‘Gynaecology Emergencies’

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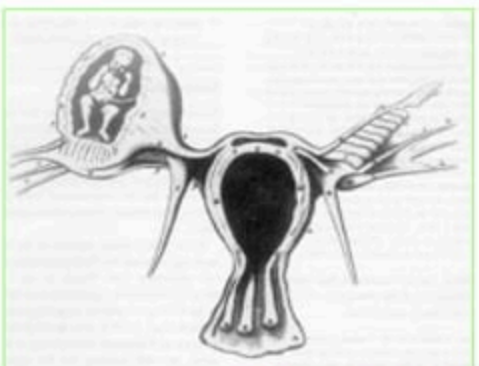
‘Gynaecology Emergencies’

- Ectopic pregnancy
- Miscarriage
- Hyperemesis gravidarum
- Cervical incompetence

- Severe pelvic pain
- Massive ‘menstrual’ blood loss
- ‘Emergency’ contraception

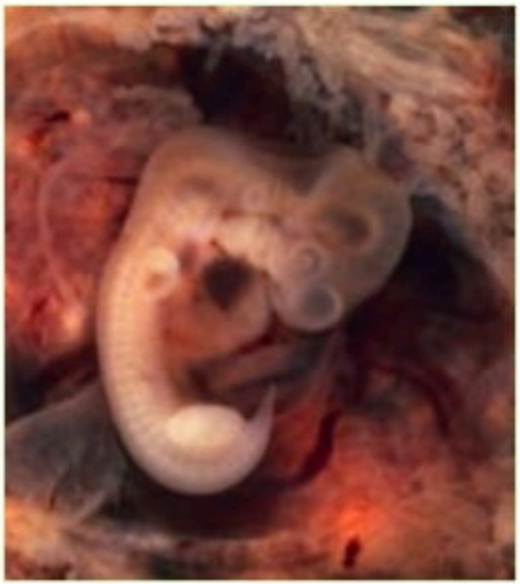
‘Ectopic Pregnancy’

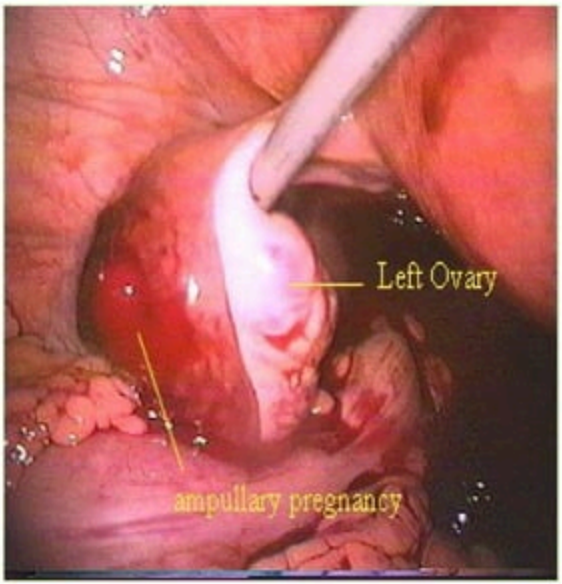


Ectopic Pregnancy

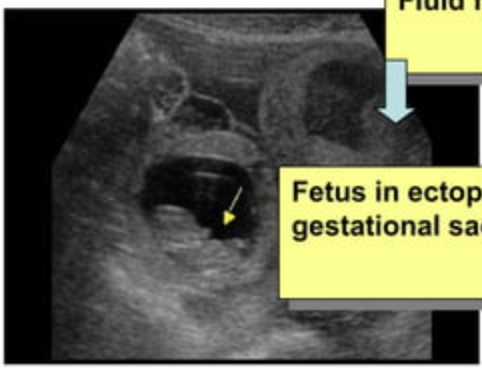
- Rising incidence ~ 1% of all pregnancies
- 95% located in fallopian tubes
- Delay in diagnosis can be catastrophic
- 'Always rule out ectopic pregnancy'
- Counseling on future pregnancies
  - ✓ Recurrence rate -12% to 20%
  - ✓ Early confirmation of future pregnancy
  - ✓ Early USS to confirm site of pregnancy

Ectopic Pregnancy



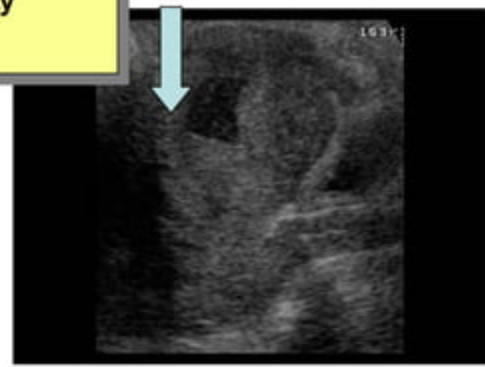


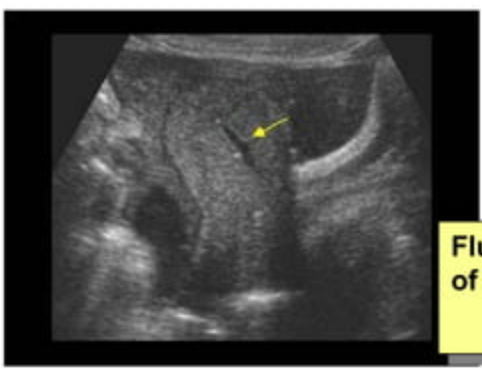
Ectopic pregnancy



Fluid filled uterine cavity

Fetus in ectopic gestational sac





Fluid filled uterine cavity & haematoma in pouch of Douglas

Ectopic Pregnancy: presentation & diagnosis

- Presentations - acute or chronic
- Usually symptomatic at 5 - 8 wks POA
- Pain ++ & ‘minimal’ per-vaginal bleeding
- Shoulder tip pain & ‘fainting spells’
- UPT – mandatory
- Serum b-HCG
- Ultrasonography – preferably TVS
- Diagnostic laparoscopy/ mini-laparotomy

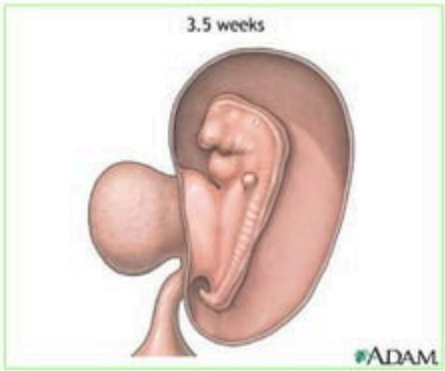
Ectopic Pregnancy: Management

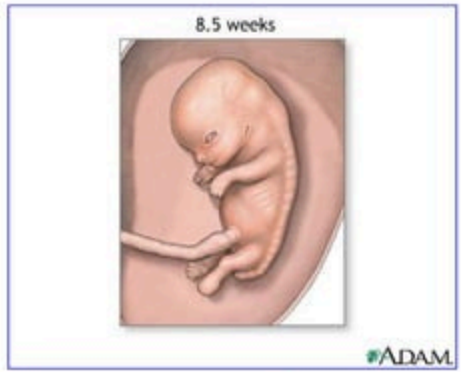
- Ruptured - resuscitate & emergency laparotomy
- Role for conservative management:
  - ✓ If serum b-HCG suggests 'non viable' ectopic
  - ✓ If 'unruptured' and asymptomatic
  - ✓ If patient staying nearby & able to comply with follow-up
- Role for medical management:
  - ✓ If gestational sac <3cm in diameter & no fetal heart activity
  - ✓ No POD fluid & patient is stable
  - ✓ If b-HCG > 3000IU - not likely to work
  - ✓ Staying nearby and able to come for follow-up
  - ✓ IM Methotrexate 50mg/m^2/kg -1st dose
  - ✓ b-HCG on D4 & D7- expect a minimum15% decrease

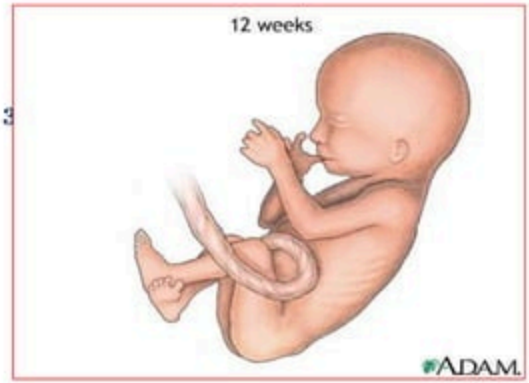
Ectopic Pregnancy: Management

- Surgical intervention ~ laparoscopy / laparotomy
- Laparoscopy – preferred choice
- Salpingostomy or salpingectomy?
- Check contralateral tube
- Completed family?
- Detailed operative & discharge notes
- Counsel patient

‘Miscarriage’



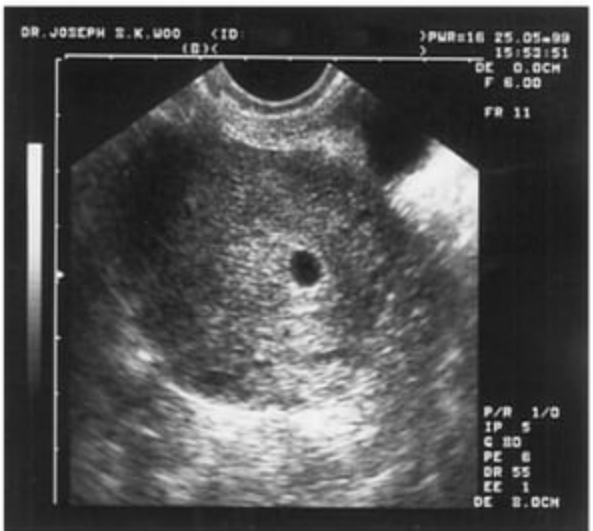




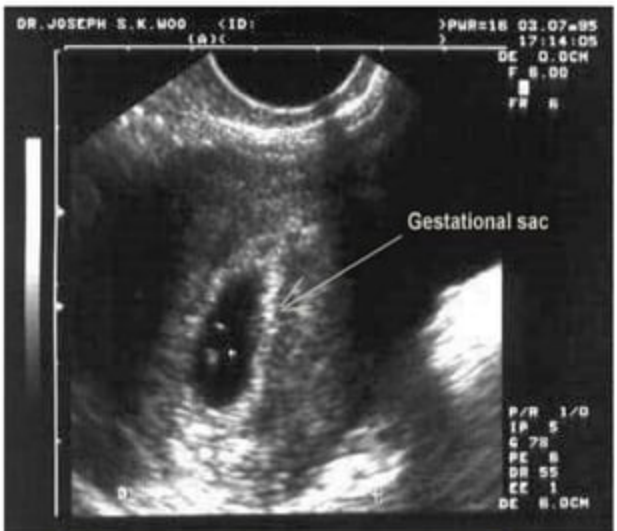
Miscarriage:

- Defined as the expulsion of product of conceptus or fetus less than 500gm or 22 weeks gestation with no evidence of life at delivery
- Habitual abortion is defined as someone who has had 3 consecutive miscarriages
- Very early miscarriages can sometime be assumed as delayed period

Early pregnancy

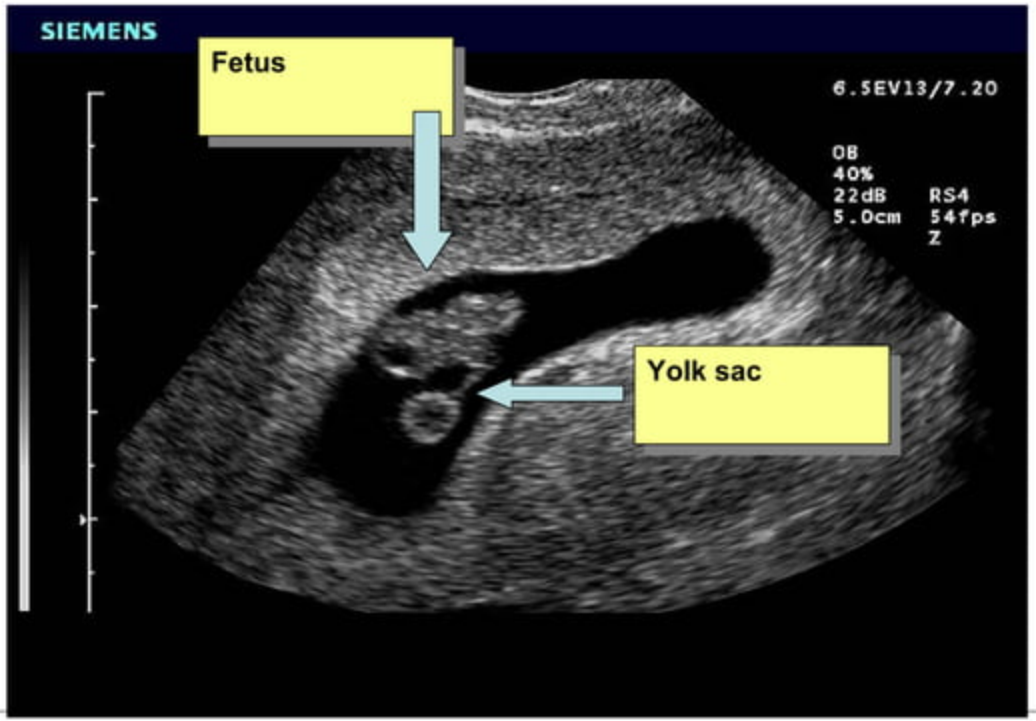


Gestational sac at 5 weeks (TVS)



7 weeks (cord & yolk sac) (TVS)

1st trimester fetus with yolk sac



Miscarriage: Types

- Threatened abortion
- Inevitable abortion
- Incomplete abortion
- Complete abortion
- Missed abortion
- Septic abortion
- Termination of pregnancy (TOP)
- Habitual abortion

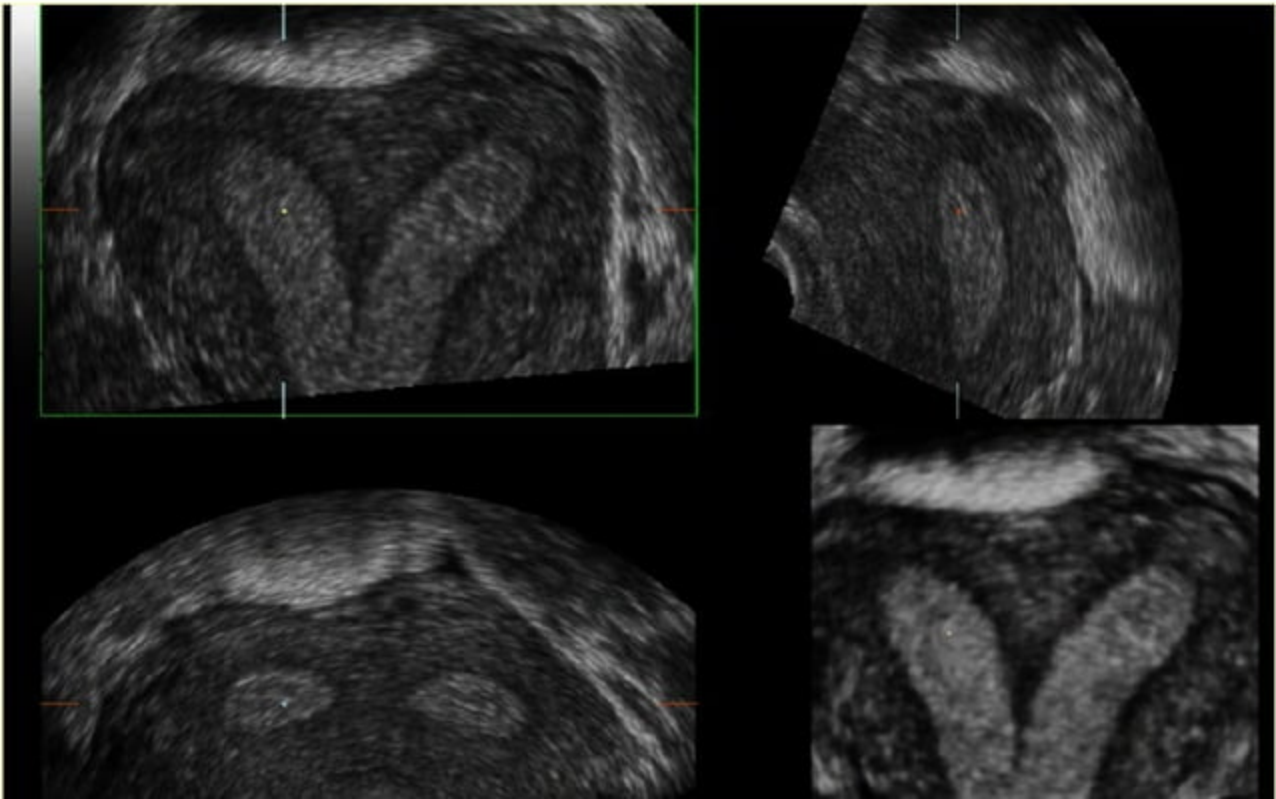
Miscarriages:

- Common problem
- Miscarriage above 15 POA uncommon
- Very early miscarriages may be mistaken as delayed period
- Not all miscarriages require ERPOC
- 60% due to chromosomal abnormalities other causes includes……

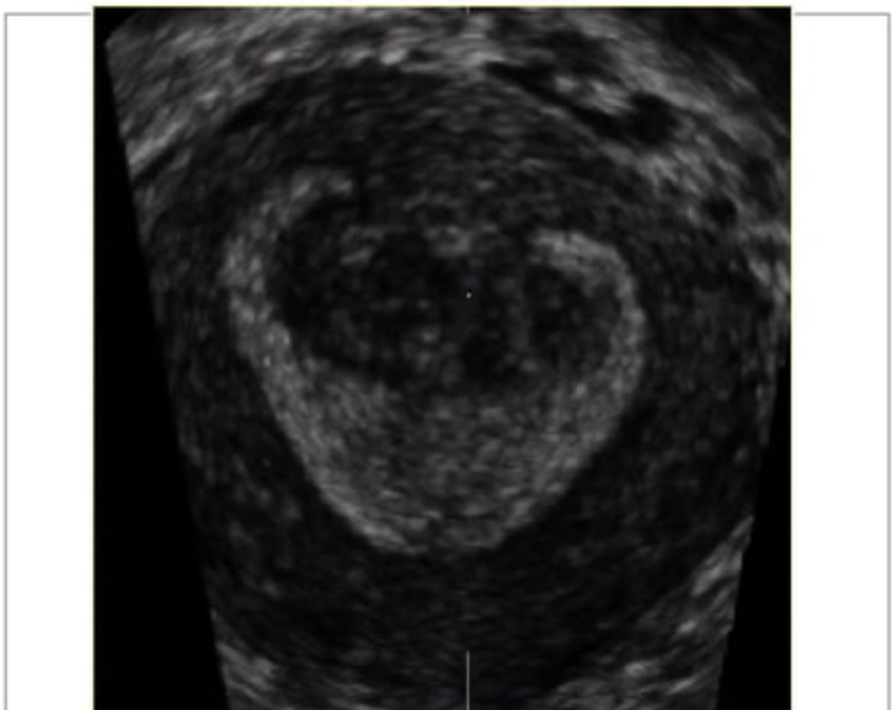
Causes of Miscarriages

- Uterine structural abnormalities
- Maternal illnesses
- Congenital infection
- Autoimmune diseases (APA)
- Chemotherapy/radiation
- Therapeutic TOP
- Induced TOP by doctor or patient

Bicornuate uterus



Submucosal fibroid



Threatened V Inevitable

- Per vaginal spotting or minimal bleeding
- Either no pain or only mild
- Uterus equals to date
- Cervix tubular and closed
- Scan shows viable fetus

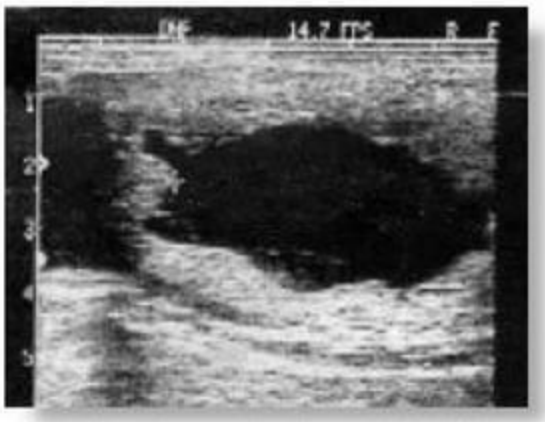
- Slight to heavy per vaginal bleeding
- Moderate to severe lower abdominal pain
- Uterus equals to date
- Cervix shortened and Os may be opened
- Fetus may or may not be viable on scan

Incomplete V Complete

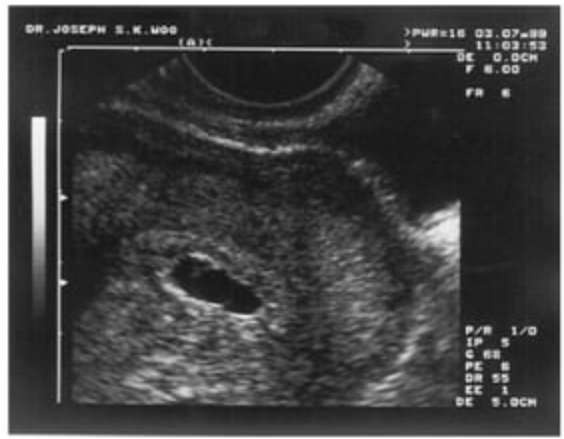
- Moderate or severe pain
- Moderate to heavy per vaginal loss
- Uterus less than date
- Os open and POC may be felt
- Patient in distress!

- Had severe pain earlier but now mild or no pain
- Heavy PV loss earlier but now minimal loss
- Os usually still open
- Patient is not distressed
- Scan may be helpful

Blighted ovum



Blighted ovum/ missed abortion



Missed Abortion

- Patient gives history of absence of symptoms of early pregnancy
- PV spotting or brownish discharge with slight abdominal discomfort
- Uterus less than dates
- Os closed
- Scan to confirm diagnosis
- Need to ‘ripen’ cervix before ERPOC

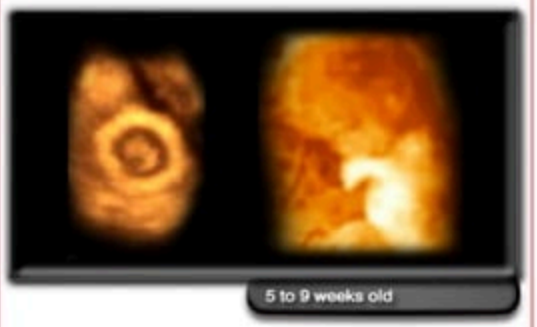
Septic Abortion

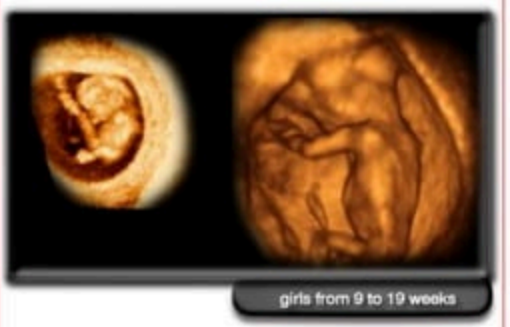
- Any types of miscarriage complicated with infection esp. criminal abortion
- Foul smelling PV discharge/bleeding with fever and lower abdominal pain/tenderness
- Cover with appropriate IV antibiotics for at least 6 hours before ERPOC
- Continue antibiotics for a total of 14 days

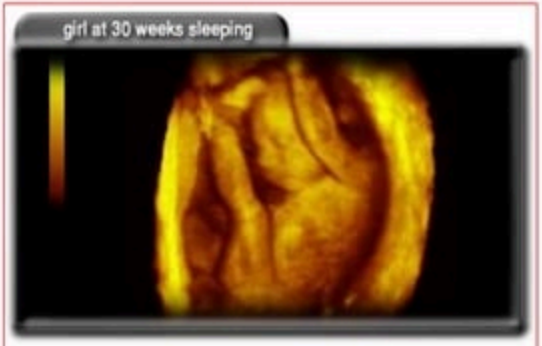
Termination of Pregnancy:

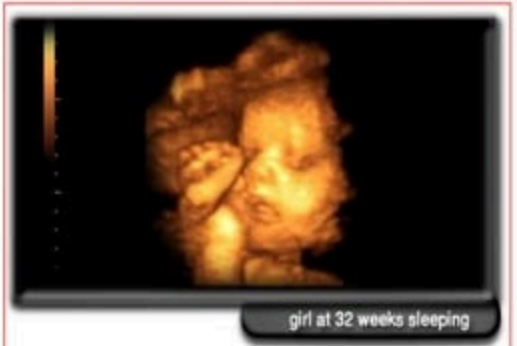
- Therapeutic TOP (maternal medical reasons or fetal conditions that is not compatible with life)
- ‘Personal wish’ or criminal abortion
- Medical TOP or Surgical TOP or combination
- Limited adverse impact for future pregnancy unless complicated with sepsis

4D USS: Fetus


5 to 9 weeks old


girls from 9 to 19 weeks


girl at 30 weeks sleeping


girl at 32 weeks sleeping

Habitual Abortion

- 3 consecutive miscarriages
- Screening of patient required before embarking on next pregnancy but most would be negative
- Only those with anti phospholipid antibodies (APA) positive can be treated to improve outcome (aspirin/clexane/heparin)
- 80% still have successful pregnancy

Miscarriage Management:

- Assess patient (history/clinically)
- ‘Ectopic pregnancy’ need to be ruled out!
- Refer patient to A&E or EPAU (SGH)
- If bleeding is moderate to severe and patient in some distress, set up IV line give crystalloids and send by ambulance to A&E
- Management in hospital as described earlier

MOLAR PREGNANCY

- Same concept with miscarriage
- Uterus bigger than dates
- USS features suggestive
- Require S&C – expect massive blood loss, 2 large bore IV lines, GXM 2 units and under GA
- For uterus > 12 weeks (perform in Specialist hospital)
- HPE & regular serum beta hCG
- Follow up for 2 years
- Not to conceive for at least 1year

Molar pregnancy

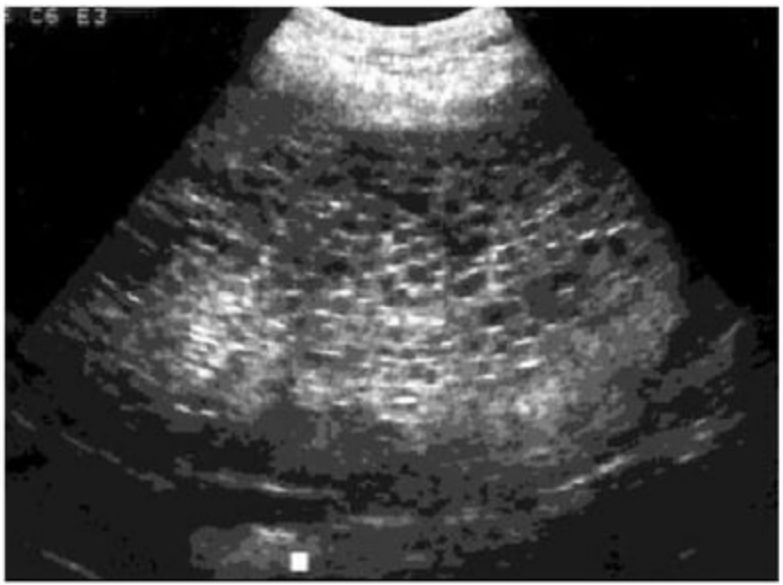


Figure 1: Trans abdominal sonogram showing the snow storm appearance of a posterior placenta, representing molar changes. Foetal abdomen is also seen in axial plane.

‘Hyperemesis Gravidarum’

Hyperemesis Gravidarum

- Exaggerated morning sickness, usually improves after 12 POA
- Nausea, excessive vomiting, unable to eat or drink followed by dizziness, lethargy and dehydration & significant urine ketones
- Need hospitalization, usually 1 to 3 days
- IV fluids D/S alt Hartman 4L/24hrs (1st day)
- IV Maxolon 10mg TDS /suppository stemetil

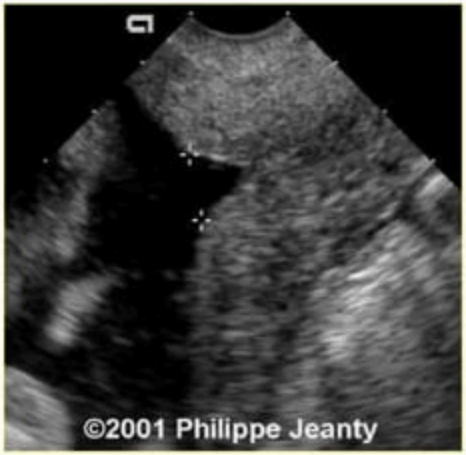
Hyperemesis Gravidarum

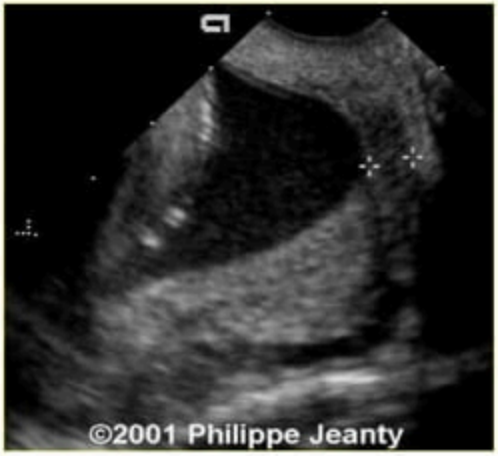
- Veloxin tablets (meclozine HCL 25mg + pyridoxine HCL 50mg) once a day for mild to moderate hyperemesis
- Veloxin 1 tab twice per day for severe hyperemesis
- If symptoms worse in morning can take veloxin at bed time
- Safe in pregnancy

Hyperemesis Gravidarum

- USS required to rule out multiple pregnancy and molar pregnancy
- Discharge with oral maxolon 10mg PRN
- Advise to take small but frequent bland meals, stay away from oily and spicy food, consume nourishing fluids and rest
- Few may suffer till delivery……

‘Cervical Incompetence’

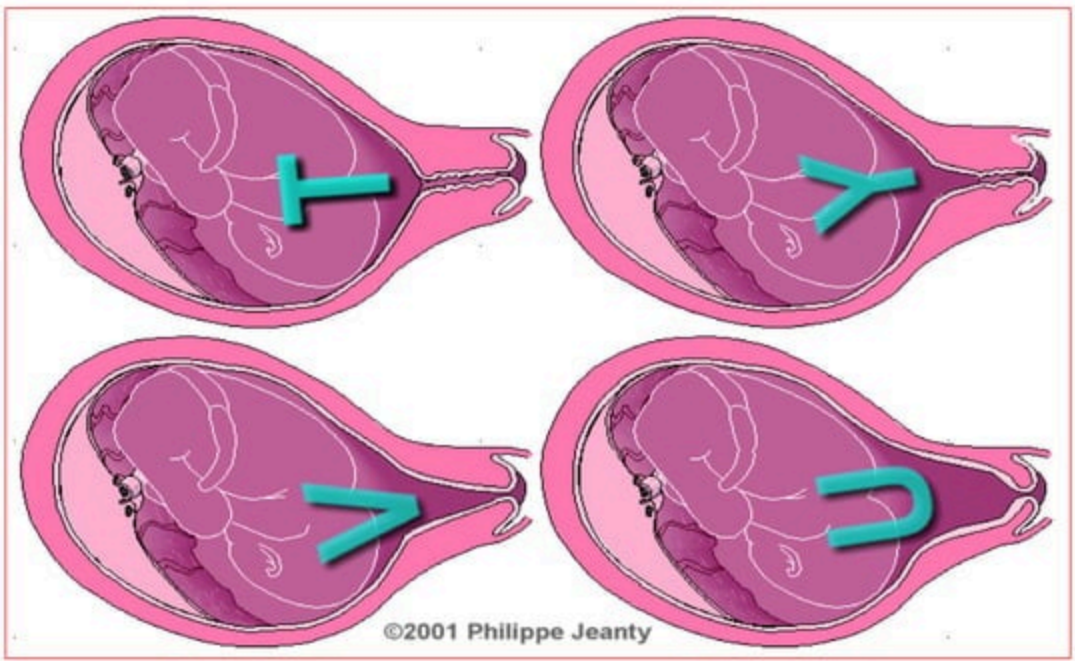




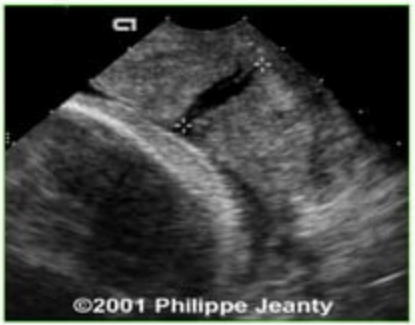
Cervical Incompetence

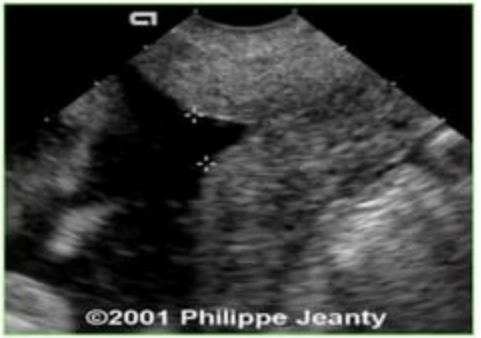
- Defined as the failure of the cervix to retain pregnancy
- The cervix is usually less than 25 mm
- Can also be defined as the ripening (effacement & dilatation) of the cervix in the absence of uterine contractions
- 1 to 2% incidence and accounts for 20% of mid & early third trimester miscarriages

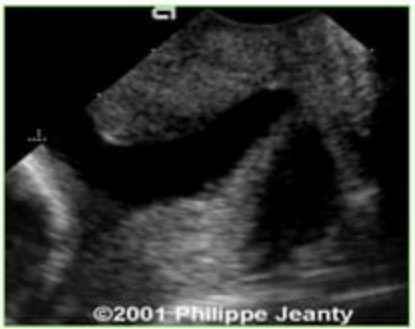
Cervical Incompetence

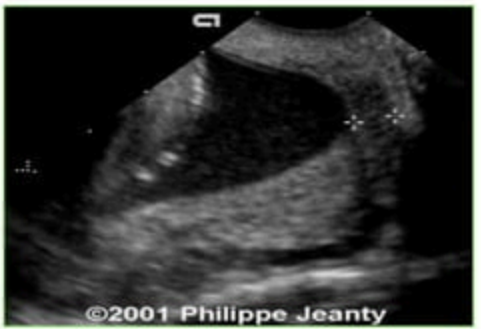


Cervical Incompetence









Cervical Incompetence: Etiology

- Idiopathic (most)
- Congenital abnormalities (mullerian duct abnormalities)
- Exposure to diethylstiboesterol (DES) in utero
- Connective tissue diorders (Ehlers-Danlos Syndrome)
- Surgical trauma (cone biopsy, diathermy, ERPOC)

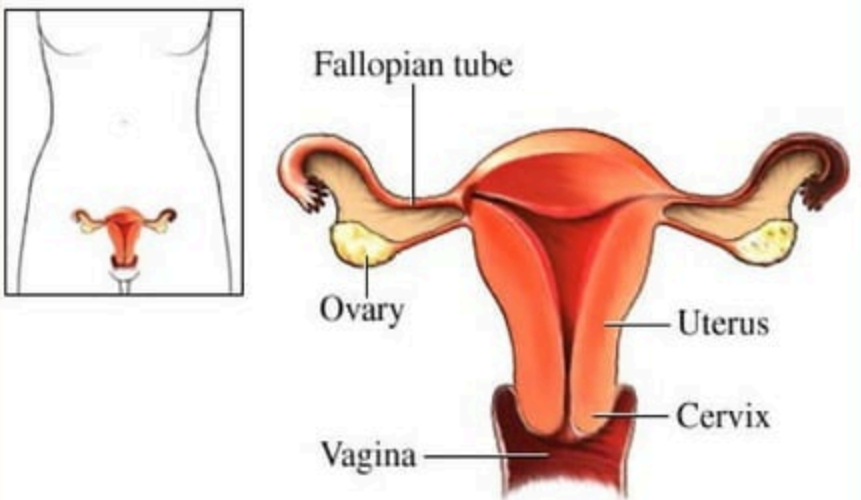
Cervical Incompetence

- Detailed history of POH and previous mid & early third trimester loss crucial
- 'Painless', 'Silent' & quick delivery in previous pregnancy
- If history quite suggestive then plan for 'cervical cerclage' in the next pregnancy at about 14 to 16 weeks POA
- If uncertain, assess cervix in the next pregnancy by USS and digital assessment from 12 weeks POA at 2 weekly interval.

Cervical Cerclage

- Cervical cerclage can be done either vaginally or abdominally under spinal anesthesia
- Mersilene tape is used to stitch the cervix shut at the level of the internal Os
- Tape usually cut and removed at 36 weeks
- Need to monitor patient for vaginal infection and treat accordingly

‘Severe Pelvic Pain’



Aetiology of Pelvic Pain

- Cyclical:
- Premenstrual syndrome
- Primary Dysmenorrhoea
- Pelvic endometriosis
- Ovulation pain/ Mittelschmertz
- Idiopathic

- Non Cyclical
- Pelvic inflammatory disease
- Severe endometriosis
- Pelvic tumours / CA
- Pelvic congestion syndrome?
- All In the mind?
- Surgical causes

Severe Pelvic Pain: History

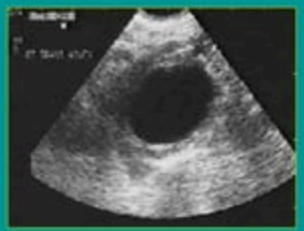
- Cyclical or non-cyclical
- Acute or Chronic
- Ask for history of parity, dyspareunia, vaginal discharge, abnormal PV bleeding, Pap smear, dysuria, urinary frequency, haematuria, altered bowel habits, PR bleeding, LOA & LOW
- Assess severity of symptoms, exacerbating and relieving factors

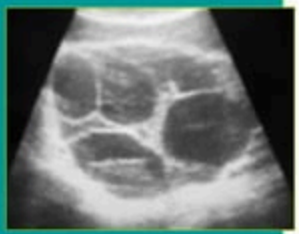
Severe Pelvic Pain: Examination

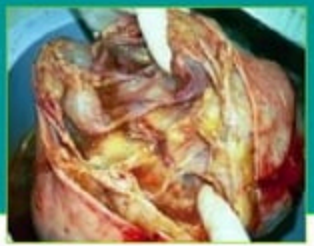
- Abdominal & vaginal examination
- Anaemic? Wasted? Mass arising from pelvis? Abdominal distension? Tenderness? Abnormal growth in lower genital tract?
- USS of pelvis
- Biopsy of abnormal growth in lower genital tract
- Tumour markers (serum Ca 125, CEA, AFP)
- Diagnostic laparoscopy for chronic pelvic pain

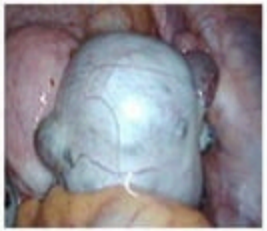
‘Painful’ Ovarian Cyst

- Torsion
- Haemorrhagic
- Ruptured
- Endometriotic cyst
- Cancer

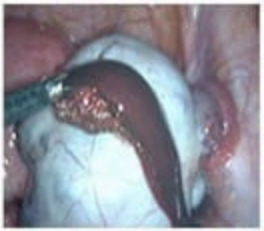








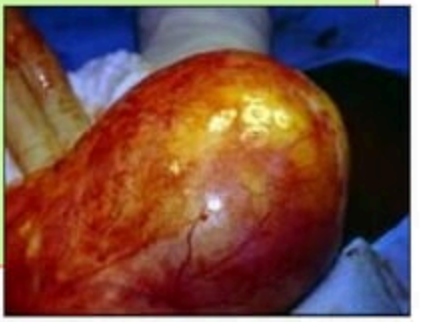
Right ovarian endometriotic cyst



'Chocolate' contents of endometriotic cyst

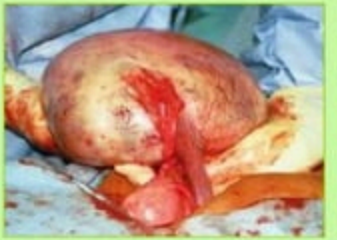
‘Twisted Ovarian Cyst’

- History of severe acute lower abdominal pain usually associated with nausea & vomiting
- Abdomen tender usually associated with a palpable pelvic mass
- USS reveal a moderately large ovarian cyst
- Emergency laparotomy required to ‘safe’ ovary
- Refer to hospital stat!



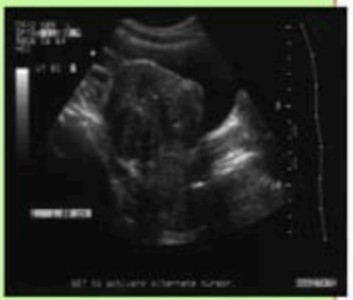
‘Ruptured Ovarian Cyst’

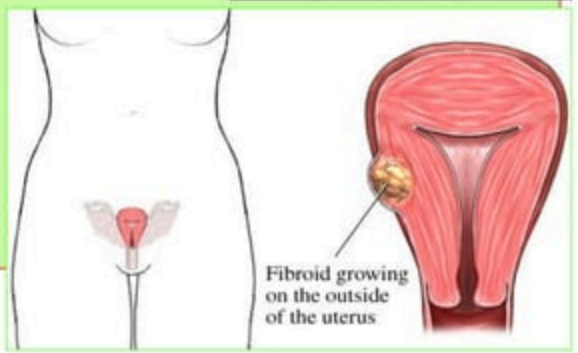
- Presentation similar to twisted ovarian cyst
- Patient maybe known to have an ovarian cyst but is not palpable or not seen on USS anymore
- Evidence of peritonitis
- Haemoperitoneum?
- Probably require laparotomy
- Admit to hospital ASAP



‘Painful’ Uterine Fibroids

- 20% women by 35yrs have fibroids
- Painful fibroids are rare
- ‘Red degeneration’
- Torsion of pedunculated subserous fibroid
- Sarcomatous change
- Look for other causes!



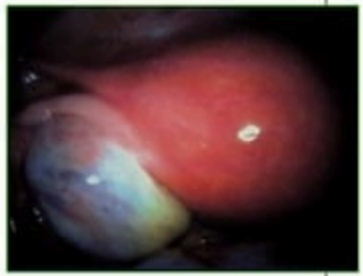


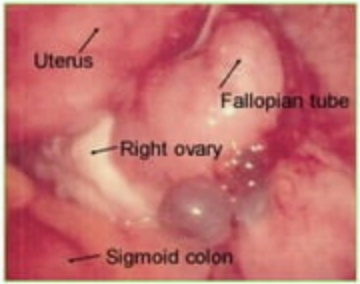
Acute Pelvic Inflammatory Disease

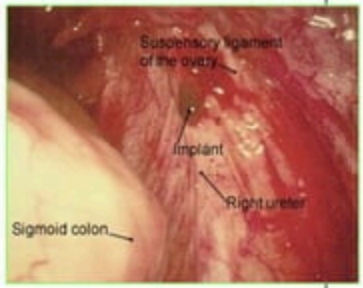
- Common due to 'sexual promiscuity'
- Clinical features: young, sexually active, acute lower abdominal pain/tender, fever with or without abnormal vaginal discharge
- 10 to 14 days of appropriate oral antibiotics:
  doxicycline or cefuroxime or EES or azithromycin plus metronidazole
- Confirmation of PID only by laparoscopy (not compulsory, Rx based on suspicion)

Pelvic Endometriosis

- Common cause of chronic pelvic pain
- Common cause of subfertility
- Medical or/and surgical Rx
- Recurrence 50% by 5 years
- 'Debilitating' disease







Acute Pelvic Pain

- Ectopic pregnancy
- Inevitable abortion
- Incomplete abortion
- Twisted ovarian cyst
- Haemorrhagic ovarian cyst
- Ruptured ovarian cyst
- Uterine rupture

- Uterine inversion
- Acute appendicitis
- Meckel's diverticulitis
- Ureteric calculi
- Acute cystitis
- Trauma
- Pelvic fracture

‘Massive Menstrual Blood Loss’

‘Menstrual Loss’

- Normal cycle between 21 to 35 days
- Estimated blood loss less than 80 ml with flow lasting not more than 7 days
- 60% of women who complains of heavy periods have normal loss
- Extremely heavy menstrual loss is uncommon and alternative causes such as miscarriage or CA of cervix need to be ruled out
- If patient complains of heavy periods and has tachycardia or appears pale, admit patient to hospital for Rx…..

Rx: ‘Massive’ Menstrual Loss

- IV access and send for blood count
- Rule out other causes!
- Transamin 1gm QID and Medroxy progestogen 20mg TDS (provera) to stop bleeding
- Emergency D&C a possibility!
- Plan of management needed and may include medical therapy or surgical procedure
- Role of ‘Mirena’, ‘Novasure’, MEA

‘Emergency Contraception’

Emergency Contraception ~ In the past…

Al-Razi

"First, immediately after ejaculation, let the 2 come apart and let the woman arise roughly, sneeze and blow her nose several times and call out in a loud voice. She then should jump violently backwards seven to nine times"

‘Risk of Conception’

- Unprotected sexual intercourse within day 8 till 18 of a regular 28 day cycle
- Mid-cycle risk is 20-30%
- Effectiveness - time / percent

< 24 h	95%
24-48h	85%
48-72h	58%

‘Morning After Pill’

- Yuzpe method, ethinyl estradiol 100 mcg & levonogestrel 0.5 mg stat plus another dose 12 hours later (85% effective)
- Within 72 hours of sexual intercourse
- Works the same way as progestogen only regimen but more side effects
- Examples: Ovral, PC 4, Lo Ovral
- Alternative: Marvelon, 2 doses of 4 tabs

‘Morning After Pill’

- Progestogen only regimen (85% effective)
- 0.75mg levonorgestrel, 12 hours apart within 48-72 hours after intercourse
- Efficacy equals or better than ‘Yuzpe’
- Prevents ovulation, prevents fertilisation, prevents implantation
- Examples: Postinor-2, Plan B
- Alternately: Overette, 2 doses of 20 pills

Emergency contraception:

- **Plan B**: each dose contains 0.75 mg of levonorgestrel and can reduce risk of pregnancy by up to 89%

- Take 1 white pill within 72 hours after unprotected sex and 1 more white pill 12 hours later

- **Recent research indicates that both doses can be taken at the same time up to 120 hours after unprotected sex**

- **The pills are more effective the sooner they are taken, so take 2 Plan B pills at the same time as soon as possible after unprotected intercourse.**

Ella – emergency contraception

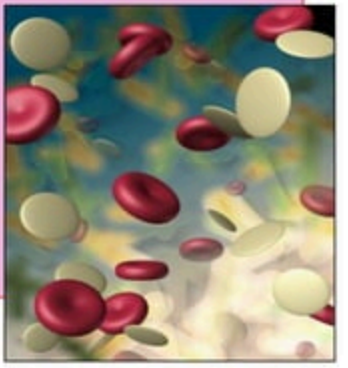
- Single dose of 1.5mg levonorgestrel
- Effective up to 5 days of unprotected sex during a fertile period
- Approved by FDA

Emergency Contraception

- Copper IUCD
- Effective up to 5 days from probable date of ovulation
- Effective even after several acts of intercourse
- Failure rate of 2:100 woman years

‘Cover Against STD’

- Good practice to provide cover for STD, particularly in rape cases
- Azithromycin 1 gram stat or
- Cefuroxime axetil 1 gram stat



‘Thank you’