ANTEPARTUM HAEMORRHAGE (EXCLUDING PLACENTA PRAEVIA)

INTRODUCTION

Obstetric haemorrhage (both antepartum and postpartum) is one of the leading causes of maternal/perinatal morbidity and mortality in the developed world. Women who have an antepartum haemorrhage (APH) are at significant risk of a postpartum haemorrhage (PPH). APH complicates 2-5% of all pregnancies.

DEFINITION

APH is defined as any bleeding from the genital tract after the 20th week of gestation but before the onset of labour. Some of the causes of APH might also cause Intrapartum bleeding for example placental abruption or placenta praevia. See Placenta Praevia and Placenta Accreta Guideline (GLM0002).

Placental abruption can be considered to be clinically significant (where there is compromise to mother or baby) or not clinically significant (where there is no sign of fetal or maternal compromise). Non-clinically significant abruption is often called 'mild' which relates to a combination of a small amount of bleeding and a clinically stable mother and baby.

'Mild abruption' is a presumptive diagnosis based on a soft abdomen, usually non tender uterus, stable mother and baby with some vaginal bleeding. Definitive diagnosis is only possible in retrospect after placental delivery and the cause of the APH may not always be confirmed even then.

BACKGROUND

Women experiencing an APH require prompt assessment, identification of the underlying cause and appropriate resuscitation/response reflecting the maternal and fetal condition. Blood loss is often underestimated as the loss may be concealed within the uterus. Women who are otherwise healthy are able to compensate for acute loss without overt signs/symptoms of shock until sudden and rapid deterioration. In severe cases a multidisciplinary approach is vital including the Obstetrician, Midwife, Anaesthetist, Neonatologist and Haematologist.

CAUSES OF ANTEPARTUM HAEMORRHAGE

DIAGNOSIS	PRESENTATION	UTERUS	RISKS TO THE FETUS	MATERNAL RISK FACTORS
Cervical and lower genital tract bleeding – approx. 45% of APH	Heavy show, Cervical lesions/polyps, trauma, carcinoma, ectropion, vaginal tumours, vulval/vaginal varices May be spontaneous or following sexual intercourse or clinical examination. Haematuria, anal or rectal bleeding to be excluded.	Normal	Rarely affected	Cervical pathology Genital tract infections Domestic violence/sexual assault
Placenta praevia (GLM0002) -approx. 30% of APH	Painless PV bleeding, high presenting part/transverse lie, maternal shock	Non-tender and soft Irritable uterus	Prematurity Dependent on amount of blood loss	Previous uterine surgery, eg. LSCS, manual removal of placenta, fibroids IUGR, advanced maternal age, high parity
Placental abruption -approx.25% of APH	PV bleeding may be concealed/revealed/mixed. Constant abdominal pain (may also be painless). Maternal shock/collapse Back pain from a normally situated placenta. May present as IUFD.	Tender/woody /hard uterus Irritable uterus	Dependent on amount blood loss and pre-existing co-morbidities. Normal or abnormal CTG Fetal demise	Previous abruption Sudden reduction in size of over distended uterus Prolonged rupture of membranes Chorioamnionitis Pre-eclampsia/high BP IUGR Substance abuse, smoking Abdominal trauma/MVA Advanced maternal age Grand multiparity Thrombophilia ECV Domestic violence/assault
Uterine rupture	Bleeding (may be concealed) Sudden onset of constant sharp abdominal pain, however may be relatively painless in some cases. Very high presenting part Maternal shock	Contractions may stop Peritonism	Likely to be abnormal FHR with acute fetal compromise	Previous uterine surgery Parity 4 or greater Trauma Oxytocin infusion Domestic violence/assault
Vasa praevia - rare	PV blood loss after rupture of membranes No maternal shock Acute fetal compromise Vessel may be palpable on vaginal examination	Normal	Acute fetal compromise bradycardia/sinusoidal CTG trace	Low-lying placenta Succenturiate lobe/bipartite placenta Velamentous insertion of cord
Unclassified bleeding	Often painless Circumvallate placenta	Normal	Perinatal morbidity and mortality if associated with preterm birth	IUGR Abruption, preterm birth, preterm rupture of membranes.

MANAGEMENT

Consultation as per Section 88 Referral Guideline.

If a woman presents to a primary unit – stabilise, consult and transfer to the tertiary unit as soon as possible.

Management of APH in a Tertiary Environment

Response should be appropriate to the degree of compromise to mother or fetus

- Assess woman's general condition using ABC approach.
- Monitor vital signs and document on MEWS chart, estimate blood loss.
- If women hemodynamically unstable, call for help, establish an airway, administer O_2 therapy or assist ventilation @ 15lts per minute, 2 x 16 gauge leurs and commence 2000mls crystalloid.
- Activate the Massive Transfusion Protocol (Ref. 4725).
- Send urgent bloods for CBC, clotting, U&E, LFT, Fibrinogen, Kleihauer (if RH negative), group and X match minimum 4 units. Fibrinogen levels rise in pregnancy so normal or low levels and prolonged prothrombin time suggest Disseminated Intravascular Coagulation (DIC).
- Early involvement of Consultant Obstetrician, Anaesthetist, Neonatologist and Haematologist is advised.

Assessment

Past medical, obstetric, gynae, surgical history including any bleeding in the current pregnancy. EDD, review USS reports, if presents as placenta praevia perform USS to identify placental location.

Amount of blood loss including colour, and consistency - weigh sanitary pads.

Abdominal examination noting pain, fundal height, contractions, tone, lie, guarding and fetal parts palpable.

Auscultate fetal heart – continuous CTG if ≥ 28 weeks (Fetal Heart Monitoring GLM0010) or hand held Doppler if ≤ 28 weeks. Enquire about fetal movements.

Vaginal examination using speculum only to assess site/amount of bleeding/cervical dilatation. Do not perform a digital examination before excluding placenta praevia/vasa praevia.

Any provoking incident e.g. trauma/sexual intercourse/MVA

Restoration of circulating blood volume

Establish IV access with 2x 16 gauge cannulas. Send bloods as directed above, (for minor APH consider if appropriate to place 2 x cannulas and send group and hold). Commence crystalloid fluid replacement of 2000mls.

Insert IDC with urometer and record urine output hourly on fluid balance chart C280020A. Output should remain ≥30mls per hour.

If blood transfusion required consider consultation with Haematologist regarding the appropriate therapy.

Control of bleeding

Consider mode of delivery. If maternal haemodynamic state can only be improved by delivery this should be considered irrespective of gestational age. See section on "Timing and mode of delivery".

Consider cell salvage. Close monitoring of vital signs.

Ongoing treatment for minor APH

Admit for assessment and ongoing observation.

If minor APH and/or minor provoking incident, once initial bleeding has abated and fetal monitoring is reassuring the women could be discharged and managed according to gestation and diagnosis with the advice to monitor fetal movements. Close fetal surveillance is necessary to identify IUGR and consider fortnightly growth scans if any concerns.

Correct and maintain Haemoglobin levels.

Fetal considerations

Consider corticosteroids if gestation ≤ 34 weeks.

If birth is imminent and the gestation is ≤30 weeks consider Magnesium Sulphate for Neuroprotection in Preterm Births Guideline (GLM0041).

Neonatal consultation.

Maternal considerations

Consultation for minor APH

Debrief the woman and her family.

Rh negative women –Anti D initially then take Kleihauer /flow cytometry for an estimation of feto-maternal haemorrhage and to confirm the amount of Anti D immunoglobulin required in total.

TIMING OF BIRTH

The timing of birth must weigh up the risk of the maternal condition and prematurity against those of continuing the pregnancy.

CONSIDER

- Gestational age
- Fetal condition
- Severity of abruption – blood loss, clinical signs and symptoms of haemorrhagic shock along with features of concealed blood loss such as abdominal pain and tenderness.
- Co-existent conditions such as pre-eclampsia, placental insufficiency or IUGR.
- If abruption is suspected:
  - **Greater than 36^{+0} weeks gestation,** even if bleeding appears to be minimal, delivery is recommended due to the risk of further, possibly catastrophic abruption.
  - Between **32 - 35^{+6} weeks' gestation** conservative management can be considered for mild placental abruptions with no evidence of fetal compromise
  - **Below 32 weeks gestation**, conservative management may be considered, even in the presence of substantive revealed bleeding or significant uterine tenderness unless evidence of maternal or fetal compromise.
- **If there is evidence of fetal compromise or coagulopathy birth should be expedited.**

MODE OF BIRTH

If the bleeding is significant but the women is stable, the CTG normal and the possibility of there being a placenta praevia has been excluded then vaginal birth can be attempted.

Indicated management;

- Continuous electronic fetal heart rate monitoring is indicated (see Fetal Heart Monitoring (GLM0010)
- The availability of blood products in the event of catastrophic bleeding.
- Active management of the third stage of labour- due to the significant risk of postpartum haemorrhage
- The use of an oxytocin infusion post-partum.
- Liaise with anaesthetist regarding the use of Tranexamic Acid

If there is evidence of maternal or fetal compromise, delivery should take place promptly, with concurrent stabilisation. This is usually by category one caesarean section unless vaginal birth is imminent and can be achieved safely.

There may be the need to activate the Massive Transfusion Protocol (Fluid and Medication Policy, Volume 12 Ref.4725).

Assess the placenta for pathological features and send for histological assessment. See Histological examination of the Placenta (GLM0031).

DOCUMENTATION

- MEWS (2406285)
- Fluid Balance Chart (C280020A Ref.887)
- ED Presentation for Women 20 Weeks Plus Pregnant Pathway (C240335 Ref.6508)

REFERENCES

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