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Primary Post Partum Hemorrhage

By

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Obstetrics is bloody business. Preparation is key to a successful outcome. This should begin antenatally. We have to prepare the patient and family by informing them about the process of labour and complications that can occur without alarming them. The obstetrician should be aware that more complications can be expected in a "normal"pregnancy and deliveryjust because we are caught unprepared.Anticipating a difficulty can make us mentally and technically prepared to meet it. About 2/3rd of the primary PPH is due to uterine atony.

Traditionally primary PPH is defined as more than 500ml blood loss within 24hrs of vaginal delivery and 1000ml after caesarean section. However visual estimation of blood loss are usually inaccurate, already anemic patient or those with low BMI, PIH, may go for complications earlier. This delay in recognizing significant PPH can lead to an alarming situation. To be vigilant and overtreat any bleeding, especially within 1st hour of postpartum should be the rule.

Causes of primary PPH:

1. Antenatal high risk factors – can be identified early and obstetrician and patient can be ready to tackle it

- ❖ 3 or more parity
- ❖ Increased maternal age

- ❖ Obese mother
- ❖ Uterine problems like fibroid, chorioamnionitis, previous caesarean
- ❖ Previous history of PPH
- ❖ Uterine overdistention – big baby, polyhydramios, multiple pregnancy
- ❖ Placental –accereta, abnormal placentation, previa
- ❖ Others – PIH, inherited/acquired bleeding disorders, anticoagulant drugs.

2. Intrapartum – can occur unexpectedly during labour.

- ❖ Distended bladder
- ❖ Traumatic – genital tract lacerations/hematoma
- ❖ Retained placenta tissue
- ❖ Uterine atony, invertion, rupture
- ❖ Prolonged labour, precipitate labour, oxytocin use, instrumental delivery
- ❖ Coagulopathy due to obstetric causes

Antenatal Preparations:

- ❖ Educate patient and family about the possibility of PPH.
- ❖ Correct anemia and try to ensure hemoglobin of atleast 11g/dl at the time of delivery.
- ❖ Know the blood group of the patient and any high risk factors.
- ❖ Arrange blood or have a potential blood donor ready

Labour Room Preparations:

- ❖ Adequate light/spotlight
- ❖ Cervical inspection set – speculums, sponge holding forceps 3, cotton balls
- ❖ Suction, provision for oxygen
- ❖ Condom tamponade/Bakri balloon
- ❖ Non pneumatic anti shock garment
- ❖ PPH tray with –
  - ✔ 16 G cannula 2
  - ✔ 18 G cannula 2

- ✔ 14 G cannula 2
- ✔ IV drip set 2
- ✔ Blood transfusion set 2
- ✔ IV fluids – NS 5, DNS 2
- ✔ Syringes10ml 5, 5ml 5, 2ml, 10
- ✔ Foleys catheter, urobag
- ✔ Tubes to collect blood samples
- ✔ Lab/ blood bank forms
- ✔ Sterile wipes, scissors, plaster
- ✔ Drugs

- ❖ PPH protocol should be displayed and staff should be aware of it.
- ❖ List of phone numbers of doctors, lab, blood bank, staff should be clearly displayed.
- ❖ Massive transfusion protocol should also be available.
- ❖ Watch out for tachycardia, hypotension indicating concealed blood loss – vulvovaginal or Broad ligament hematoma.

During labour preparations:

- ❖ Be aware of the patient's history, antenatal chart and high risk factors.
- ❖ Practice active management of third stage of labour – oxytocin augmentation, controlled cord traction for delivery of placenta, 10 units of oxytocin IM soon after delivery of anterior shoulder.
- ❖ Have a standard practice of measuring blood loss – visual estimation, number of pads soaked and measurement of blood in suction bottle
- ❖ Call for help and take steps to arrest bleeding immediately.

Vaginal Delivery:

- ❖ Give proper perineal support
- ❖ Make sure IV line and cannula are patent
- ❖ Remove placenta if partially separated and inspect to see that it is entire
- ❖ Bimanual compression of the uterus

- ❖ Clamp any bleeding, look for tears especially para urethral
- ❖ Ensure ventouse/forceps is properly applied before use.
- ❖ Pressure pack vagina if needed
- ❖ Foleys catheter to drain the bladder

Cesaerean Section:

- ❖ Alert anesthetist in case of any bleeding
- ❖ Remove placenta if partially separated
- ❖ Exteriorize uterus and do bimanual compression
- ❖ Look for lateral extension
- ❖ Additional IV line arrangement

Medical management of PPH:

- ❖ Oxytocin 5 units diluted in 5ml normal saline and given IV in 2mins.
- ❖ Oxytocin 10 units IM
- ❖ Oxytocin infusion 20 units in 500ml normal saline at 10 drops/min
- ❖ Inj. Ergometrin 0.2mg IM upto 5 doses 15 mins apart
- ❖ Inj. Carboprost 250mcg IM upto 8 doses 15 mins apart
- ❖ Tab. Mesoprostol 600mcg orally/rectally
- ❖ Ergometrin is contraindicated in hypertensives
- ❖ Carboprost is contraindicated in asthma

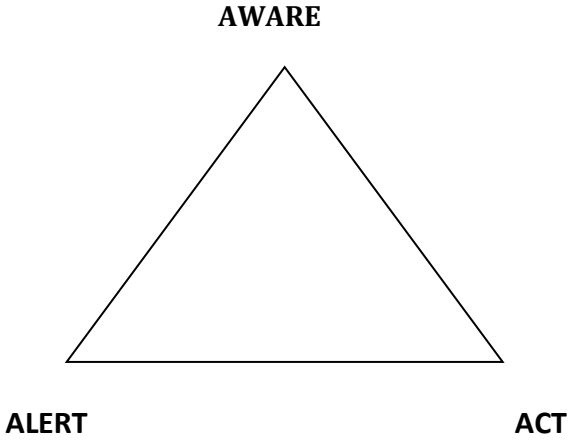
Persistant PPH:

- ❖ Call for help
- ❖ Arrange extra IV lines
- ❖ Collect blood for lab tests, coagulation studies, and cross matching
- ❖ If vaginal delivery, shift the patient to theatre
- ❖ Look for the cause of bleeding –
  - ➢ Tone
  - ➢ Trauma
  - ➢ Tissue

- Thrombin

And treat accordingly.

- If tears, bleeders clamp and ligate, apply pressure pack
- If atonic, resuscitation and medical management, watch out for DIC, bimanual compression, apply transvaginal uterine clamp/suction cannula/condom tamponade/bakri balloon.Selective arterial embolisation. Uterine/internal iliac artery ligation.Square stitches, compression stitches,uterine brace suture like B lynch. Aortic clamp as first aid to arrest bleeding.
- Emergency obstetric hysterectomy.
- Management of specific conditions – uterine inversion, placenta accrete, bleeding disorders.



Reference:

- Critical care obstetrics, 6th Edtion, Jefferey P. Phelan.

- KFOG Guideline on labour and delivery, 2nd Edition, V.P. Paily, Raji Raj, Afshana Sidhik.
- World Clinics Postpartum Hemorrhage Volume 2, Mala Arora.
- Summary of Proceedings form 63rd AICOG 2020, Lucknow.
- FIGO safe motherhood and newborn Committee International Journal of Obstetrics and Gynecology, 2012.

To Summarize