Ectopic pregnancy and abortion

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Case study

- I am 6 wks pregnant & have pain &bleeding

✓ A 34 yrs old women presents with a history of 6 wks of amenorrhoea,abdominal pain and slight vaginal bleeding. She stopped the oral contraceptive pill 2 yrs ago in order to conceive ,and she recently booked an appointment to see her doctor because she was concerned that she was infertile. She has previously had an appendectomy and PID. Recently she has some times been feeling dizzy. A home pregnancy test is positive.

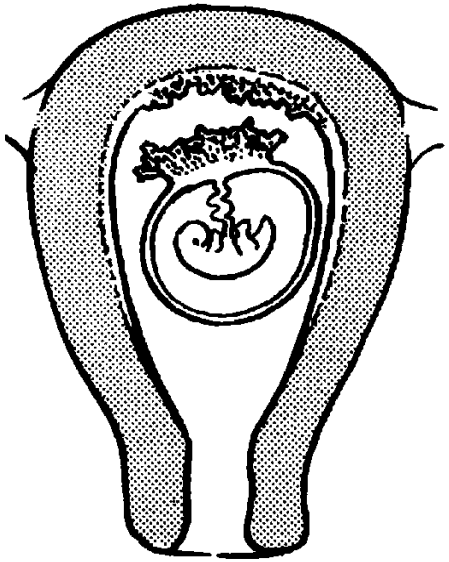
Question for the case scenarios given

1. What is the likely differential diagnosis ?
2. What issues in the given history support the diagnosis.
3. What clinical examination would you perform and why?
4. What investigation would be most helpful and why?
5. What treatment options are appropriate?

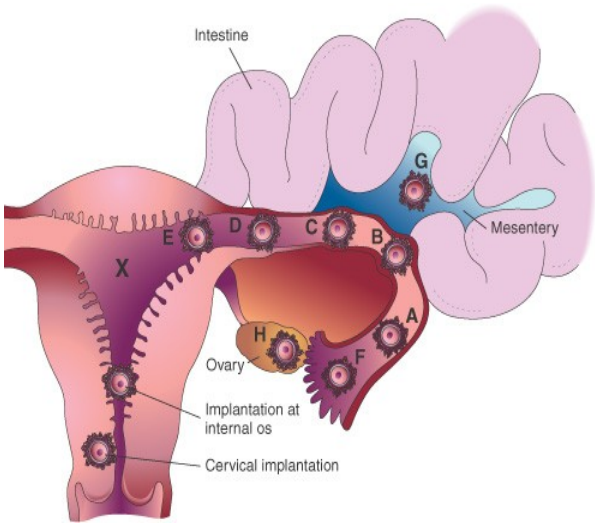
Bleeding in early Pregnancy

- INTRODUCTION
- Bleeding in **early pregnancy** means vaginal bleeding that occurs during the first 22 weeks of pregnancy
- Bleeding in **late pregnancy** means After 22 to 28 weeks of pregnancy (in most African countries 28 weeks) and During labor before childbirth.

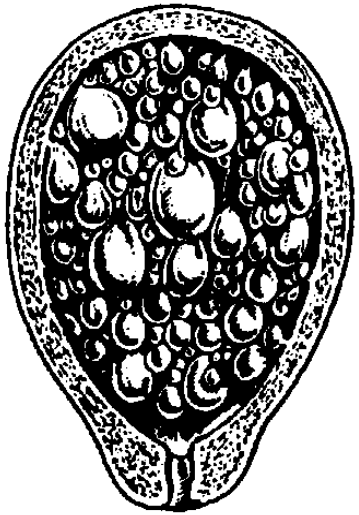
Causes of early bleeding in pregnancy



Abortion



Ectopic pregnancy



Hydatidiform mole

Abortion

Definition_

- It is expulsion or extraction of products of conception before fetal viability i.e. before 28 weeks of gestation or before 1000 g weight in Ethiopia .

Incidence of Abortion

- One of the five leading causes of maternal death
- World wide about 46 million (22%) end in abortion
- 20 million are unsafe
- 95 % of this death occur in developing countries

Incidence of Abortion con…

- In Ethiopia abortion accounts for about 25-50% of maternal death
- Double failure =unable to prevent unwanted & unplanned abortion and unable to manage complications of abortion
- All this deaths and its complication are preventable if proper management of abortion is provided

Causes of Miscarriage

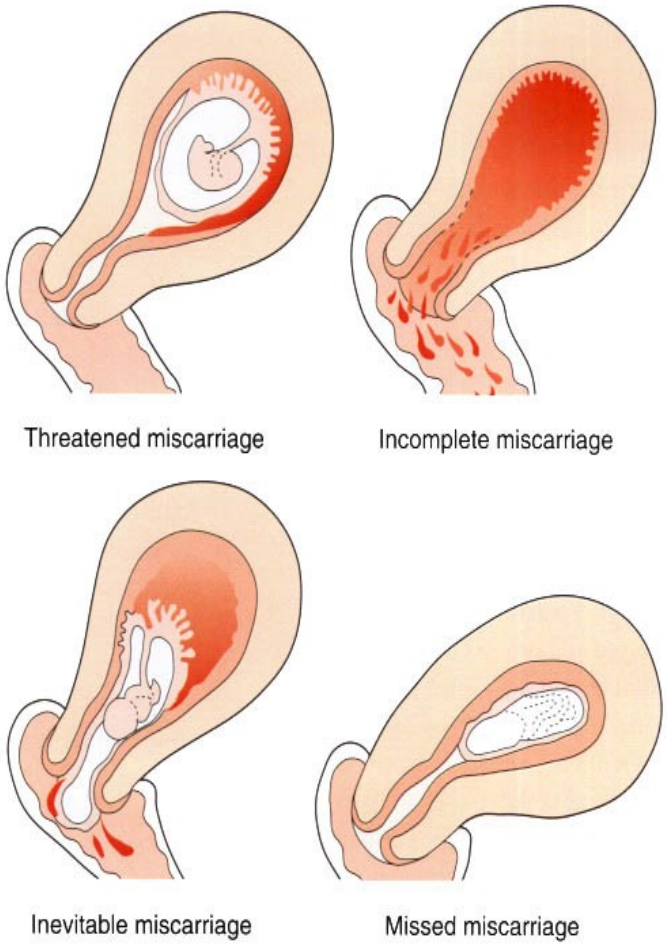
- 60% chromosome abnormalities
- 30% placental malformation
- 10% miscellaneous

Types

- Based on onset
- Based on action
- Based on clinical features

Types

1. Threatened abortion
2. Inevitable abortion
3. Incomplete abortion
4. Complete abortion
5. Missed abortion
6. Septic abortion



Threatened abortion



- It is presumed that a pregnancy is threatening to abort when vaginal bleeding occurs before the 24th week.
- 1 in every 4 pregnancies
- Half will abort, Half will be OK

Threatened abortion

1. **History** → Mild vaginal bleeding.
   → No abdominal pain or mild abdominal pain
2. **Examination** → Good general condition.
   → The cervix is closed
   → The uterus is usually the correct size for date
3. **U/S** → which is essential for the diagnosis Showed the presence of fetal heart activity

Management of Threatened Abortion

- Medical treatment usually not necessary.
- Advise women to avoid strenuous activity and sexual intercourse.
- If bleeding stops,folow up in antnatal clinic. Reassess if bleeding recurs.

Management of Threatened Abortion

- If bleeding persists, assess for fetal viability(pregnancy/ultrasound) or ectopic pregnancy(ultrasound).

- persistent bleeding,especialy in the presence of uterus larger than expected. may indicate twins or molar pregnancy.

Complete Abortion



9-week spontaneous complete abortion

- All the products of conception have been expelled
- Utrus smaller than dates
- Ligt bleeding or spotting

Complete Abortion feature

1. History
   - Heavy vaginal bleeding →which has been stopped.
   - lower abdominal pain which follows the bleeding →which has been stopped.
2. Examination
   - The cervix is closed
3. U/S
   - showed empty uterine cavity

Management

1. Evacuation & curettage in the presence of RPOC (Retained products of conception).
2. Post-abortion management.

Inevitable Abortion

- When it is impossible for the pregnancy to continue it is termed as inevitable abortion.
- the cervix is open but no products of conception have been expelled.

1.History

- Heavy vaginal bleeding.
  - with no passage of products conception.
- Severe lower abdominal pain which follows the bleeding

Inevitable Abortion con…

2. Examinations
   - Poor general condition.
   - The cervix is dilating and products of conception may be passing trough the os
   - The uterus may be the correct size for date.

3. U/S

Fetal heart activity may or may not present in

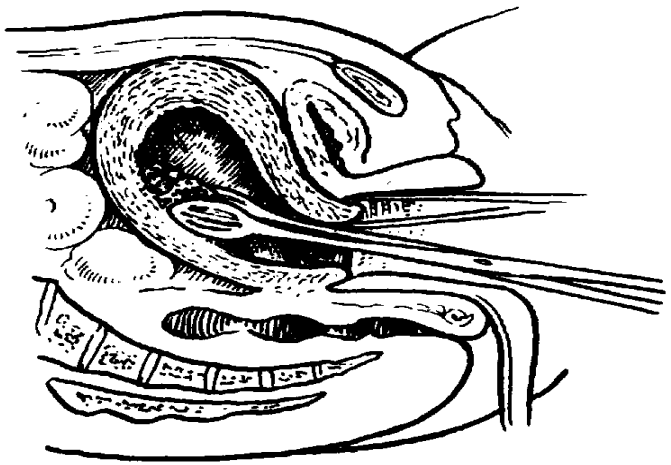
management

1.CBC , blood grouping

2.Resuscitation → large IV line, fluids & blood transfusion

3. Oxytoxic drugs

Ergometrine 0.5 mg IM + Oxytocin infusion (20-40 units in 500 cc saline) at 40dpm



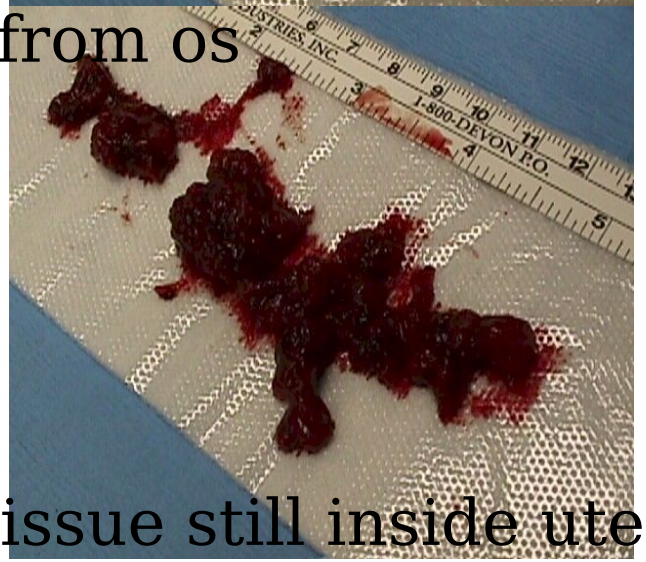
4. Evacuation & curettage

5.Post-abortion managem

Incomplete abortions



Tissue removed from os



Tissue still inside uterus

- When partial expulsion of the product of conception has been expelled.

1. History
   - Heavy vaginal bleeding.
     - with the passage of products of conception.
   - Severe lower abdominal **pain** which follows the bleeding.

Incomplete abortions con…

2.Examinations

- Poor general condition.
- The cervix is dilating and products of conception may be passing trough the os
- The uterus may be small for date.

3.U/S

- Retained products of conception in.

management

1.CBC , blood grouping

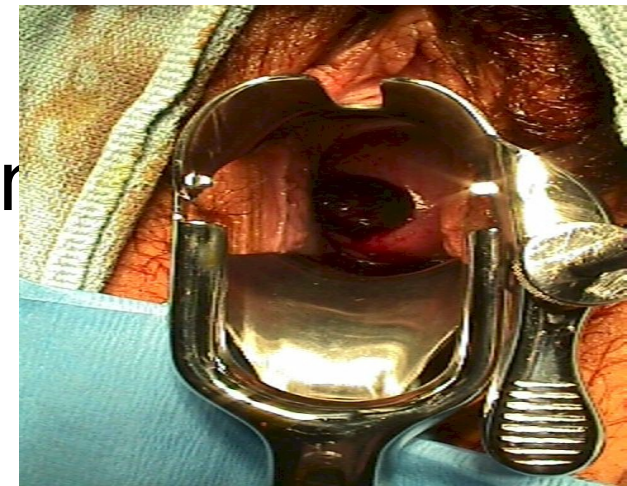
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Ergometrine 0.5 mg IM + Oxytocin infusion (20-40 units in 500 cc saline)

4. Evacuation & curettage.

5.Post-abortion managemer



Missed abortion

- When a dead fetus remains in the uterus without being expelled at least for another month.
- It ussually happens b/c something goes wrong in early px (wrong no of chromoso)

1. Most of missed abortions are diagnosed accidentally during routine U/S in early pregnancy .

Missed abortion

In some cases there may be a history of :

- Episodes of mild vaginal bleeding
- Regression of early symptoms of pregnancy .
- Stop of fetal movements after 20 weeks gestation.

2. Examination

- The uterus may be small for date

Missed abortion

- **U/S (**which is essential for diagnosis) diagnosed if <u>two ultrasound</u> at least <u>7days apart</u> showed an embryo of > 7 weeks gestation.

Management

1.CBC , blood grouping

2.Platelets count, – to exclude the risk of DIC

NB : DIC does not occur before 5 weeks of missed abortion or IUFD and if occurred will be of mild grade

3. Options of treatment

- Conservative treatment: → if left alone spontaneous expulsion will occur

Management con..

- Surgical evacuation of the uterus; by D & C: Indicated in 1st trimester missed abortion.
- Medical termination of pregnancy: by Misoprostol (PGE1)

Anembryonic pregnancy
(Blighted ovum)

- It is due to an early death and resorption of the embryo with the persistence of the placental tissue
- It is diagnosed if two ultrasound (T/V or T/A) at least 7 days apart showed after 7 weeks of gestation i.e. gestational sac > 20mm , an empty gestational sac with no fetal echoes seen .
- It is treated in a similar way to missed abortion.

Septic abortion

Definition :

- It is an incomplete abortion which complicated by infection of the uterine contents .

Features : Poor general condition_

- Include the features of incomplete abortion ie severe vaginal bleeding with passage of product of conception, with or without history of evacuation.

Septic abortion con…

- Features of pelvic infection i.e pyrexia , tachycardia , general malaise , lower abdominal pain , pelvic tenderness & purulent vaginal discharge .

causes

Bacteriology : Mixed infection

- The commonest organisms are :
  1. Gram -ve : E.coli , strepto & staphylococcus
  2. Anaerobics : Bacteroides
- Rarely Cl. tetani , which is potentially lethal if not treated adequately .

Management

1. Investigations :
   - CBC , blood grouping
   - Cervical swabs (not vaginal) for culture and senstivity
2. Antibiotics : Cephalosporin I.V + Metronidazole I.V
3. Surgical evacuation of uterus → usually 12 hrs after antibiotic therapy (until a reasonable tissue levels of antibiotics have been achieved)
4. Post-abortion management.

Recurrent abortion

Definition :

- Is defined as **3 or more consecutive spontaneous** abortions
- It may presented clinically as any of other types of abortions .

Recurrent abortion con…

Incidence

- occurs in about **1%** of women of reproductive age .

Causes

- Idiopathic recurrent abortion, in about 50%, in which no cause can be found .
- The known causes include the followings :

1. Chromosomal disorders:
   - Fetal chromosomal abnormalities & structural abnormalities

Recurrent abortion con…

2. Anatomical disorders:

- Cervical incompetence: →congenital and aquired
- Uterine causes: → submucous fibroids, uterine anomalies & Asher man's syndrome

3. Medical disorders:

- Endocrine disorders : diabetes , thyroid disorders & corpus luteum insufficiency .

Recurrent abortion con…

- Immunological disorders : Anticardiolipin syndrome.
- Thrombophilia: congenital deficiency of Protein g and antithrombin III.
- Infections
  - ToRCH - CMV may be a cause of recurrent abortion, but ToRCH are not causes of recurrent abortion.
  - Genital tract infection e.g Bacterial vaginosis
- Rh – isoimmunization

Diagnosis_

1. History :
   - Previous abortions : gestational age and place of abortions & fetal abnormalities.
   - Medical history : DM , thyroid disorders, autoimmune diseases & thrombophilia.
2. Examination :

- General : weight , thyroid & hair distribution
- Pelvic: cervix (length & dilatation) and uterine size.

Diagnosis con…

3.investigations :

A.Investigations for medical disorders:

- Blood grouping & indirect Coomb's test in Rh –ve women
- Endocrinal screening: Blood sugar & LH /FSH ratio
- Immunological screening

Diagnosis con…

- Thrombophilia screening: Protein antithrombin III levels, factor V leiden, and PT.
- Infection screening
  - High vaginal & cervical swabs

B. Investigations for anatomical disorders:

- TV/US: fibroids & cervical incompetence .

Diagnosis con…

- Hystroscopy or HSG, fibroids, cervical incompetence, uterine anomalies & Asherman's syndrome

C.Investigations for chromosomal disorders:

- Parental karyotyping: Parental balanced translocation.
- Fetal karyotyping: Fetal chromosomal anomalies.

Management_

1.In idiopathic recurrent abortion.

With support and good antenatal care , the chance of successful spontaneous pregnancy is about 60-70%

- Support : from husband, family & obstetric staff.
- Advice : stop smoking & alcohol intake, decrease physical activity

Management con…

- Tender loving care
- Drug therapy
  - Progesterone & hCG: start from the luteal phase & up to 12 weeks.

Management con..._

2.In the presence of a cause treatment is directed to control the cause

- Endocrine disorders
  - Control DM and thyroid disorders before pregnancy
  - Ovulation induction drugs , ovarian drilling in PCOS.
  - Progesterone or hCG in corpus luteum insufficiency .

Management con..._

- In thrombophilia:
  - Low dose aspirin (75 mg/day) starting when pregnancy is diagnosed.
- In Rh isoimmunization: Repeated intrauterine transfusion

Management con…

- In uterine disorders
  - Cervical cerclage in cervical incompetence, best time at the 14 weeks of pregnancy.
  - Myomectomy in submucus fibroid, excision of uterine septum adhesolysis in Asherman's syndrome.
  - In infection: treatment of the genital tract infection.

Induced Abortion

A. Therapeutic abortion

- Legal termination of pregnancy is a therapeutic procedure carried out under the acts of abortion.

Methods of therapeutic abortion

- Before the 12th week of pregnancy vacuum aspiration is the chosen method of termination of pregnancy as there is less blood loss.
- Alternatively dilatation and curettage may be performed.

Therapeutic abortion

- After the 12th week a prostaglandin preparation will be used to produce abortion with in 48 hours.
- All terminations performed after 8 weeks gestation should be carried out in hospital where resuscitation facilities are available.
- In all instances ergometrine or syntometrine will be administered to prevent hemorrhage.

B. Criminal abortion

- A criminal abortion is one performed in contravention of legal abortion. Such procedures are illegal and are punishable by imprisonment.
- The abortion is attempted by an unqualified, in expert person. Injuries to the birth canal and pelvic organs can occur if implements are inserted.

B. Criminal abortion con…

- It is usually the subsequent bleeding which causes a mother to seek professional help and
- care should be given as for threatened abortion until medical assistance arrives.

Complications of abortion

1. Haemorrhage .
2. Complication related to surgical evacuation

   i.e E&C and D&C

   - Uterine perforation- which may lead to rupture uterus in the subsequent pregnancy.
   - Cervical tear & excessive cervical dilatation – which may lead to cervical incompetence.
   - Infection – which may lead to infertility & Asherman's syndrome.

Complications of abortion

- Excessive curettage **–** which may lead to Adenomyosis

3.Psychological trauma .

Post - abortion management

In cases of incomplete, inevitable, complete, missed & septic abortions

1. Support: from the husband, family& obstetric staff
2. Anti D – to all Rh –ve, patients, whose husbands are Rh+ve

Post - abortion management

3.Counseling & explanation:

A. Contraception

(Hormonal, IUCD, Barrier) Should start immediately after abortion if the patient choose to wait , because ovulation can occur 14 days after abortion and so pregnancy can occur before the expected next period .

Post - abortion management

B.When can try again :

- Best to wait for 3 months before trying again

. This time allow to regulate cycles and to know the LMP, to give folic acid, and to allow the patient to be in the best shape (physically and emotionally) for the next pregnancy

C.Why has it happened

- In the first trimester abortion , the most common cause is fetal chromosomal abnormality

Post - abortion management

D. Can it happen again

- As the commonest cause is the fetal chromosomal abnormality which is not a recurrent cause , so the chance of successful pregnancy next time in the absence of obvious cause is very high even after 2 or 3 abortions

E. Not to feel guilty → as it is extremely unlikely that anything the patient did can cause abortion

- No evidence that intercourse in early pregnancy is harmful
- No evidence that bed rest will prevent it ..

ECTOPIC PREGNANCY

DEFINITION

Any pregnancy where the fertilised ovum gets implanted & develops in a site other than normal uterine cavity.



INCIDENCE >1 in 100 pregnancies

- Recent evidence indicates that the incidence of ectopic pregnancy has been rising in many countries.
  - USA-5 fold
  - UK-2 fold
  - France 15/1000 pregnancies
  - India-1in100 deliveries
- Recurrence rate - 15% after 1st, 25% after 2 ectopics

ETIOLOGY

- Any factor that causes delayed transport of the fertilised ovum through the Fallopian tube favours implantation in the tubal mucosa itself thus giving rise to a tubal ectopic pregnancy.
- These factors may be Congenital or Acquired.
- CONGENITAL - Tubal Hypoplasia ,, Congenital diverticuli , Partial stenosis

ETIOLOGY

- ACQUIRED -
  - Inflammatory: PID, Septic Abortion, Puerperal Sepsis, Intraluminal adhesion.
  - Surgical: Tubal reconstructive surgery, Recanalisation of tubes
  - Neoplastic: Broad ligament myoma, Ovarian tumour
  - Miscellaneous Causes: IUCD , Endometriosis, Previous ectopic

Risk factors

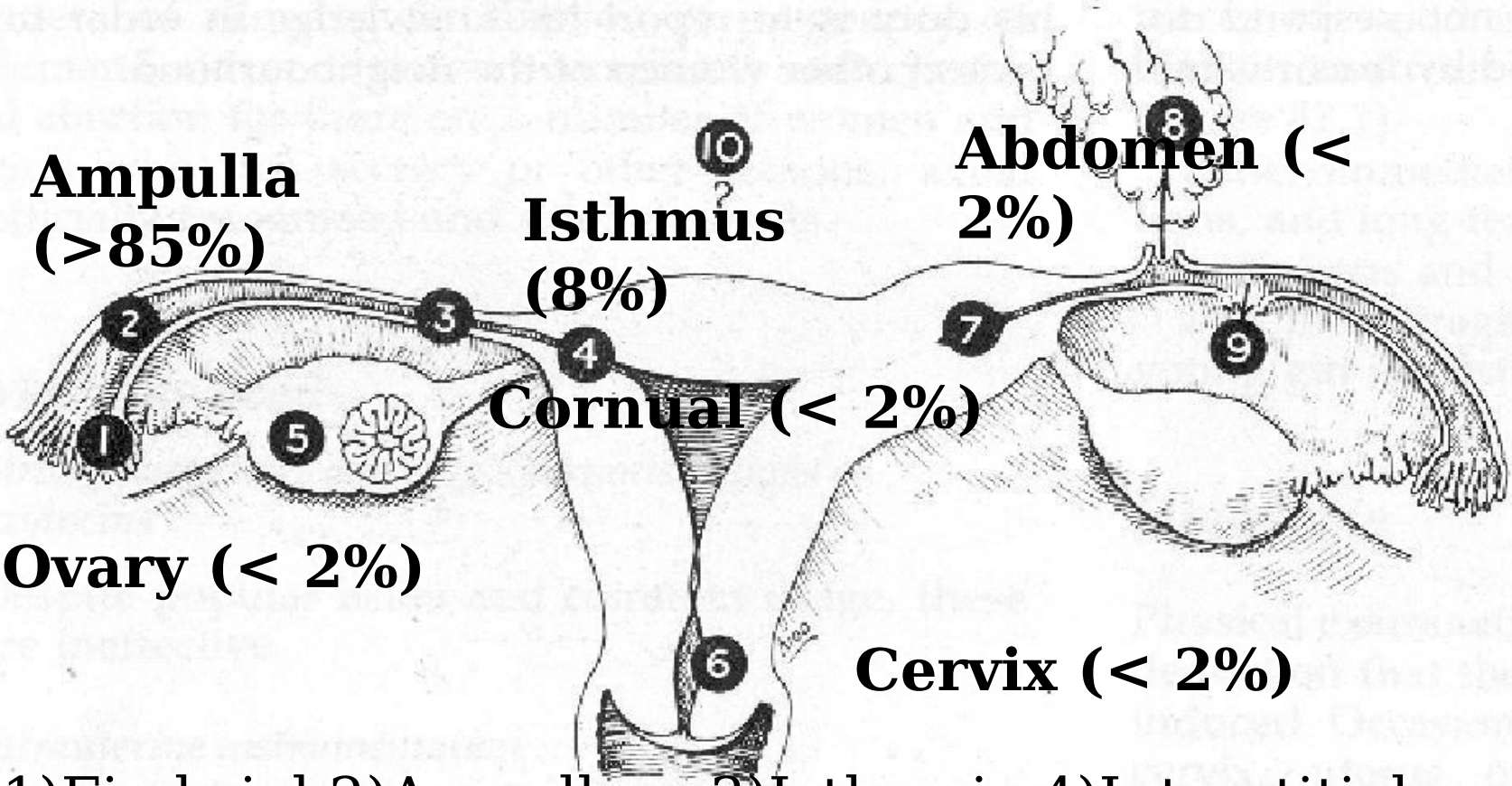
TABLE 10–1 Risk Factors for Ectopic Pregnancy

Risk Factor	Risk[a]
High Risk	
Tubal corrective surgery	21.0
Tubal sterilization	9.3
Previous ectopic pregnancy	8.3
In utero DES exposure	5.6
Intrauterine device	4.2–45
Documented tubal pathology	3.8–21
Moderate Risk	
Infertility	2.5–21
Previous genital infection	2.5–3.7
Multiple partners	2.1
Slight Risk	
Previous pelvic or abdominal surgery	0.93–3.8
Smoking	2.3–2.5
Douching	1.1–3.1
Intercourse before 18 years	1.6

DES = diethylstilbestrol.

[a] Single values are common odds ratio from homogeneous studies; double values are range of values from heterogeneous studies. Modified from Pisarska and Carson, 1999, with permission.

SITES OF ECTOPIC PREGNANCY



1)Fimbrial 2)Ampullary 3)Isthemic 4)Interstitial 5)Ovarian 6)Cervical 7)Cornual-Rudimentary horn 8)Secondary abdominal 9)Broad ligament 10)Primary abdominal

Pathophysiology

- In theory, any mechanical or functional factors that prevent or interfere with the passage of the fertilized egg to the uterine cavity may be etiological factors for an ectopic pregnancy.

- 50% operated for ectopic pregnancy have evidence of chronic pelvic inflammatory disease.

Pathophysiology

- Persisting for a considerable period of time within the tube as one form of chronic ectopic pregnancy or they may be gradually absorbed.
- Implantation occurs into a site of the tube that offers a sufficient area for placentation.
- The process is very similar to that of an intrauterine pregnancy.

Pathophysiology

- For the conceptus penetrates the tubal mucosa and becomes embedded in the tissues of the wall.
- The extravillous trophoblast will penetrate the full thickness of the muscular layer of the tube to reach the subserosa and the tubo-ovarian circulation.

Pathophysiology

- Due to its limited distensibility, the tube will rupture
- Although this event is usually accompanied by fetal death.
- Occasionally following rupture the fetus retains sufficient attachment to its blood supply to maintain viability and secondary abdominal pregnancy can proceed to term.

Pathophysiology

- In an ectopic pregnancy, the uterine endometrium usually responds to the hormonal changes of pregnancy and undergoes focal decidua changes (Arias-Stella reaction).
- If the ectopic pregnancy miscarries, the uterine decidua may slough off as a cast, but more commonly as fragments mixed with small blood clots.

CLINICAL FEATURES OF ECTOPICPREGNANCY

- Depend on whether rupture has occurred
- usually, not suspect Ectopic pregnancy thinks that she has a normal pregnancy
- in contemporary practice, symptoms and signs of the ectopic pregnancy are often subtle or even absent.

CLINICAL FEATURES OF ECTOPIC PREGNANCY

- Symptoms and signs

  - pain : most frequently

    abdominal and pelvic pain (95%)

    G-I symptom (80%)

    dizziness or headache (58%)

  - abnormal menstruation

    : amenorrhea (most common)

    bleeding (true menstruation vs. abnormal)

    if profused, incomplete abortion > ectopic pregnancy.

CLINICAL FEATURES OF ECTOPIC PREGNANCY

- abdominal and pelvic tenderness
- uterine change
  - ✓ be pushed to one side due to ectopic mass
  - ✓ enlarged uterus (hormonal stimulation)
  - ✓ endometrium is converted to decidua (the decidua without trophoblast suggests ectopic pregnancy but not absolutely)
- bloodpressure and pulse
  - ✓ early – no change or slightly BP↓ , pulse↓
  - ✓ late – hypovolemic shock (BP↓, pulse ↑)

C/f of Acute ectopic pregnancy

- The patient with acute intraperitoneal haemorrhage presents with pallor and two other signs of internal haemorrhage, viz. restlessness and air hunger.
- The patient is cold, the skin is clammy, the temperature subnormal, and the pulse thready with marked tachycardia.
- Blood pressure will be low
- An extreme tenderness can be elicited in the lower abdomen

C/f of Acute ectopic .....

- Cervical motion tenderness

Differential diagnosis

Diagnosis

- Hormonal tests A negative pregnancy test is of no value in ruling out an ectopic pregnancy
- . If the test is positive and the uterus is empty as seen on ultrasound, it is suggestive of ectopic pregnancy.

.

- A slow rise in serum hCG level is also of diagnostic value in a suspected case of ectopic pregnancy

- β-hCG is detected in the serum 9 days and the urine 13 days after ovulation, around the time of implantation and before the missed period.

- β-hCG level doubles every 2 days in a normal pregnancy. Therefore, in case of doubt and if the condition of the woman remains stable, serial study and doubling time study are useful

DIAGNOSIS con...

- Ultrasound imaging

  - abdominal sonography

    : using abdominal ultrasound until 5 to 6 menstrual weeks

  - vaginal sonography 14 days after detection of hcg

    : earlier and more specific

    : as early as a week after missed menses


NATIONAL WOMENS HOSPITAL
C8-4v OB/General
12:11:15
TIb 0.4 MI 0.6
Fr #98 4.7 cm
Map 6
DynRg 50dB
Persist Med
Fr Rate Med
2D Opt:Res
Ectopic pregnancy with free fluid

DIAGNOSIS con...

- Multi-modality diagnosis
  1. Vaginal sonography
  2. Serum β-hCG: intial level and subsequent level
  3. Serum progesterone

DIAGNOSIS con...

4. Uterine curettage

5. Laparoscopy and, less frequently, laparatomy

→ only hemodynamically stable women, with rupture should undergo prompt surgery

- discriminatory β-hCG level

  - failure to visualize a uterine pregnancy by transvaginal ultrasound

  - empty uterus

DIAGNOSIS con...

→100% excluding a live uterine pregnancy

- mean doubling time for β-hCG : 48 hours

- if the β-hCG level rises inappropriately, plateaus, or exceeds the discriminatory level without evidence of a uterine pregnancy, a live uterine pregnancy can be excluded

- biopsy < curettage (sensitivity)

DIAGNOSIS con...

TABLE 10–2 Lower Normal Limits for Percentage Increase of Serum β-hCG during Early Uterine Pregnancy

Sampling Interval (days)	Increase from Initial Value (%)
1	29
2	66
3	114
4	175
5	255

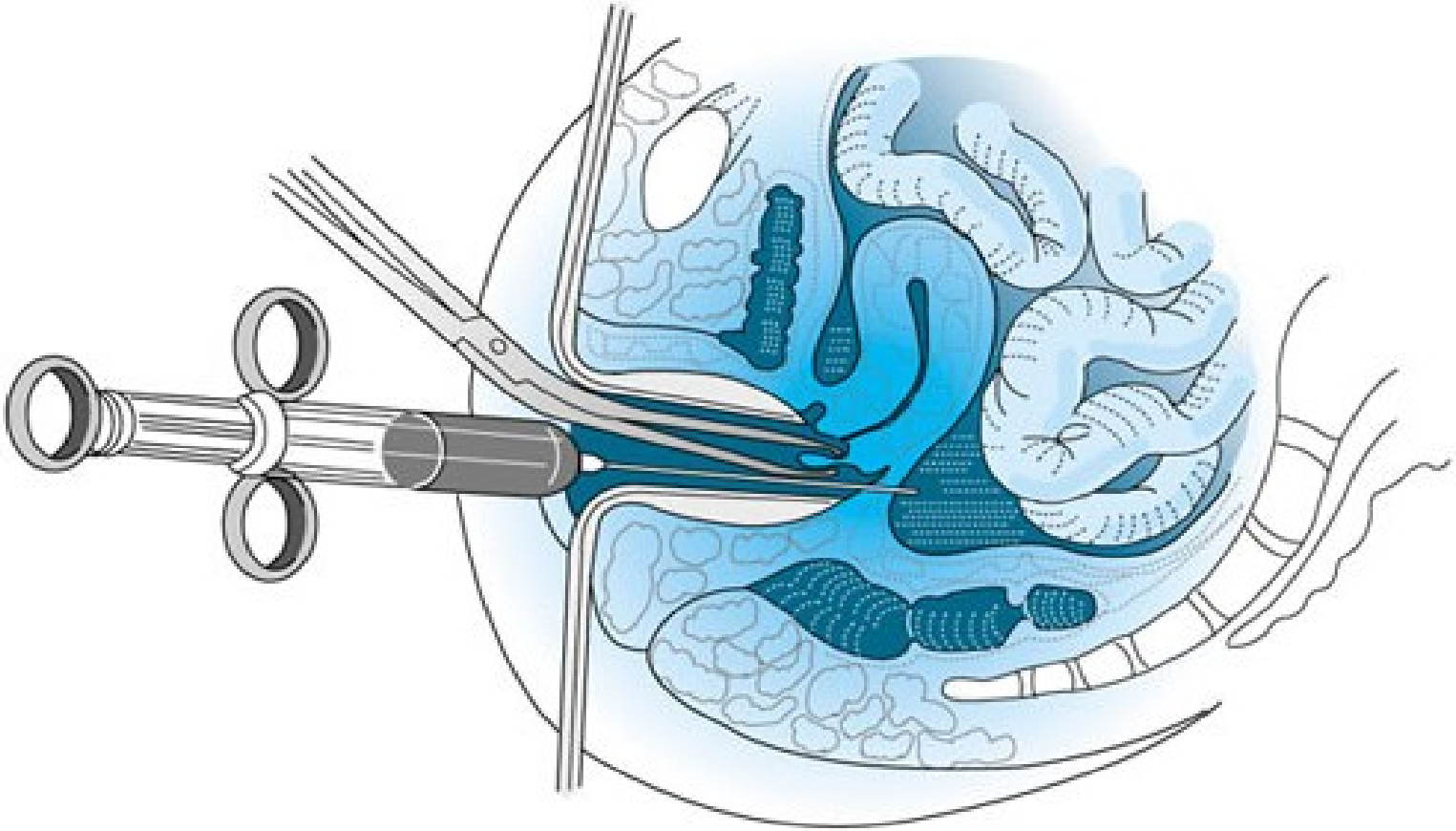
Modified from Kadar and co-workers (1981) with permission.

DIAGNOSIS con...

- serum progesterone
  - its accuracy is crude
  - if < 5 ng/mL or > 25 ng/mL,
    neither absolutely refute nor confirm a living uterine pregnancy.
- Surgical diagnosis
  - laparoscopy
    :direct visualization of the fallopian tube, pelvis
  - laparotomy
    :hemodynamically unstable

Culdocentesis:

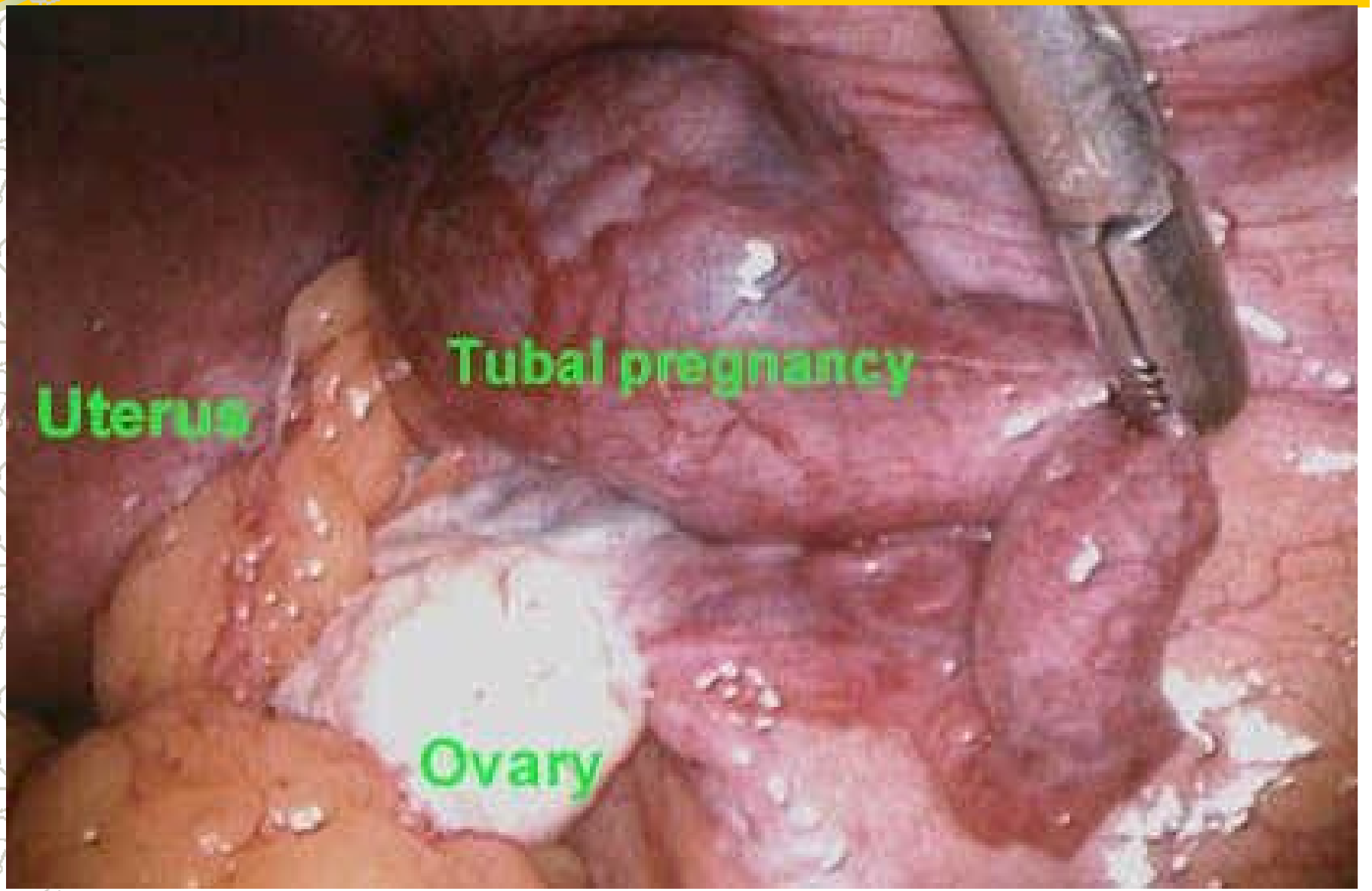
- Most Helpful in Emergent Situations to Confirm Diagnosis
- Highly Specific if performed and Interpreted Correctly: - Presence of Free-Flowing, NON-Clotting Blood
- Remains Controversial



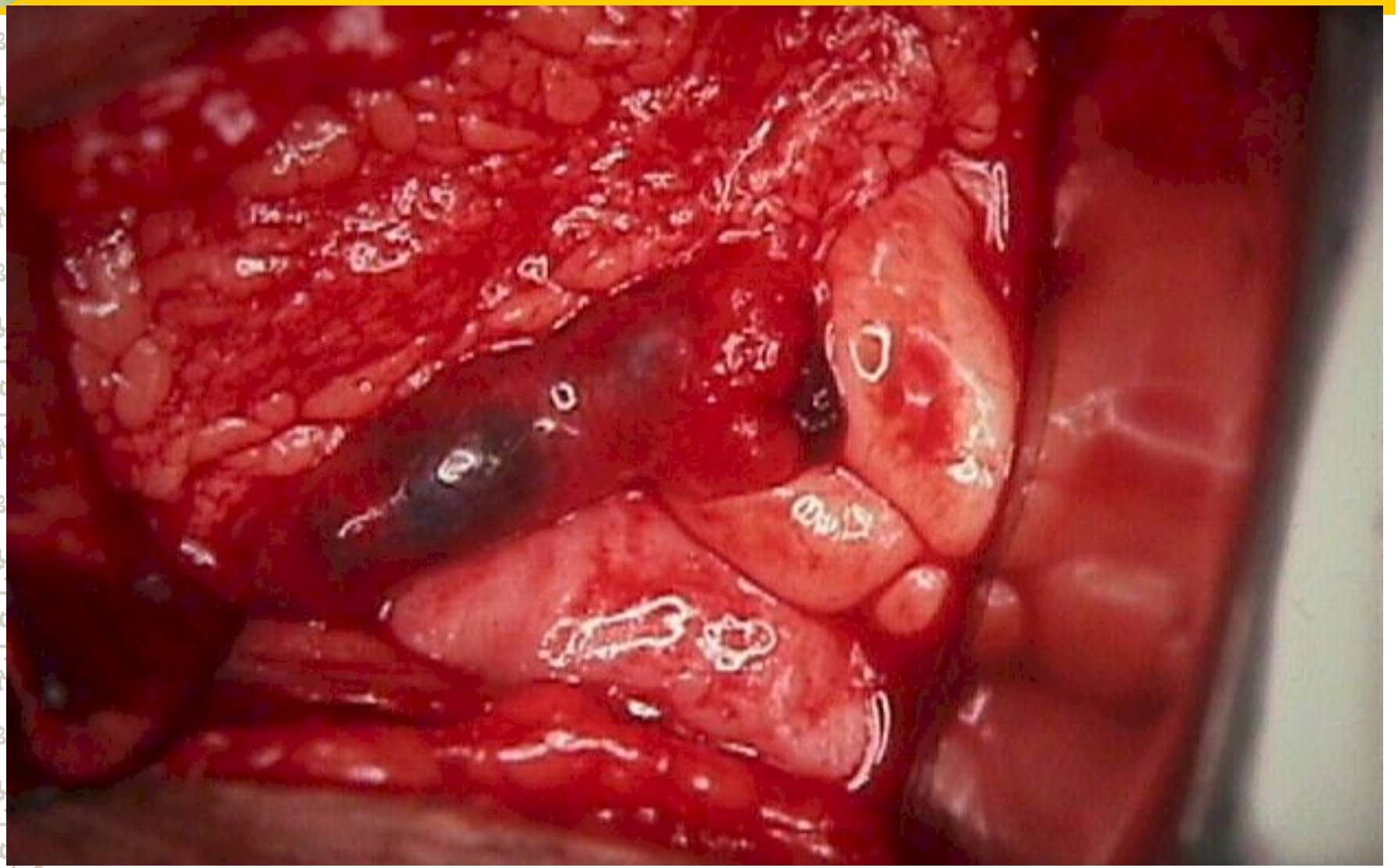
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Culdocentesis.

Unruptured Ectopic



Ruptured Ectopic



Differential diagnosis

- Threatened miscarriage
- Corpus luteum cyst
  - Amenorrhea
  - unilateral pain
  - spotting
  - Preg. Symptoms None,
  - Negative HCG
  - If ruptured – Same treatment
- Pelvic inflammatory disease:
  - Bilateral
  - No amenorrhea or symptoms
  - May have signs of infection (50%)
- Acute appendicitis
  - No symptoms or signs of pregnancy

TREATMENT AND PROGNOSIS

- Importantly, early diagnosis→early medical treatment (more cost-effective than surgical therapy)
- Depends on the stage of the disease and the condition of the patient at diagnosis.

- Options-
  - Surgery – Laparoscopy / Laparotomy
  - Medical – Administration of drugs at the site / systemically
  - Expectant – Observation

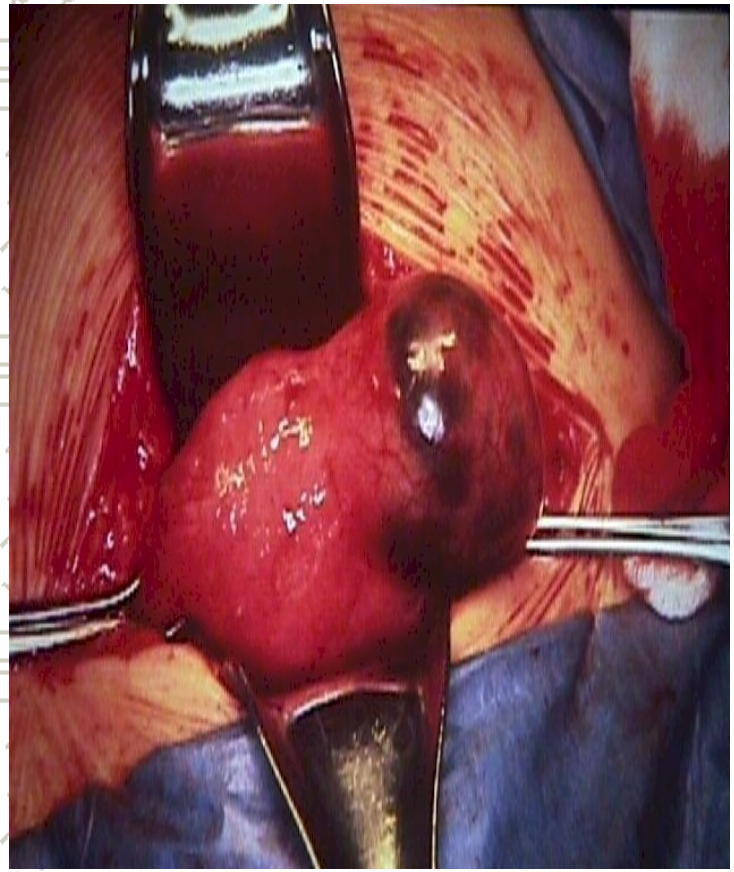
MANAGEMENT OF ACUTE ECTOPIC PREGNANCY

- Hospitalisation
- Resuscitation -
  - Treatment of shock
  - Lie flat with the leg end raised
  - Analgesics
  - Blood transfusion

MANAGEMENT OF ACUTE ECTOPIC PREGNANCY

- Laparotomy should be done at the earliest.
- Salpingectomy is the definitive therapy .
- TREATMENT – ALWAYS SURGICAL
- Salpingectomy of the offending tube

MANAGEMENT OF UNRUPTURED ECTOPIC PREGNANCY



OPTIONS: -

- SURGICAL-
- SURGICALLY ADMINISTERED MEDICAL (SAM) TREATMENT
- MEDICAL TREATMENT
- EXPECTANT MANAGEMENT

SURGICAL TREATMENT OF ECTOPIC PREGNANCY

- Carried out either by Laparoscopy / Laparotomy.
- The procedures are: -
  - Salpingectomy
  - Partial salpingectomy
  - Milking of the tube

SAM TREATMENT

- Trophotoxic substances used-
  - Methotrexate
  - Potassium Chloride
  - Mifiprostone (RU 486)
  - PGF2α (Limblom, 1987)
  - Hyper osmolar glucose solution
  - Actinomycin D

MEDICAL TREATMENT WITH METHOTREXATE con....

- Mechanism of action- Interferes with the DNA synthesis by inhibiting the synthesis of pyrimidines leading to trophoblastic cell death. Auto enzymes and maternal tissues then absorb the trophoblast.
- Ectopic pregnancy size should be < 3.5 cm.
- Can be given IV/IM/Oral, usually along with Folinic acid

MEDICAL TREATMENT WITH METHOTREXATE con.

- Recent concept is to give Methotrexate IM in a single dose of 50mg/m2 without Folinic acid. If serum HCG does not fall to 15% with in 4-7 days, then a second dose of Methtrexate is given and resolution confirmed by HCG estimation

MEDICAL TREATMENT WITH METHOTREXATE con.

- Advantages –
  - Minimal Hospitalization. Usually outdoor treatment
  - Quick recovery
  - 90% success if cases are properly selected
- Disadvantages-
  - Side effects like GI & Skin
  - Monitoring is essential- Total blood count & serum HCG once weekly till it becomes negative

EXPECTANT TREATMENT

- Tubal Pregnancies are known to Abort / Resolve
- Befor the advent of salpingectomy in 1884, ectopic pregnancies were being treated expectantly with 70% mortality.
- Today only selected cases are managed expectantly, screened and identified by high resolution ultrasound scanner and monitored by serial serum HCG assay

EXPECTANT TREATMENT con…

- Identification criteria
  - Diameter of ectopic pregnancy <4 Cm.
  - No sign of intrauterine pregnancy
  - No sign of rupture by TVS
  - No sign of acute bleeding by TVS
  - Falling level of serum HCG at 2 day intervals
- If any deviation from the above criteria occurs, then emergency treatment is necessary.

EXPECTANT TREATMENT con….

- Spontaneous resolution occurs in 72%,while 28% will need laparoscopic salpingostomy
- In spontaneous resolution, it may take 4-67 days (mean 20 days) for the serum HCG to return to non pregnant level.
- The percentage fall in serum HCG by day 7 is a better indicator than the percentage fall by day 2.
- Warning: - Tubal pregnancies have been known to rupture even when Serum HCG levels are low.

SUMMARY

- What are the cause of early bleeding ?
- Define Abortion ?
- Which type of abortion is most common cause of maternal mortality in Ethiopia ?
- Define ectopic pregnancy?
- State the site of ectopic pregnancy ?


Thank
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