

ANTEPARTUM HEMMORRHAGE (APH)

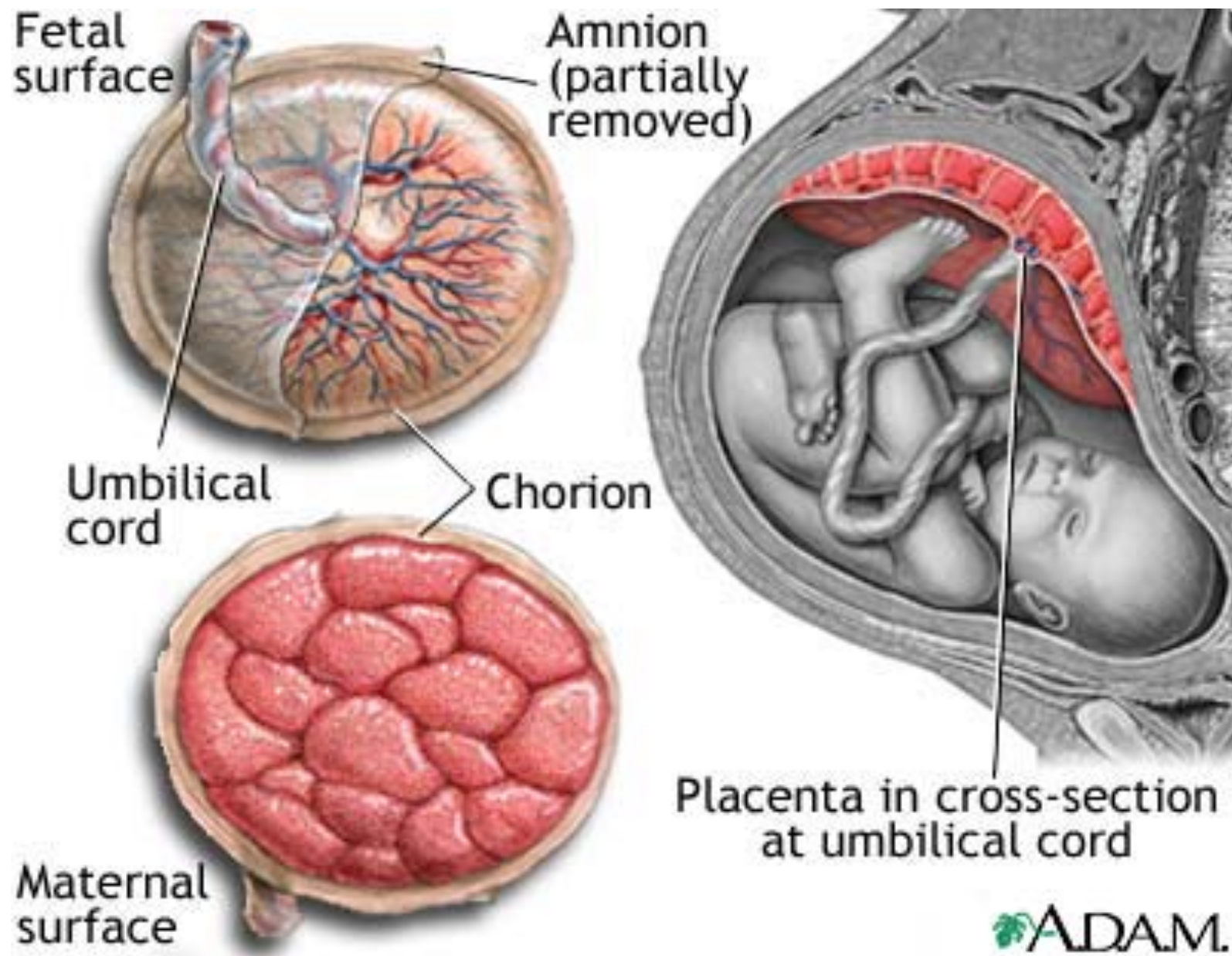
DR MICHOMA

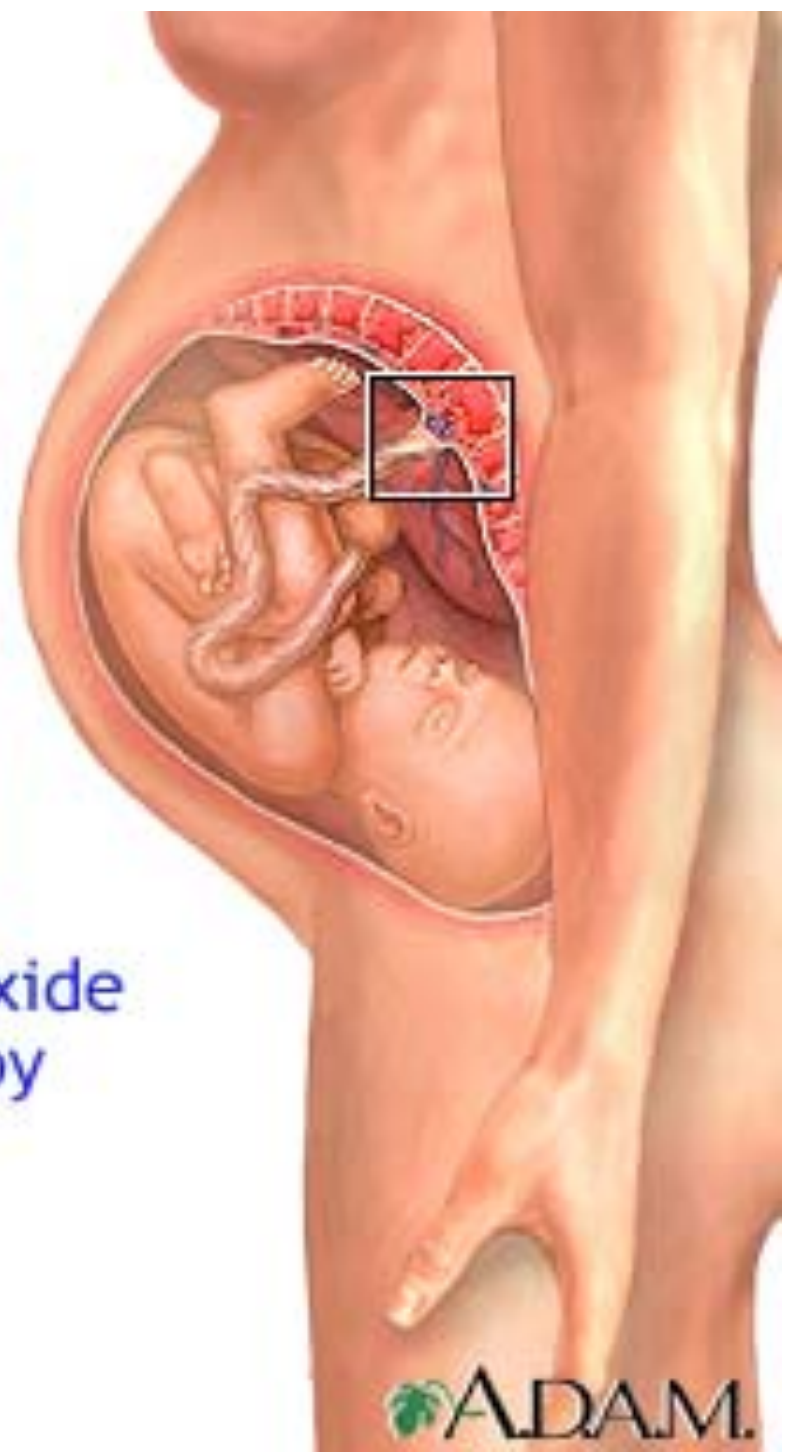
Objectives

- Definition of APH
- Know the important causes of APH.
- Appreciate that vaginal bleeding in pregnancy is potentially life threatening.
- Giving attention to maternal hemodynamic stability priority.

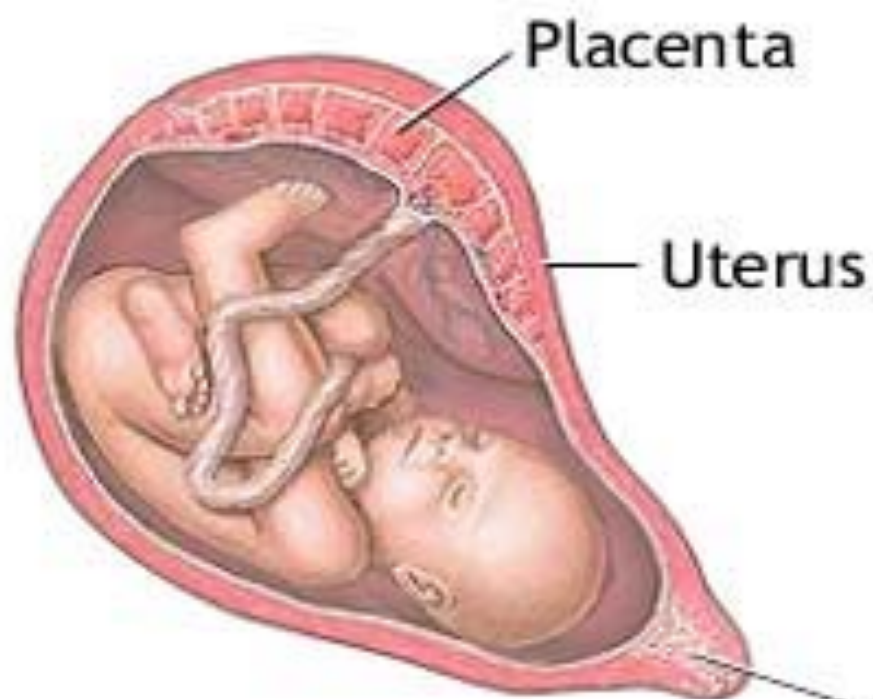
Definition

- Obstetrics is "bloody business."
- The term antepartum hemorrhage refers to uterine bleeding after 28 weeks of gestation before delivery of fetus that is unrelated to labor and delivery.
- The bleeding can be from a site above or below the cervix.
- Uterine bleeding from a site above the cervix before delivery is cause for concern.

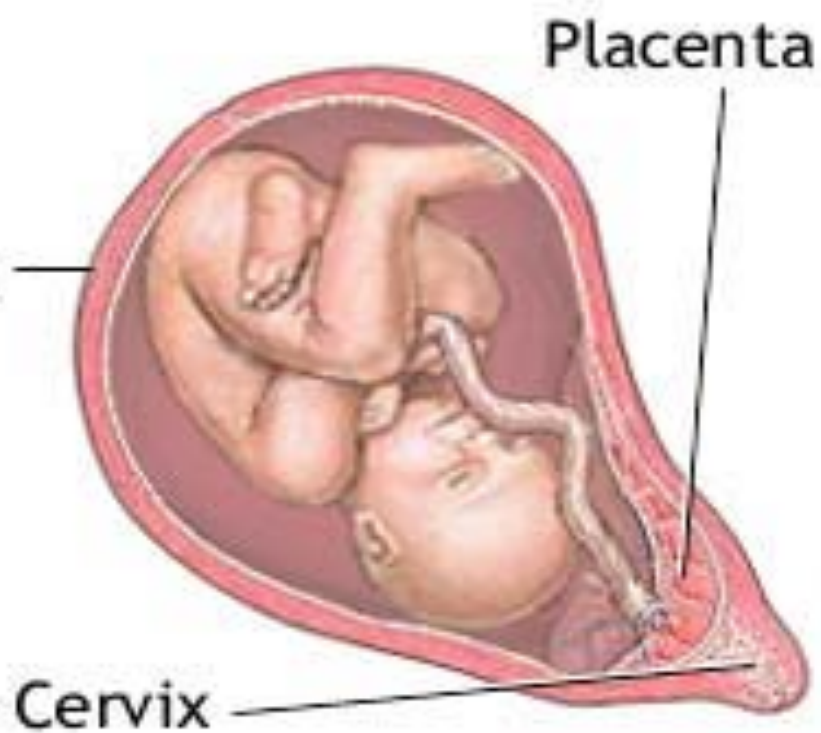




Normal placental attachment



Placenta previa (complete)



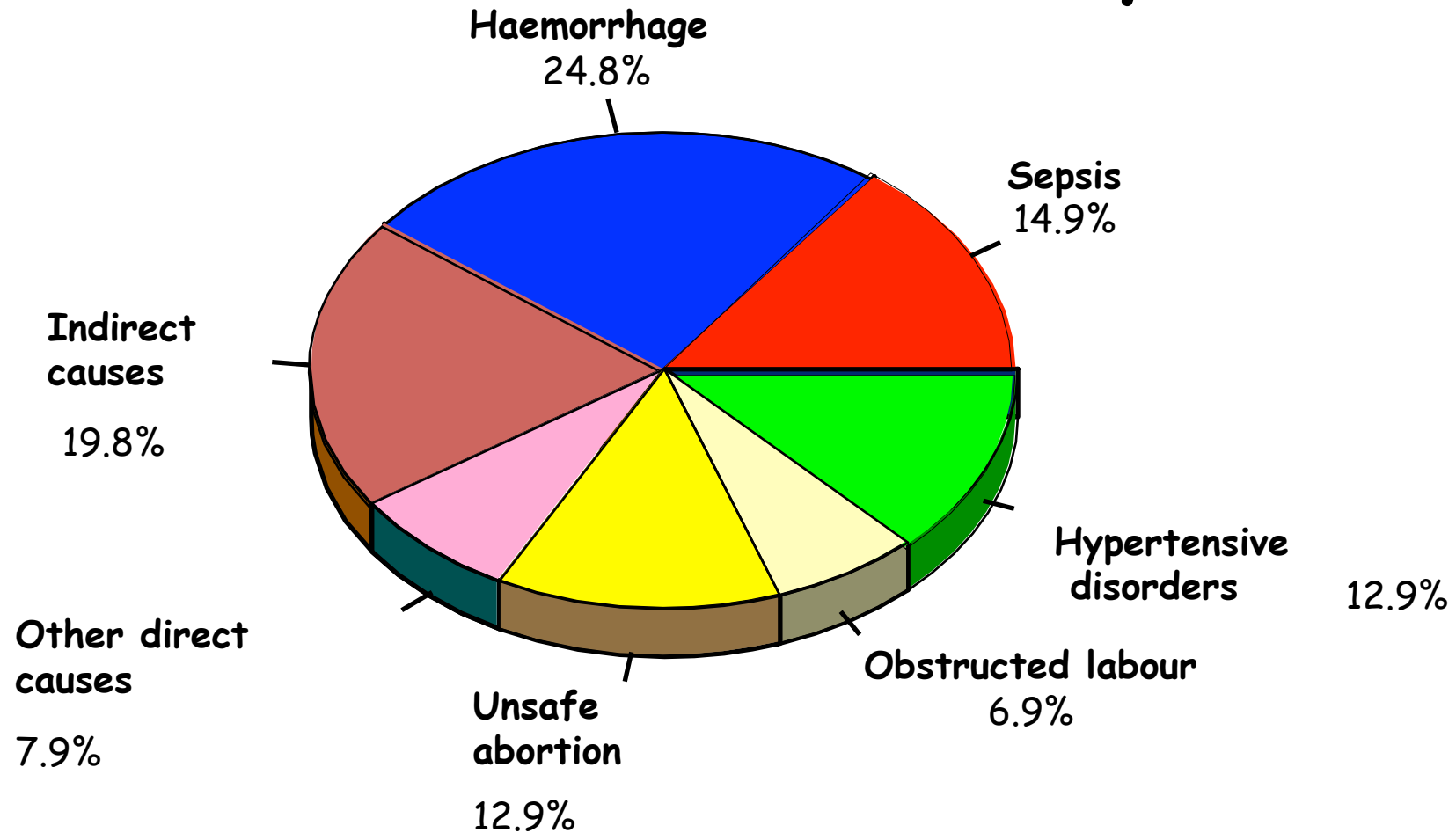
Causes of APH

- Placenta previa (20 percent)
- Abruptio placenta (30 percent)
- Uterine rupture (rare)
- Vasa previa (rare)
- Cervical Lesions
- Vaginal lesions
- Unidentified causes

Obstetric is an Emergency

- Death from hemorrhage still remains a leading cause of maternal mortality.
- In countries with fewer resources, the contribution of hemorrhage to maternal mortality is even more striking

Contribution of hemorrhage to maternal mortality



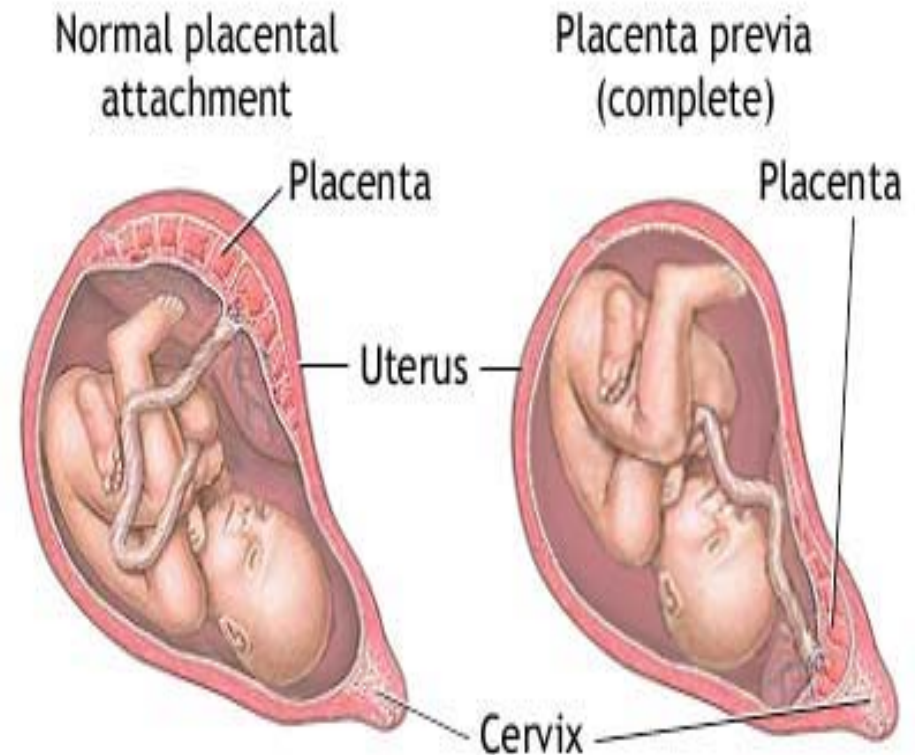
Source: Safe Motherhood Fact Sheet on Maternal Mortality, 1998.

Digital Vaginal Examination

- In contrast to bleeding in the first half of pregnancy, digital examination of the cervix **SHOULD BE AVOIDED** in women presenting with bleeding in the second half of pregnancy until placenta previa has been excluded.
- Digital examination of a placenta previa can cause immediate, severe and life threatening hemorrhage.
- Do speculum examination

A) PLACENTA PRAEUIA

- When the placenta is implanted partially or completely in the lower uterine segment.
- Placent abnormally close to the internal os within zone of trauma(coitus or digigal VE), cervical effacement and dilatation.



TYPES OF PLACENTA PRAEVIA

- TYPE I-Placenta encroaches lower segment, does not reach internal os.
- TYPE II(marginal)-placenta reaches margin of internal os but does not cover it.
- TYPE III(partial)-placenta partially covers the internal os.
- TYPE IV(complete)-placenta completely covers the internal os, cervix can not dilate.

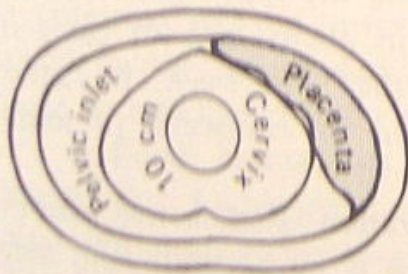


Figure 33-2. Normal placenta.

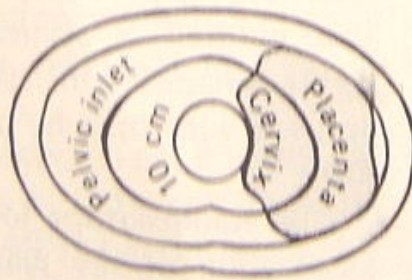
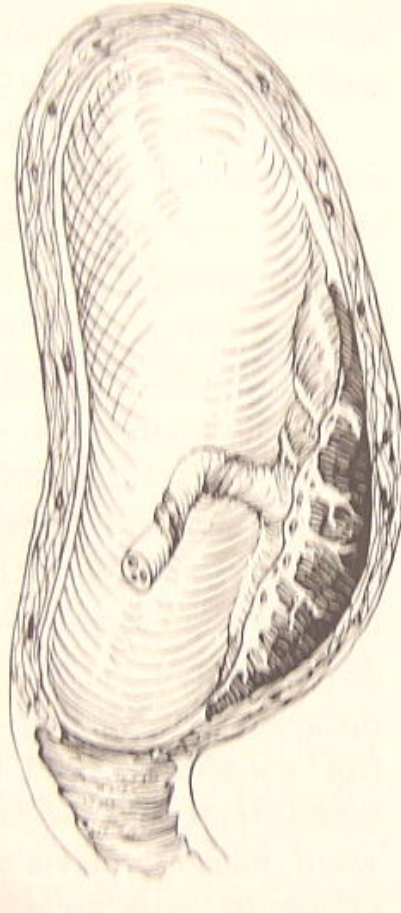


Figure 33-3. Low implantation.

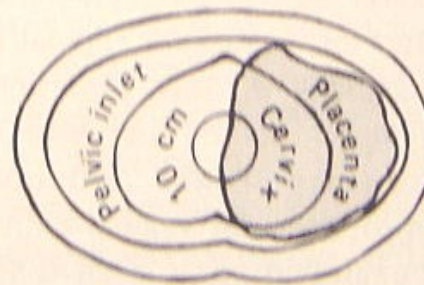
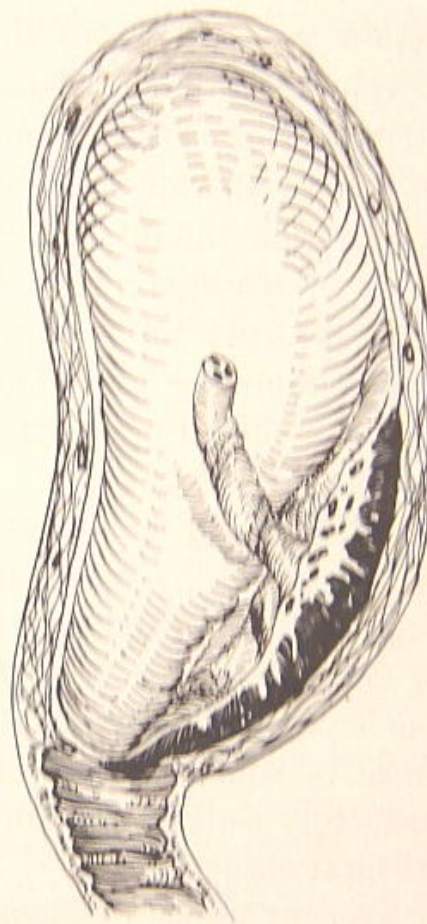


Figure 33-4. Partial placenta previa.

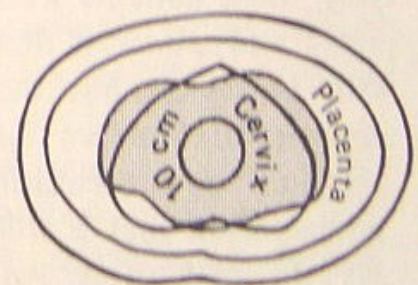
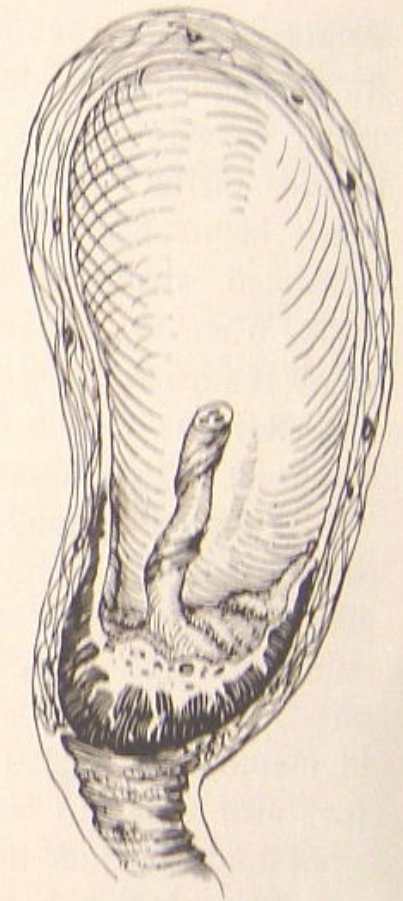


Figure 33-5. Complete placenta previa.

CLINICAL PRESENTATION

- **PRAEVIA OFTEN BEGINS WITH PAINLESS VAGINAL BLEEDING!**
- The characteristic clinical presentation of placenta praevia is painless vaginal bleeding after 20 weeks of gestation; this occurs in 70 to 80 percent of patients who have low lying placenta.
- Ten percent of women with praevia reach term without bleeding (incidentally detected by ultrasound examination and remain asymptomatic)
- Bleeding can range from only spotting to massive life threatening haemorrhage.

Bleeding

- Can start as spotting in 1st trimester.
- 1/3 initial bleeding in < 30 weeks associated with transfusion , pre-term delivery and high perinatal mortality
- 1/3 bleed between 30-36 weeks
- 1/3 bleed after 36 weeks
- 10% reach term without bleeding
- Bleeding more in third trimester

Risk factors

- Endometrial scarring. Risk factors associated with endometrial scarring include:
 - ✓ Increasing number of prior cesarean
 - ✓ Increasing parity
 - ✓ Increasing maternal age
 - ✓ Increasing number of prior curettages for spontaneous or induced abortions

Risk Factors

- The need for increased placental surface to increase fetal oxygenation:
 - ✓ Maternal smoking
 - ✓ Residence at higher altitudes
 - ✓ Multiple gestation

Conditions associated with placenta praevia

- Placenta accreta
- Fetal malpresentation
- Premature rupture of membranes(PROM)
- Intrauterine growth restriction
- Premature labor and premature delivery.

EVALUATION

- Any pregnant woman beyond 1st Trimester presenting with PV bleeding requires a sterile speculum examination, followed by a diagnostic ultrasound scan unless previous documentation confirms placenta praevia!
- Give attention to patient's hemodynamic status.

DIAGNOSIS

- Ultrasound provides the simplest, most precise and safest method of placental location.
- Double set-up examination - less used these days. Done in theatre with readiness to perform emergency C/S in case life threatening bleeding is provoked by the digital vaginal examination.

MANAGEMENT

Depends on three case scenarios below:

- ❖ Asymptomatic mothers discovered by routine scan
- ❖ Actively bleeding mothers
- ❖ Mothers who are stable after one or more episodes of active bleeding
- Always give priority to ABCs/ maternal hemodynamic stabilization in acute states.

Acute care/ emergency situation

- Vaginal bleeding requires admission till it stops.
- I.V line /crystalloids
- Maintain haemodynamic stability and adequate urine output 30ml / hour
- GXM blood group and antibody screen
- Transfusion when need be.
- Changes in haemodynamic parameters and rate of bleeding should be noted.

(BP, maternal/ fetal heart rates, peripheral perfusion, urine out put)

Management of acute case ct

- Coagulation screen if co-existing abruptio placenta or massive transfusion.
- Fetal monitoring
- Maternal monitoring
 - Bp, heart rate, Foleys catheter, vaginal blood loss
- Tocolysis- No tocolysis to actively bleeding women

Consider if conservative management is the way forward.

- Emergency delivery by C/S if continues to bleed regardless of fetal maturity.

Asymptomatic PP>20wks

- Sonographic follow up. Serial 4 weeks interval after 28 weeks
- Avoidance of coitus or vaginal exam
- Exercise restriction (less physical activity.)
- Counselling
- Can be managed as outpatient with clear instructions to present to hospital immediately incase of repeat bleeding.

Conservative management

- Give steroids to mature lungs in anticipation of premature delivery if gestation age 28 to 34 weeks.
 - Hospitalization versus outpatient case base analysis.
 - patient return to hospital quickly
 - adult companion 24hours
 - reliable and able to maintain bed rest
- understand the risk

Indication for delivery

- Non reassuring fetal status
- Life threatening refractory maternal haemorrhage
- Significant vaginal bleeding after 34 weeks.
- Elective delivery at 37 completed weeks.

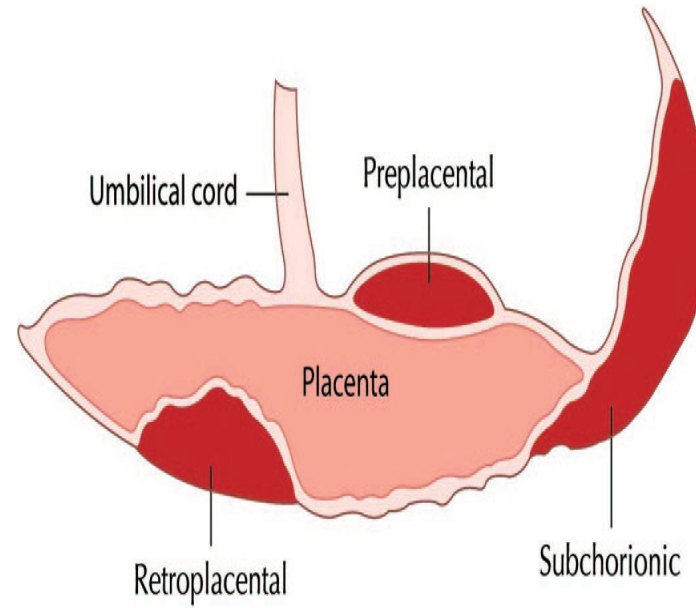
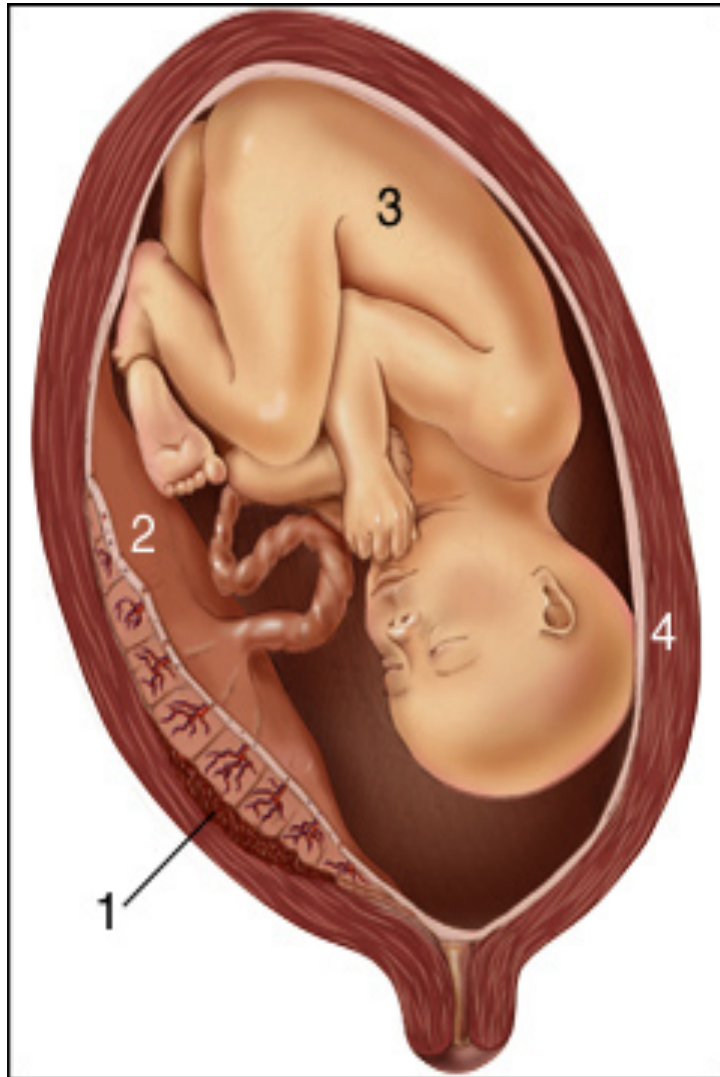
Delivery

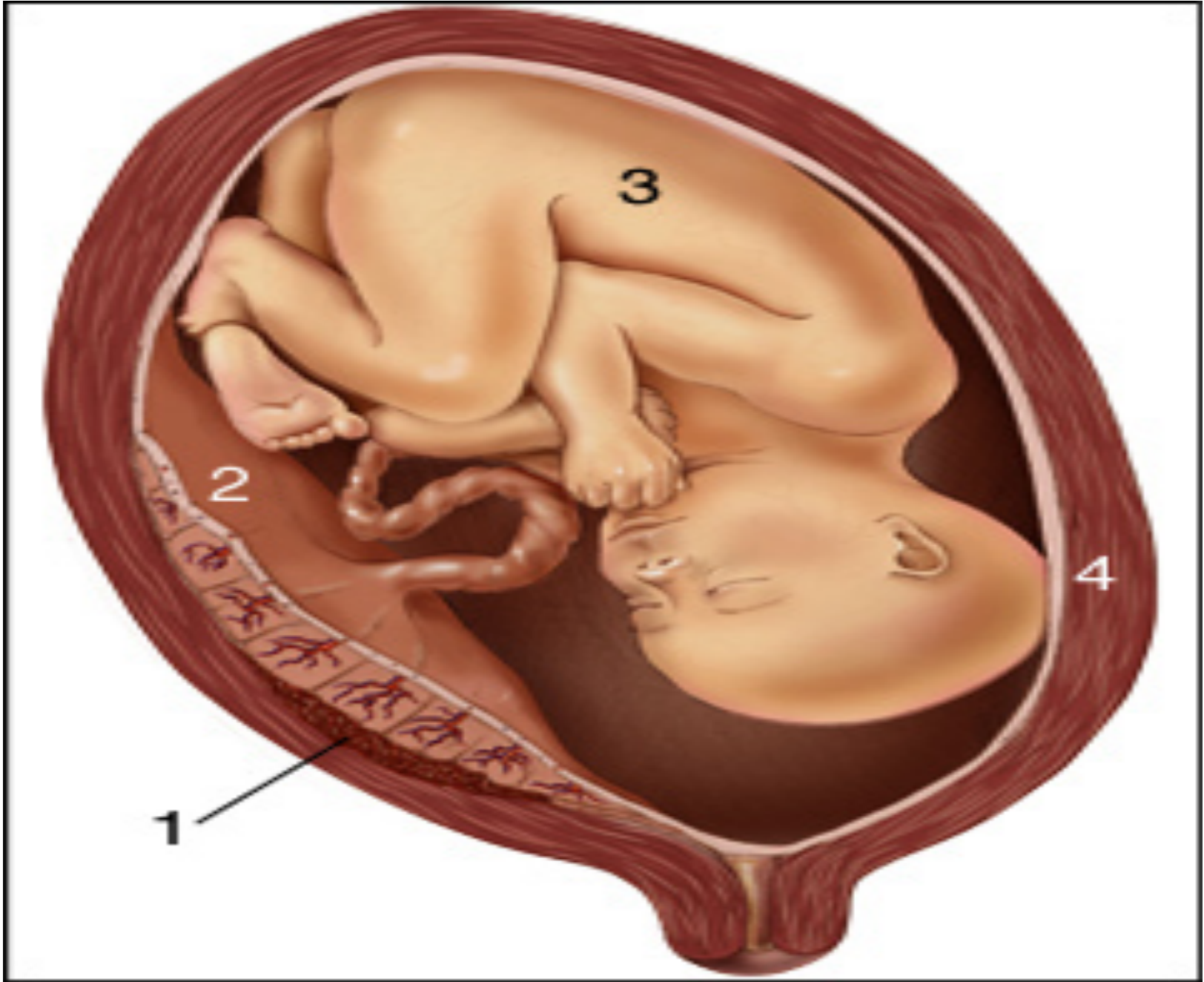
- Elective C/S delivery at 37 completed wks
- Caesarian section and or vaginal delivery depending on type and condition of mother.
- Type I and II (anterior) vaginal delivery.
- Type II(posterior), III and IV C/S.
- Prepare for blood loss during or after delivery, always have blood ready(Group,cross-match and save)

B) ABRUPTIO PLACENTA

- Premature separation of a normally implanted placenta prior to delivery of the fetus.
- The immediate cause of the placental separation is either due to the rupture of defective maternal vessels in the decidua basalis, where it interfaces with the anchoring villi in the placenta or the result of a mechanical force (eg, blunt trauma to the abdomen or rapid uterine decompression)

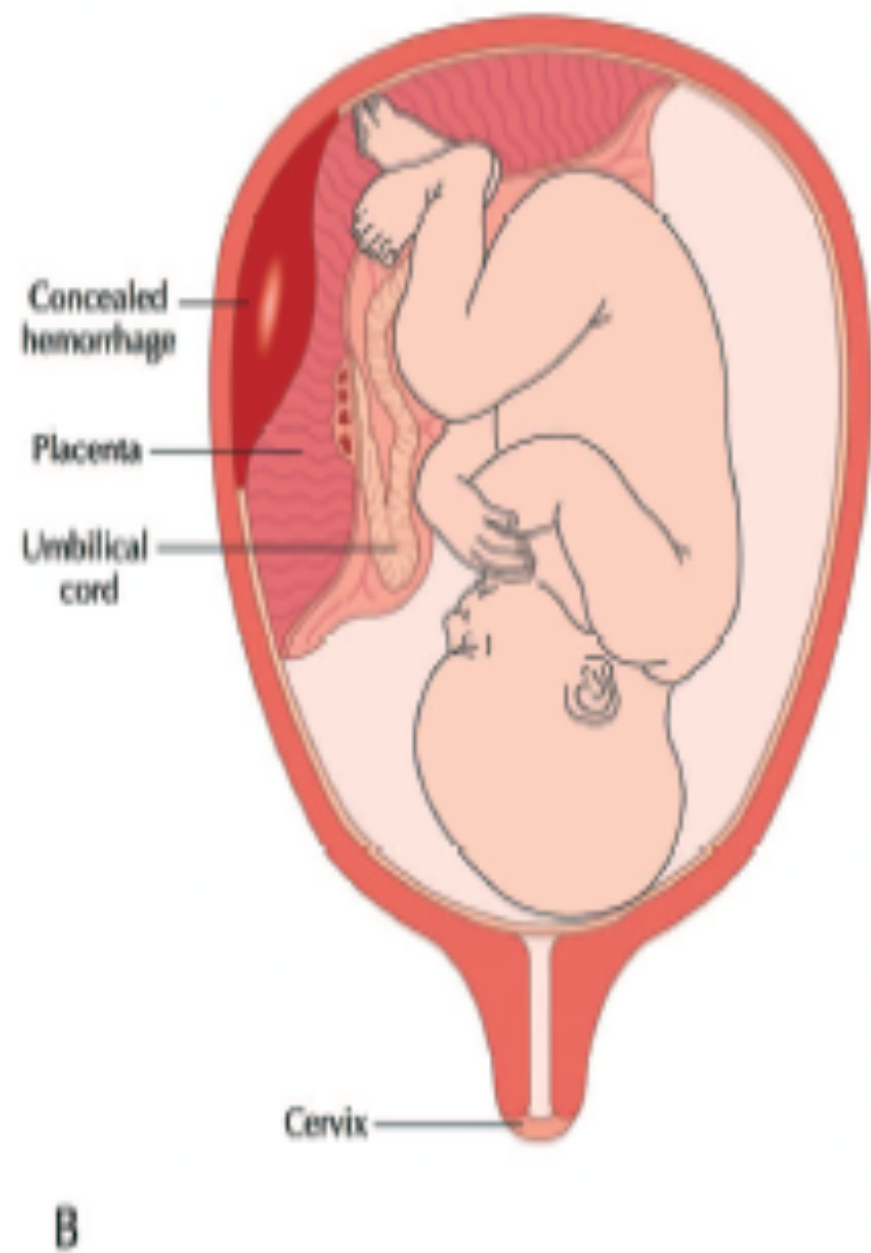
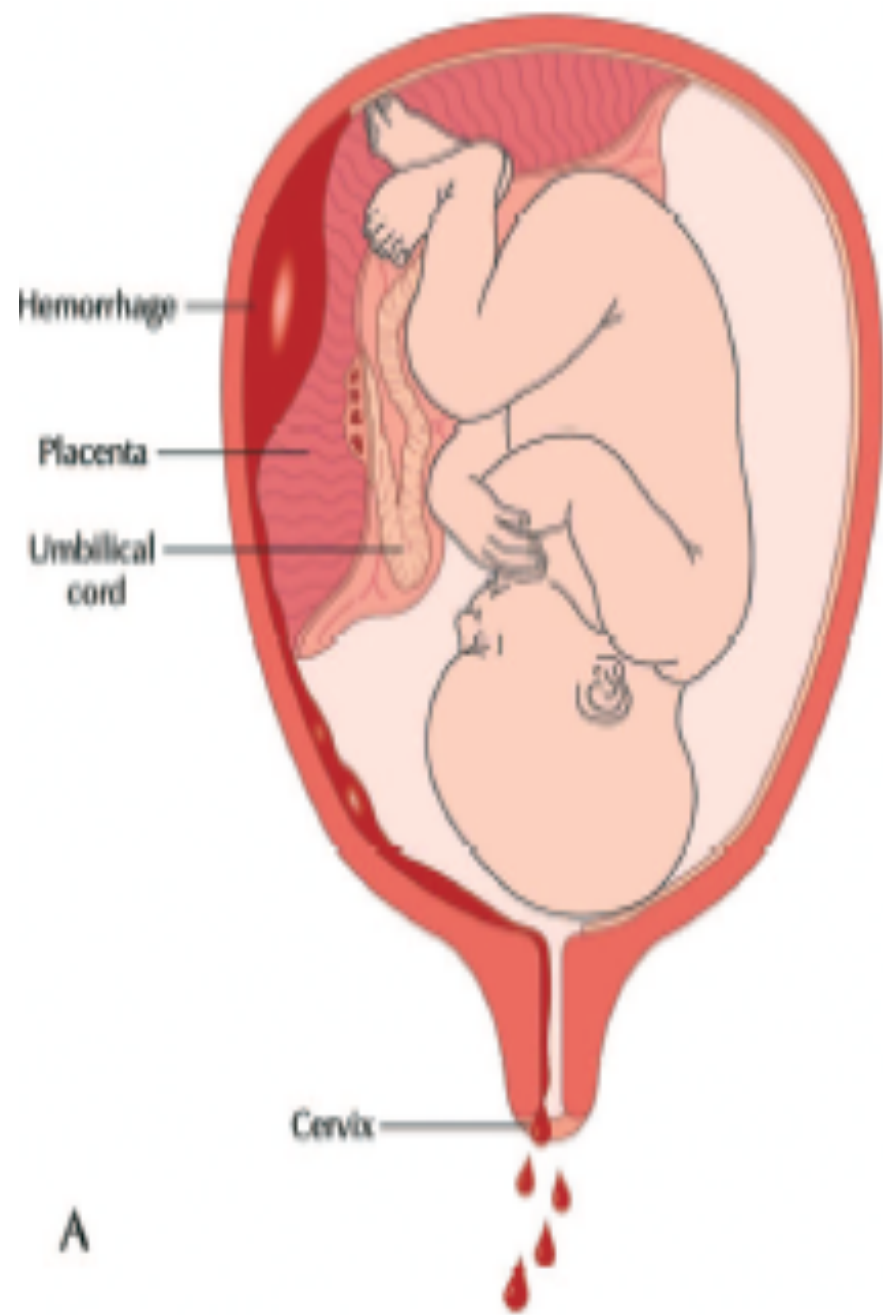
SITES OF PLACENTAL BLEEDING





TWO PRESENTING TYPES

- Revealed Bleeding-
clinical abruptio
classically presents with
vaginal bleeding,
abdominal and/or back
pain, and uterine
contractions.
- Is present in 80-90% of
abruptio cases
- Concealed abruptio -
Occasionally, a woman
with placental
abruption will present
with only preterm labor,
and no vaginal bleeding.
- Will have profound
shock disproportionate
to any bleeding.
- Only 10% of abruptio



Risk Factors

- Previous abruption - (RR 10)
- Hypertension – (2.1 - 4.0)
- HTN with pre-eclampsia – (7 - 8)
- pPROM – (2.4 - 5.0)
- Tobacco – (1.4 – 2.0)
- Cocaine – (many fold)
- Twins – (2 fold)
- Chorioamnionitis – (2 – 2.5)
- Others: trauma, fibroids, thrombophilias, circumvallate,
polyhydramnios

Clinical manifestation

- Varies widely depending on site, extent, type....
 - Vaginal bleeding 78% - 84%
 - Abdominal pain 62% - 66%
 - Uterine tenderness
 - Uterine Hypertonus
 - Backache – especially with posterior placenta
 - Acute fetal distress
 - Fetal demise(IUFD)
 - Preterm labour
 - Hypovolemic shock

COMPLICATIONS OF ABRUPTIO

Maternal

- Hypovolemia related to blood loss
- Need for blood transfusion
- Disseminated intravascular coagulopathy(DIC)
- Renal failure
- Adult Respiratory Distress Syndrome
- Multisystem organ failure Death
- Postpartum hemorrhage- couvlerer uterus

COMPLICATIONS OF ABRUPTIO

Fetal

- Growth restriction (with chronic abruption)
- Fetal hypoxemia or asphyxia
- Preterm birth
- Perinatal mortality

ABRUPTIO AND DIC

- Fetus and placenta in-utero so uterus unable to contract to stop bleeding. So coagulation cascade continually activated leading to exhausting of coagulation factors (consumptive coagulopathy).
- Fulminant DIC occurs in:
 - 1 – 2% of abruption
 - 30% of Abruption with IUFD
- Associated with high maternal mortality.

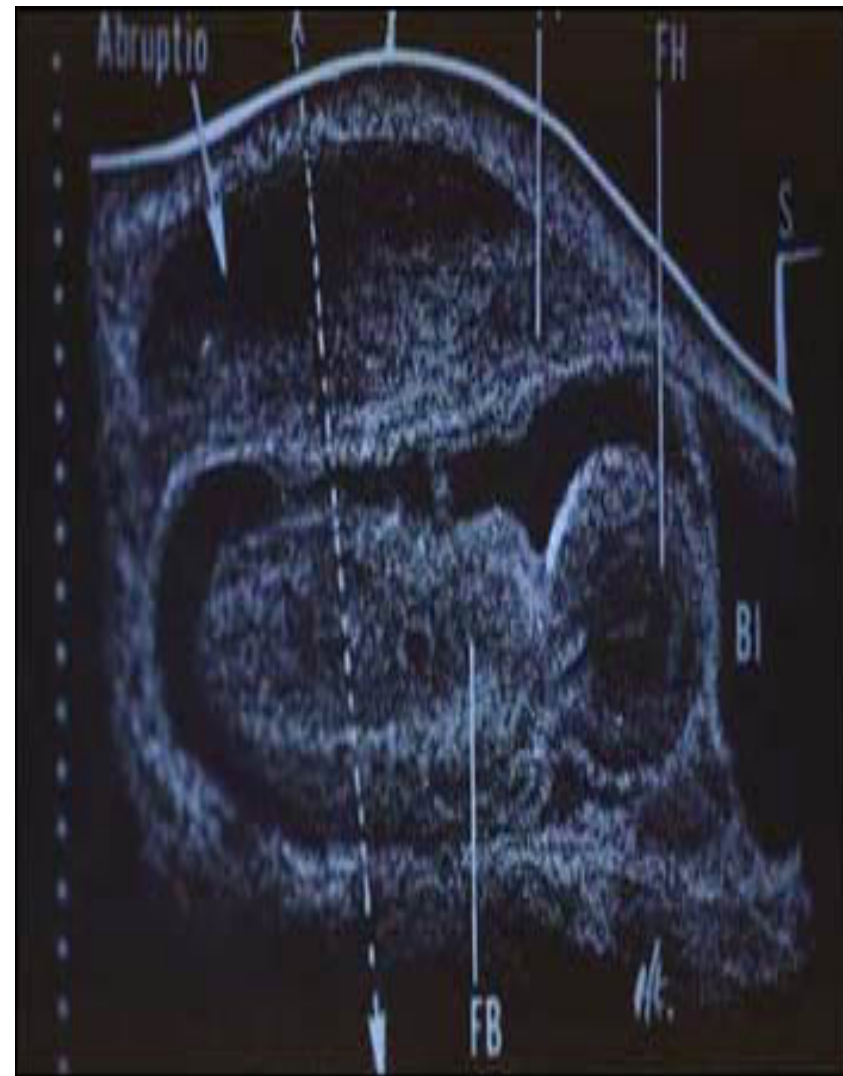
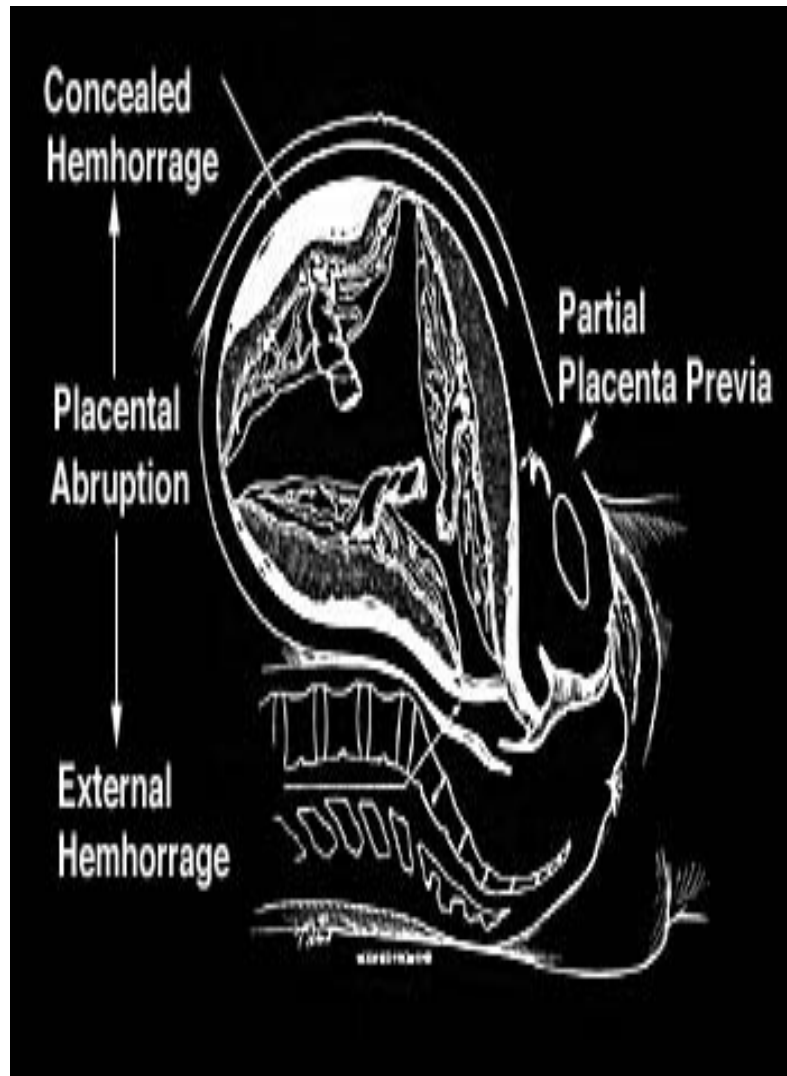
Grading of Abruptio

- Grade 0:
 - Asymptomatic – Retroplacental clot(RPC) seen after placental delivery as only feature of abruptio.
- Grade I:
 - Vaginal bleeding & uterine tenderness
 - Visible RPC after delivery
 - No coagulopathy
 - Maternal vitals normal
 - No fetal distress

- Grade II:
 - Maternal tachycardia
 - Fetal compromise
 - Severe uterine tenderness
 - Hypofibrinogenemia
 - Large RPC
- Grade III
 - Uterine tetany
 - Hypovolemia and shock
 - Severe uterine tenderness
 - Mostly IUFD
 - Hypofibrinogenemia
 - 30% have DIC (IIIB)
 - 70% do not have DIC (IIIA)

Diagnosis

- High index of suspicion.
- Ultrasound: - good for concealed variety, but not for revealed type.
 - Poor sensitivity: 24%-40%
 - Good specificity: 85%-96%
 - Good PPV: 88%
 - Poor NPV: 53%



Management

- Placental abruption is an obstetrical emergency.
- All patients with suspected abruption should undergo rapid initial evaluation of the fetus and mother.
- The mother should have large bore intravenous lines placed and she should be evaluated for blood loss (hypovolemia) and coagulopathy.

Management

- After initial evaluation and stabilization, the management of pregnancies complicated by abruption depends on whether the fetus is alive or dead, the gestational age, and maternal/fetal status.
- When there is partial placental separation, total abruption may occur suddenly and without warning.

Management

- For pregnancies with abruption at or near term with a live fetus, do expeditious delivery
- Cesarean delivery is indicated if there is fetal distress, there is ongoing major blood loss or other serious maternal complications, or when vaginal delivery is contraindicated.
- **Otherwise, vaginal delivery may be attempted.**Artificial rupture of membranes with syntocinone augmentation is followed by rapid labor due to tonus uterus.

Abruptio with DIC

- For women with coagulopathy, transfusion of blood products should preferably occur prior to surgery. If this is not possible, blood, fresh frozen plasma, cryoprecipitate, and platelets, as required, should be aggressively administered early in the surgery.
- **Expect significant blood loss especially if C/S.**

Abruptio Remote from Term

- For pregnancies with abruptio remote from term with reassuring fetal and maternal status, delaying delivery to gain further fetal maturation .
- Administer a course of glucocorticoids (**Dexamethasone or Betamethasone**) to women with pregnancies between 24 and 34 weeks of gestation to accelerate lung maturation.

If Fetus is Dead(IUFD)

- When fetal death has occurred, the mode of delivery should minimize the risk of maternal morbidity or mortality.
- **Vaginal delivery is preferable** unless urgent delivery is needed to enable stabilization of the mother, or there are obstetrical contraindications to vaginal birth.

Conclusion

- Any active vaginal bleeding of a pregnant woman is a potential obstetrical emergency.
- Women with active bleeding should be hospitalized for close maternal and fetal monitoring and supportive care.
- Always first give attention to hemodynamic stabilization- I.V line, GXM, Oxygen, ABC.
- Be Decisive and act fast.

Conclusion

Placenta Praevia

- Mode of delivery depends on type of praevia.
- Be ready for premature delivery- give steroids b/n 28-34 weeks.
- If life threatening rebleeding occurs, deliver without regard to fetal maturity.

Abruptio Placenta

- The risks of abruption for the fetus depend on its severity and gestational age at which it occurs, whereas for the mother, the risks depend entirely on its severity.
- The risk of recurrence is 5 to 15 percent, compared to a baseline incidence of 0.4 to 1.3 per cent.