

Intrauterine tamponade balloon for postpartum haemorrhage

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Key Amendments

Date	Amendments	Approved by

Introduction

Used for the conservative management of post-partum haemorrhage.

Intended as a temporary means of controlling post-partum bleeding in cases of placenta previa/accreta or in cases where continuous oozing from the placental bed is noted and uterine preservation is desirable.

IMPORTANT: Intrauterine balloon tamponade is not a substitute for surgical management and fluid resuscitation of life-threatening postpartum haemorrhage.

Contraindications for use

1. Arterial bleeding which indicates hysterectomy.
2. Uterine atony.
3. Disseminated intravascular coagulation.

Instructions for effective placement of the catheter:

- **Close patient monitoring is required at all times during balloon use.**
- The device should not be left in the uterus for longer than 24 hours.
- An indwelling Foley catheter should be inserted into the bladder in all cases on continuous drainage.

After Vaginal Delivery / Transvaginal Placement:

Proper placement of the catheter requires good access and visualisation & in most cases examination under anaesthesia to exclude other causes of PPH. This procedure is preferably performed in theatre as adequate light, placing the patient in lithotomy position and effective analgesia (spinal/epidural) is required.

1. Determine approximate uterine size and confirm that the uterus is clear of any retained placental fragments, there is no arterial bleeding, or missed lacerations.
2. Insert the balloon portion of the catheter in the uterus, making certain that the entire balloon is inserted past the cervical canal and internal ostium.
3. Caution: Avoid excessive force when inserting the balloon into the uterus.
4. If not already indwelling, place a Foley catheter in patient bladder to collect and monitor urine output.
5. To ensure maintenance of correct placement and maximize tamponade effect, the vaginal canal may be packed. **If a pack is left in situ it must be clearly documented (and handed over) that it is to be removed at the same time as the balloon.**

Caesarean Delivery / Transabdominal Placement

1. Determine uterus is clear of any retained placental fragments, arterial bleeding, or lacerations.
2. Determine uterine volume by intraoperative direct examination

3. From above (via access of the caesarean incision), pass the tamponade balloon, inflation port first through the uterus and cervix. Access may be easier if the drain end is folded over the inflation port and grasped with Rampley's sponge holding forceps prior to passing through the cervix.
4. Have an assistant pull the shaft of the balloon through the vaginal canal until the deflated balloon base comes in contact with the internal cervical ostium.
5. Balloon may partially be inflated at this stage to avoid accidental slippage of the catheter out of cervical canal while suturing.
6. Make sure there is no traction on the balloon at this stage to avoid accidentally removing the tamponade balloon catheter per vagina.
7. Close the incision as per normal procedure, taking care to avoid puncturing the balloon while suturing. Extra care may need to be taken while suturing to avoid puncturing the balloon if it is partially inflated at this stage.
8. If not already indwelling, place a Foley catheter in patient bladder to collect and monitor urine output.
9. To ensure maintenance of correct placement and maximize tamponade effect, the vaginal canal may be packed with iodine or antibiotic soaked vaginal gauze at this time. **If a pack is left in situ it must be clearly documented (and handed over) that it is to be removed at the same time as the balloon.**

Instructions for Balloon Inflation

1. Always inflate the balloon with sterile liquid. e.g. normal saline. The maximum amount infused should be no greater than 500ml. Do not over inflate the balloon.
2. Ensure that indwelling Foley is placed in patient bladder at this time.
3. To ensure that the balloon is filled to the desired volume, it is recommended that the predetermined volume of fluid be placed in a separate container, rather than solely relying on a syringe count to verify the amount of fluid that has been instilled into the balloon.
4. Using the enclosed syringe, begin filling the balloon to the predetermined volume through the stopcock.
5. Apply gentle traction to the balloon shaft to ensure proper contact between the balloon and tissue surface
6. If balloon gets dislodged due to shaft tension and cervical dilation, deflate, reposition, and re-inflate. Use of vaginal packing may be indicated at that time to aid in balloon placement.

Patient Monitoring

Patient should remain on delivery suite until the balloon has been removed and the patient has been observed for at least one hour to confirm continuing haemostasis.

1. Once balloon is placed and is inflated, connect the drainage port to a fluid collection bag to monitor haemostasis.
2. **IMPORTANT:** To adequately monitor haemostasis, the balloon drainage port and tubing should be flushed clear of clots with sterile isotonic saline.
3. Patient should be monitored continuously for signs of increased bleeding, uterine cramping, or a deteriorating condition.

Catheter Removal

Maximum indwell time is twenty-four (24) hours.

Balloon may be removed sooner upon physician determination of haemostasis or need to apply more aggressive treatment.

1. Remove tension from balloon shaft.
2. **Remove any vaginal packing.**
3. Using an appropriate syringe, aspirate the contents of the balloon slowly over one to two hours until fully deflated.
4. Gently retract the balloon from the uterus and vaginal canal and discard.
5. Continue to monitor the patient for signs of uterine bleeding.

NOTE: Sudden deflation of the balloon may result in uterine cramping; therefore it is advised to deflate the balloon slowly.