head
7. Make sure this device lies flat, with the deflated surface in direct contact with the fetal head and push it posteriorly towards the sacral bone of mum.
8. Place patient's legs flat on the operating table
9. Inflate the balloon using the 60 ml syringe to push in 180mls of Normal saline through the two way tap in the tube.
10. Close the tap so that Normal saline does not escape out
11. Commence Lower segment Caesarean section
12. Make a curvilinear incision on the upper part of lower segment of the uterus just beneath the vesico-uterine peritoneal reflection to deliver the baby
13. Deflate the balloon by opening the two way tap and saline to be drawn out using the 60 ml syringe - done by midwife/ HCA after delivery of baby
14. Operating surgeon to carefully remove the deflated device by hooking a finger on the plate and to pull it out gently before cleaning the vagina after Caesarean section.

CONTRAINDICATIONS: Presence of active genital infection

WARNING:

1. Do not use air to inflate the balloon.

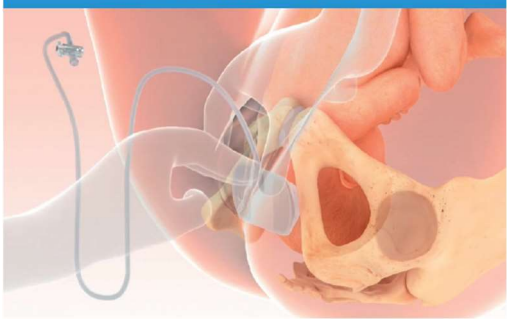
2. Do not inflate the balloon more than 300ml.

5.0 Fetal Pillow Insertion

1. Insertion

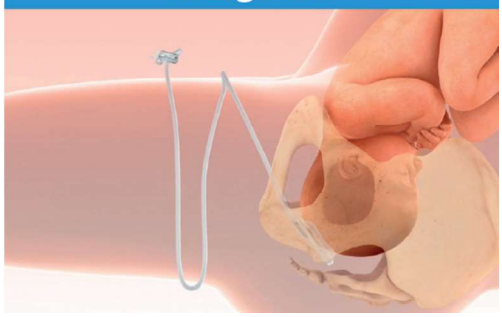
- Bi-fold the device in two
- Lubricate device
- Insert vaginally ensuring the balloon surface is in contact with the fetal head
- Tube attachment must be pointing upwards

2. Placement



- Push the device as posteriorly as possible, towards sacrum
- Placement is similar to a posterior ventouse cup

3. Legs Flat



- Lay the legs flat in the operating table - otherwise it can be expelled or displaced if legs are open

4. Inflation

Inflate with 180ml of saline using the 60ml syringe provided -Three Full Syringes

5. Perform Caesarean section using standard technique
6. Inflate with 180ml of saline using the 60ml syringe provided -Three Full Syringes
7. Midwife / Maternity Assistant to open tap to allow saline to drain from fetal pillow device.
8. Remove fetal pillow at end of Caesarean Section

6.0 Educational Tools

https://safeob.com/animation

https://safeob.com/training

7.0 References

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