Obstetrics and Gynecology

Focused History

&

Physical Examination

If you find any mistake or need a soft copy please e-mail me at:
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"In my life I have many goals I have to achieve. Someday I will be a good doctor, a good father and a good lover." Mohammad once said. Unfortunately, however, he had no time to fulfill his desires.

The sudden unexpected loss of our beloved friend Dr. Mohammad Radwan Al Momani on the 15th of November 2015, as a consequence of complications of an automobile accident two months before his death, was a tragedy which brought sadness not only to our hearts; his Family and close friends, but also to those who had the privilege of meeting and working with him.

Mohammed was a man of Nobel character, integrity, honesty, and kindness. These were but few aspects intrinsic to our beloved friend. He had a brave heart, an adventurous soul, and a smile, that never left his face. He was light in a world full of darkness. A man of true bearing and the best friend a man can have. You will live on in both our hearts, and minds. Your memory will never be forgotten.

الى روحك الطاهرة

"محمد حسام" رضوان المومني

(١٩٩٣-٢٠١٥)

TABLE OF CONTENTS

First antenatal visit

When pregnant women comes to you as her first antenatal visit, you should know everything about her, take a history in details, but here you will find most important points.

History Taking:

Gravidity: the total number of pregnancy including the present one, regardless of the outcome.
Parity: the number of livebirths and stillbirths delivered after the age of viability.
Age of viability: 24 weeks

Patient profile

Name, age, occupation, residency,
Gravda and Para, LMP
expected date of delivery, gestational age
blood group (Rh +/-).

To calculate **EDD**:
28 – her period = X days
(LMP + X days) – 3 months + 1 year = **EDD**

Current pregnancy

When you know you are pregnant? And how?
Dose the pregnancy confirmed? And how?
Is this pregnancy wanted? Planned?
Ask about pregnancy symptoms

- Tender, swollen breasts. Early in pregnancy hormonal changes might make the breasts tender, sensitive or sore. ...
- Nausea with or without vomiting. ...
- Increased urination. ...
- Fatigue. ...

Ask about urinary symptoms (dysuria, frequency, urgency)
the urinary symptoms are common in pregnancy but maybe UTI

Ask about bowel habit (constipation, diarrhea)
change in bowel habit common in pregnancy

Ask about vaginal bleeding
vaginal bleeding is common during first trimester

Gynecological history

ask about age of her menarche

about menses, is it regular/ irregular, heavy/ light, come every …… days, and last for …… days

how much pads she change every day? Is it fully soaked? Is there is flooding? Is there any clots?

Ask about history of intermenstrual bleeding

history of post coital bleeding

history of dyspareunia(post coital pain) superficial/ deep

history of vaginal discharge. Nature, amount, color and odor

history of dysmenorrhea. Primary/ secondary

history of contraceptive use. method and duration

history of gynecological operation

history of infertility period

last Pap smear

Obstetric history

when was she married? The year

ask about each baby:

year

wanted/ unwanted. Planned/ unplanned

gestational age (term/preterm)

type of delivery. Spontaneous normal vaginal delivery/ induced vaginal delivery/ assisted delivery/ CS. If not normal vaginal ask about the cause

antenatal or postpartum complication

if the baby admitted to ICU and why

if followed by D&C

details about the baby:

- baby's gender
- weight at delivery
- viability of baby
- baby abnormality
- breastfeeding

if there are miscarriages ask about the cause

Ask about past medical and surgical history
any about hypertension and DM
any pelvic surgery

Ask if she take any medication

Ask about her family history
if there is history of twins in her relatives or history of recurrent miscarriages

Ask about smoking and Alcohol.

##Calculate the BMI
##Take the blood pressure every visit.

Investigation:

- Blood test: to know her blood group, CBC to look for anemia or infection
- Urine test: analysis and culture
- Rubella IgG
- RPR: looking for syphilis
- Hepatitis B tests
- HIV test

كل انسان خلق لغاية ورسالة،
ليملأ فراغا ينتظره ، والبحث
يبدأ من الداخل من ذات
الانسان...

Antepartum hemorrhage (APH)

"Bleeding from or in to the genital tract from the 24^0 weeks of pregnancy & prior to delivery of the baby"

***Patient profile:**

Name, age, occupation, residency,
Gravda and Para, LMP
blood group (Rh +/-).

***Chief complaint:**

Vaginal bleeding + Duration

***H.O.P.I:**

-Onset*:* spontaneous, following trauma, following PV exam or intercourse.

-Duration

-Course*:* continuous\intermittent, single attack\recurrent.

-Amount*:* spotting or excessive (presence of clots)

No. of pads\day (soaked or not??)

Need for blood transfusion?

-Color*:* bright red or dark red.

-Aggravated by*:* movement, household activities.

-Relieved by*:* lying down, resting.

-Severity (consequences): dizziness, loss of consciousness, SOB, palpitation, oliguria. {Anemia}

-Associated symptoms: Painless VS Painful\uterine contraction

If it's painful >> Ask:

-Onset with bleeding? –Site & radiation. -Character.

-Duration, frequency, duration. –Severity.

–Aggravating & Relieving factors.

-Passage of liquor\Gush of fluid?? *:* Amount, color, smell, timing.

-Fever??

-Fetal movement, if it's affected or not??

-Hx of vaginal bleeding (APH) during current pregnancy or previous pregnancies.

-Multiparous?? {3X more common than primiparous}.

DDx:

1- Abruptio placenta AP >> Sudden localized abdominal pain with\without vaginal bleeding, uterine contraction, shock or fetal ditress.

Risk factors { ask about : Hx of previous AP, HTN diseases, direct trauma, RTA, chronic chorioamnionitis, thrombophilias, increasing maternal age (> 35 y) & age < 20, smoking, Cocaine use, anemia, prolonged rupture of membranes (> 24 h), short umbilical cord, multiparity **}.**

2- Placenta praevia PP >> Painless & recurrent bleeding.
Risk factors { Hx of PP with a previous pregnancy, Scars in the uterus (previous C/S, D&C, myomectomy), large placenta (multiple pregnancy), abnormally shaped uterus, Age >35 (9x > 40yrs), Asian, smoking, multiparity **}**

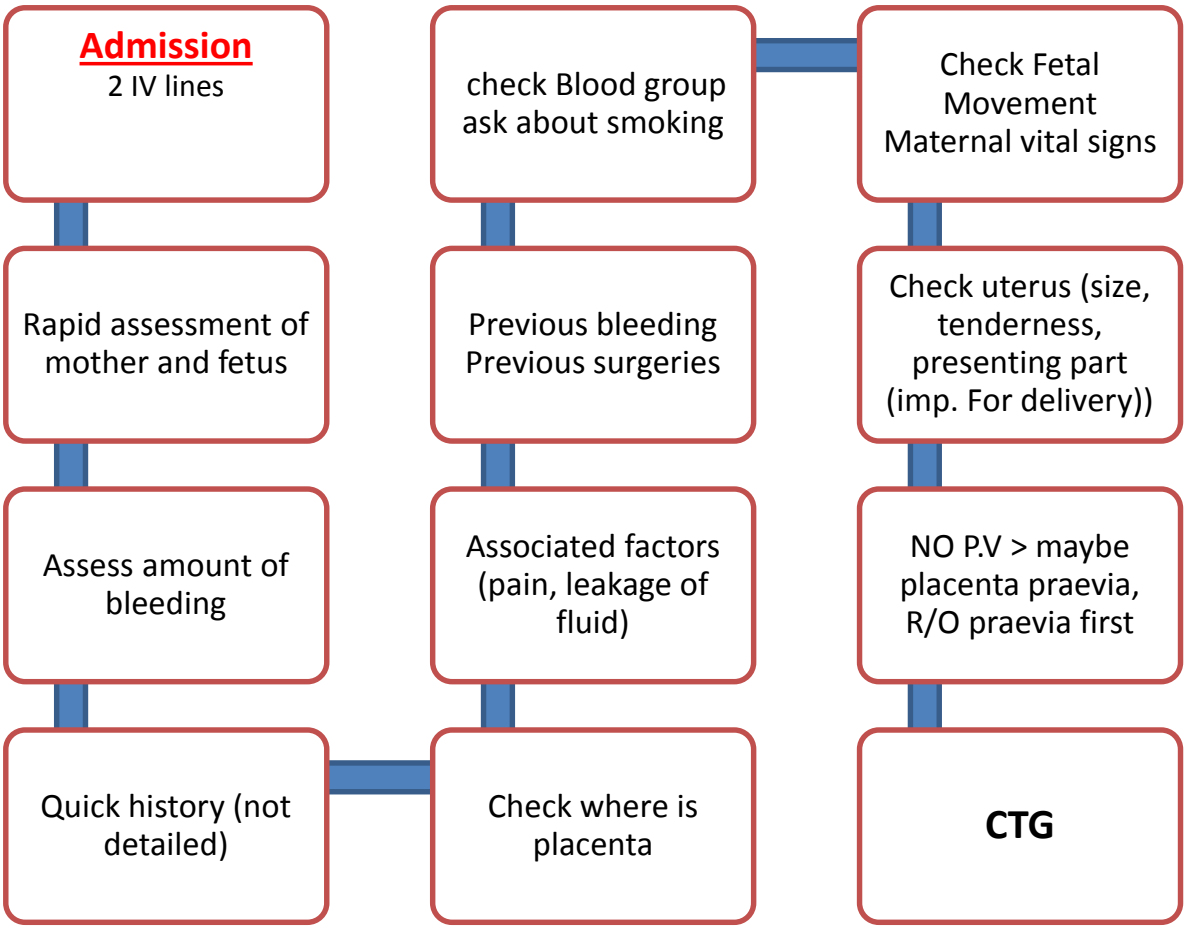
3- Vasa previa >> Classic triad {membrane rupture, painless vaginal bleeding, fetal bradycardia}
Risk factors {Multiple pregnancy, abnormal insertion of the cord}.

4- Uterine rupture >> Sudden pain, vaginal bleeding, abnormal CTG**.**
Risk factors { Classical CS, multiparity, uterine distension **}.**

5- Show

6-Local causes { Vulval or cervical infection, trauma or tumors,
Cervical polyp, haematuria, haemorrhoids **}**.

***Management for all presenting with APH:**



Complications

- Premature labour.
- Disseminated intravascular coagulopathy.
- Renal tubular necrosis.
- Postpartum haemorrhage.
- Placenta accreta: this complicates approximately 10% of all cases of placenta praevia but is rare in the absence of placenta praevia.

Hyperemesis Gravidarum

Nausea and vomiting are the most common symptoms of pregnancy.
It affect 50-90% of pregnant women.
A more severe form of nausea and vomiting in pregnancy affects less than 1% of women and is referred to as ((hyperemesis gravidarum)).
Different definitions of hyperemesis gravidarum exist, but the important features are intractable vomiting associated with weight loss of more than 5% of pre-pregnancy weight, dehydration, electrolyte imbalances, ketosis, and the need for admission to hospital.

Note : you will Take Full Hx as usual, but the written down are the most important that you must ask about .

History Taking :

Ptn profile :
Age and Parity (cause it's more common in Younger Primiparous women)

HOPI:
Onset/duration
timing
severity
pattern
Alleviating and exacerbating factors

(Relationship to meals, medications, prenatal vitamins, stress, other triggers).

-History of nausea and vomiting in previous pregnancies .

-If Multiple or Molar Pregnancies OR has previous Molar Pregnancy (high concentrations of HCG).

-If untolerate heat / change in bowel habit / tremor / sweating / Tachycardia / enlarged thyroid gland (goiter) / Fatigue, muscle weakness. (because the

structural homology between HCG and TSH and their receptors facilitates cross-reactivity between these two hormones)

-If has preexisting Diabetes or previous psychiatric illness. (more common with!)

-Fever?/ diarrhea / Abdominal cramps and pain (To exclude Gastroenteritis).
-If has Peptic ulcer?

-Dysuria / Freguency / urgency (To Exclude UTI)

-Headache ? -PET ? -Migraine ?

Investigations :

Full blood tests

Urinalysis

pelvic ultrasound (to assess severity and to rule out other causes and molar pregnancy)

Treatment :

Psychological support :reassuring women that nausea can be part of normal pregnancy, that nausea is likely to settle as the pregnancy progresses.

Advise women to avoid exposure to triggers such as specific odours and particular foods.

Rehydration is first line treatment either oral / IV according to severity and as needed.

Antiemetics as Metoclopramide, Cyclizine (in cases of ongoing nausea and vomiting,)
parenteral antiemetics (If intractable vomiting)

Corticosteroids (IF intractable cases of severe hyperemesis gravidarum)

Complications of hyperemesis gravidarum :

Maternal complications

(Weight loss/ Dehydration /Electrolyte abnormalities >>Hyponatremia Hypokalemia<</ Vitamin B-1 deficiency → Wernicke's encephalopathy / Vitamin B-12 and vitamin B-6 deficiencies →anaemia and peripheral neuropathies/ Mallory-Weiss tears of the oesophagus)

Fetal complications (Fetal growth restriction and prematurity)

Differential diagnosis of nausea and vomiting in pregnancy :

Gastrointestinal (for example, infection, gastritis, cholecystitis, peptic ulceration, hepatitis, appendicitis, and pancreatitis)

Neurological (for example, migraine, central nervous system diseases)

Urinary tract infection

Ear, nose, and throat disease (for example, labyrinthitis, Ménière's disease, vestibular dysfunction)

Drugs (such as opioids and iron)

Metabolic and endocrine disorders (such as hypercalcaemia, Addison's disease, uraemia, and thyrotoxicosis)

Psychological disorders (such as eating disorders)

Pregnancy associated conditions (such as pre-eclampsia and molar pregnancy)

"بعد سنة من الآن ربما ستتمنى لو أنك بدأت اليوم."

HYPERTENSIVE DISORDERS IN PREGNANCY

1. History of chronic hypertension/renal disease/DM

SLE/ANTIPHOSPHOLIPID SYNDROME

2. History of previous PET og gestational hypertention in previous pregnancy /hydatiform mole /hydrops fetalis

3. Family history

4. First pregnancy or multiple pregnancy

5. Flashing lights

6. Photophobia

7. Headache

8. Visual field loss

9. Epigastric pain

10. Vomiting and nausea

11. Bleeding tendency

12. Epigastric or RUQ pain

13. Rapid oedema (especially face)

14. Decrease amount of urine (oliguria)

15. Last reading of blood pressure

****

Question analysis:-

(1-4) ----- > risk factors

(5-14) --- > symptom of hypertension /mostly with severe PET

****

INVESTIGATIONS:-

1. CBC
2. URINE ANALYSIS
3. LFT
4. COAGULATION PROFILE
5. LDH (marker for haemolysis)
6. Protein in urine/24h

إنّ خلف كل الم يمر بنا معنا...
واعمق المعاني تولد من رحم المعاناة...

Gestational DM

Gestational DM starts from 20 or 25 Wk (which one?)

If <20 weeks (early)→its whether >30 in age or previous GDM.

History taking:

- Family history of DM
- Previous pregnancy: (normal delivery) or C/S, any complication such as bleeding?
- Previous baby: How big was the baby?
- S/S of DM: polyuria, polydipsia, blurred vision
- BP (DM associated with PIH) → (pregnancy induced hypertension)
- Was the blood sugar checked?
- Was it a plan pregnancy? (a diabetic lady must be taken in consideration in planning for pregnancy)

Physical examination:

- GA (gravid abdomen)
- Abdomen: lie and size of the baby
- Might do fundoscopic examination → refer to ophthalmologist

Investigation:

- If GCT (glucose challenge test) was done before → do GTT (glucose tolerance test)
- If GTT was done before → repeat GTT
- U/S to see how big, position
- FHR and CTG

Management:

1. Refer to the hospital for assessment and monitor (might need admission)

2. Tell her that she has gestational diabetes and explain about DM, after delivery blood sugar will return to normal; about 40-60% may develop DM in the future.
3. Explain about <u>complication</u>
    a. Complication to mother and pregnancy
        - 40-60% develop DM in the future
        - 2nd baby might be big
        - Long labour
        - Polyhydramnios
        - Pre-eclampsia
        - Bleeding (PPH)
        - PROM
        - ↑ risk of obstetric intervention
        - Bleeding from placenta
    b. Complication to the baby
        - Hypoglycaemia after birth
        - Shoulder dystocia
        - Prematurity
        - Cord prolapse
        - Big baby

    That's why we need to monitor your diabetes to prevent and detect complication earlier.

4. Life style change: diet control for few weeks then if the blood sugar can't be controlled, go for insulin (no tablet).
    Why I can't take tablet?

    It's not enough time to absorb tablets and you might have Nausea & vomiting that decreases the efficiency of the medication.

5. Regular follow up
    a. Sugar level 3-4 times/day
    b. Urine protein
    c. CTG every week after 32 week
    d. U/S every 4 weeks
    e. Check kidney function

    Tell her that she might to deliver before term, when the lung is mature enough.

Prelabour rupture of the membrane:

Definition:

Prelabour Rupture Of the Membrane (PROM) means rupture of the membrane before the onset of labour.

Preterm prelabour rupture of the membrane (PPROM): is rupture of the membrane before 37 weeks.

History Taking:

This fluid leak may be subtle (e.g., increased wetness noted on undergarments or pants) or may be substantial (e.g., a "gush" of fluid). A careful history should be obtained to distinguish the causes of discharge such as **cervical infection**, **physiological mucus production** (or loss of the mucus plug), **urinary incontinence**, or **UTI**. Although each of these requires evaluation and diagnosis, management varies considerably from that for PROM.

Patients may also present with reported "urinary" symptoms such as urinary incontinence or urinary frequency. Such symptoms are both common and challenging. Anatomic changes associated with pregnancy such as increased uterine and fetal size increase urinary incontinence. Physiological changes associated with pregnancy such as relative outflow obstruction and urinary stasis increase the likelihood of urinary tract infection. For this reason, such urinary symptoms should be carefully detailed.

Chief Complaint:

Patients with PROM will often report discharge or "leaking" per vagina.

History of Presenting illness:

** You have to know in which trimester she is and when is her EDD

-Timing: When did it happen?

What was she doing when she felt the gush of fluid (was she sitting or was she passing urine..Etc)?

-Amount: Did the fluid wet her underwear only? or flooding happened ? Did she have a gush and no more afterwards or is it still dribbling?

-Color: -Yellowish --> urine
-Blood stained → (abruptio with PROM)
-Greenish→ meconium (the babies poop and reflects fetal distress)

-Smell: If it smells like ammonia, it's probably urine. If it has a somehow sweet smell, it's probably amniotic fluid.

-Urinary symptoms: urgency, dysuria, hematuria, abdominal pain, fever chills (Urinary incontinence/frequency)**OR** (UTI is associated with PROM)

-Painful/painless Bleeding Per vagina: abruptio placenta / placenta previa.

-Pain in low back or anywhere / **Feeling of contractions** :
(here if it's positive , R/O true labour pain vs. Braxton flicks sign - False labour pain)

Onset/duration/pattern: cont/ intermittent/ site/radiation/severity /character/aggravating and relieving factors(SOCRATES).

-Smoking during pregnancy: smoking increases chance of PROM.

-History of previous early membrane rupture: increases chance of PROM

-History of preterm labor: increases chance of PROM

-Is she carrying **multiples/** or has **polyhydramnious**: increase chance/risk of PROM.

-Fever, chills, rigor, tachycardia, Foully vaginal discharges : to R/O chorioamnionitis

Prior Infections

-You should ask about **fetal movements**!!
-History of **recent sexual intercourse**.
-chronic cough or respiratory problem?
-Any complications during her pregnancy?

****** Then you continue with her Past**
Medical Hx.
Surgical Hx.
Systems review
Gynecological Hx.
Obstetric Hx.
Social Hx.

Physical Examination :

1)check the **vital signs and temperature**

Fever and tachycardia are signs of infection/chorioamnionitis

2)Abdominal exam:

-check if there is **Contractions/tenderness/ oligohydromenious**

-oligohydromenious causing the fundal height to be less than the GA because of leakage of liquor.
-Tenderness indicates infection

3) Speculum exam: To confirm the diagnosis!!! . check for :

- presence of Pool of fluid in the vagina / cough impulse / blood or mucous?!.

-check for dilatation / effacement/ presence of the cord.

(don't forget to comment about the cord when in the OSCE)

- take high vaginal swap

- take amniotic fluid to assess lung maturity: L/S ratio, and phosphatidylglycerol.

Investigations:

-. **Nitrazine test:** the vagina has an acidic pH while the amniotic fluid is alkaline so in PROM the color will change to black (alkaline) false positive in the case of blood, urine or semen

- **Ferning test**: crystallization of the salts in the amniotic fluid when it dries.

- **Genital tract swab** to screen for group B streptococcus/E coli.

- Maternal well-being: Vital signs/WBC/CRP/ Blood culture/Urine culture and analysis.

- Fetal well-being: Full Biophysical profile (Non stress test…etc).

-**US** has a controversial role in the diagnosis of PROM, But it can give Info. About:
1. GA (GA should he carefully assessed by: 1. LMP. 2. fundal height. 3. U/S)

2. Fetal growth to R/O IUGR

3. AFI for oligohydramnious (V. imp)

4. Presentation

5. R/O fetal anomalies

Others:
- Amnio dye test or Tampon test: injection of a dye into uterus to look for leakage from the cervix.

- α FP in amniotic fluid?

- Fetal lung maturity by L/S ratio?

- Amniocentesis: done to obtain some amount of amniotic fluid for culture and analysis

This is an invasive procedure we don't do it anymore!!

Management:

Should be **individualized**

Depends on: 1. GA 2. Amount of amniotic fluid lost

1) Admission to monitor the mother and the fetus

2) Examination as mentioned above.

3) Medications:

— Hydration

— I.V antibiotics (penicillin, gentamycin, erythromycin)

— Tocolytic agents (questionable?!)

— Dexamethasone for lung maturity

If there is infection on presentation or anytime during investigations → I.V antibiotics + immediate delivery regardless the GA.

If infection is ruled out, then:

GA> 34 wks → delivery
GA < 34 wks → **expectant management*** (aim is to ↑ GA till lung maturity):
— Prophylactic antibiotics (penicillin/ erythromycin)
— Tocolytics (questionable as it masks signs of infection, suppress labor only for 48hrs to give dexamethasone)

expectant management if 1. no PTL

2. no infection

3. no fetal distress

Differential diagnosis:

1. Amniotic fluid (PROM)
2. Urine (stress incontinence)
3. Vaginal discharge, leucorrhea (vaginal infection)
4. seminal fluid collection (sexual intercourse)
5. dilation of cervix and loss of mucus plug.

Remember

In PROM:

Speculum is the definitive diagnostic test ☺

Remember Don't do a digital exam, no PV!!

Post partum hemorrhage

Hemorrhage from the birth canal in excess of 500 ml after a vaginal delivery or 1000 ml after a cesarean delivery during the first 24 hours after birth.
Clinically diagnosed as 10% change in HTC.

History Taking:

Patient profile:

Name, age, occupation, residency, Gravida and Para, blood group (Rh +/-).
When she delivered her baby? Sex of the baby?
What was age of gestation when she delivered?
Mode of delivery? (Normal vaginal (spontaneous or assisted), CS)

Chief compliant:

the mother will come to you in post partum hemorrhage. *(Continuous bleeding which fails to stop after delivery of the placenta - third stage.)*
Ask about duration.

History of Presenting illness

-Ask about bleeding onset?
To determine if It is primary PPH (<24h) or secondary PPH (>24 h up to 6 weeks)

-Ask about duration, amount (pads/day, soaked, clots), color, frequency of bleeding, severity of symptoms (oliguria/dizziness/palpitation/SOB)?
To determine severity

-Ask about passage of tissue? (Retained product of conception (retained placenta))

-Ask about mode of delivery if NVD or AVD (by forceps or vacum, C/S)?
(Assisted vaginal delivery could lead to lacerations of genital tract)

-Ask about time and duration of labor (prolonged or rapid)?
(Prolonged labour is a risk factor for uterine atony)

-Ask about GDM, Polyhydraminos, Macrosomia, Multiple Gestations?
(These are risk factors for enlarged uterus which is a risk factor for uterine atony)

-Ask about prolonged use of oxytocin in induction and augmentation of labor (fatigue)?
(It could lead to uterine atony)

-Ask about PET and if she takes mgso4?
(Could lead to uterine atony)

-Ask about Fever, uterine tenderness or contractions, foul smelling vaginal Discharge, meconium in amniotic fluid?
(It could indicate endometriosis or chorioamnionitis (bacterial toxin is a cause of uterine atony and hence PPH))

-Ask about History of APH?
(It could indicates placental sites disease)

-Ask about uterine inversion? If placental delivery was difficult and retained?
(Causes of PPH)

-Ask about Cervical and genital tract trauma during diff. Labor?

-Ask about bleeding from other orifices [Hematuria, epistaxis, PR, ecchymosis, haemoptysis, aspirin/heparin intake or fetal demise (DIC).
(Coagulopathy as a cause of PPH)

-Ask about history of fibroid?

-Ask if she has any U/S before delivery? If yes ask about:
Presentation (transverse, breech)
Fetal demise
Placenta: location

-Ask about past obst. History? History of previous PPH?

#Med. Hx : GDM(macrosomia, Polyhydr.), PET, Coagulopathy, Liver disease, Blood Tx.

#Surgical Hx: Previous uterine surgery, episiotomy

#Social Hx: smoking, alcohol

Physical Examination :

1-**General Look and Vital signs** (Tachycrdia /hypotension/pale?)
2-**Fundul height** (Above Umbilicus indicate uterine atony)

3-You should **Examine the placenta** (as missing parts indicate retained placental tissue)

4-**Speculum Exam** (lacerations …ets)
5-**Examination of the bleeding itself** (absence of clots indicate coagulopathy)

Investigations:

Blood tests for:

- CBC, blood type, cross matching.
- Coagulation profile [PT, PTT, fibrinogen, d-dimer]
-KFT [urea & electrolytes]

Management:

Call for HELP! (You will not save your patient by yourself alone!)

ABCs:

Assess the Ptn. [tachycardia, tachypnea, pallor, oliguria, sweating] and resuscitate your ptn is the First line of treatment.
2 IV lines & Replacing blood loss, fluids
Foley's catheter to empty the bladder & monitor Urine output.

By palpation:
-Assess fundal height.
-Continuous manual message (local release of Prostaglandins)
-Bimanual uterine compression

Give Oxytocin

Manual exploration:
-IF Retained tissues [placenta, clots] in the uterus → remove it.
-IF Cervical injury, birth canal lacerations, uterine inversion, dehiscence, or rupture→surgical Repair.

Try other uterotonics:

- Methergine or ergometrine

- Cytotec(misoprostol): **PGE1**

-Hemabate(carboprostol): **PGF2α**

If still bleeding, consider coagulopathy:

-Give FFP, cryoprecipitate and/or platelets

If coagulation is normal, consider:

-B-lynch suture
-Embolization of uterine artery
-Internal iliac artery ligation

Hysterectomy (as a last resort)!!

Remember **Always and Always that you can prevent the PPH by:**

1- **Identifying the high risk patients**

2- **Active Managment of labor:**

- R/O Cephalopelvic disproportion

-avoid instrumental delivery

3- **Active Managment of 3rd stage of Labor:**

-prophylactic oxytocin immediately upon delivery of the anterior shoulder.
-early cord clamping and cutting.
-gentle cord traction with suprapubic counter pressure to avoid inversion when the uterus is well contracted.

Postpartum report

To write postpartum report you should be with mother in labour room, OR you can take history from mother and midwife. Here you will find most important points to write a postpartum report.

History Taking:

#patient profile

Name, age, occupation, residency, Gravda and Para, blood group (Rh +/-).
When she delivered her baby? Sex of the baby?
What was age of gestation when she delivered?
Mode of delivery? (Normal vaginal (spontaneous or assisted), CS)

current pregnancy

when was LMP? Certain about it?
How was the pregnancy confirmed?
Was a pregnancy wanted? Planned?
Did she have regular antenatal visit?
Did she was on tonic (multivitamins, folic acid, iron, …) ?

#Labour

labour begun by? (Painful uterine contractions, increasing in duration and frequency)
When the contraction started?
Followed by? (a show and spontaneous rupture of membrane / a show but no spontaneous rupture of membrane / a spontaneous rupture of membrane / neither show nor spontaneous rupture of membrane).
When she admitted to hospital?
Did her cervix was dilated at the time of admission? And how much? By cm
when she sent to delivery? Time, and how much the cervix was dilated at this time?
first stage lasted for?
Second stage lasted for?
Was she given induction? (oxytocin, PGE, ….)
Which type of analgesia was given?

The delivery was? (Spontaneous, instrumental, CS). If instrumental OR CS why?
Time of delivery?
Weight of baby? And if he/she admitted to ICU? And why?

Lochia

Color? (Red, brown, white,..)
Odor? (Odorless, pungent odor)
are there a clots?

Since she returning from delivery

Is she ambulatory now?
Is she has passed her bowels?
Is she has experienced some flatus?
Is she voided her bladder?
Is there a pelvic pain? Another pain?
Is she breastfeeding? Or planning to?
Is she planning for contraceptive?

Then continue with gyne, past obstetric, surgical, medical and family history.

لعل الله يأخذك من حال لآخر ... ويجعلك تختبر
الشعور ونقيضه
لـ يجعل لك جناحين لتطير بهما اليه .. وليس جناحا
واحدا! ☺

Amenorrhea

Have you ever have menstruation? If yes go to secondary amenorrhea history /if no ask primary amenorrhea question

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#Primary Amenorrhea

Ask about:

1. History of delayed puberty in mother or sibling

2. Anorexia nervosa

3. Stress

4. Excess exercise

5. anosmia/hyposmia

6. Learning problem

7. Child hood cancer requiring chemotherapy radiotherapy

8. Cyclic pelvic pain

9. Urinary retention

10. Do you have pubic hair or axillary hair

11. Do you have change in your breast (development)

12. Hair loss /cold intolerance / weight gain / constipation

13. Galactorrhea

14. Headache

15. Reduce peripheral vision

16. Histoy encephalitis or meningitis

17. Abdominal surgery that lead to remove of ovary (tumour /cyst / tubo ovarian abscess)

18. Hisitism

19. Deep voice

20. Poldness (male pattern)

21. Acne

22. In past medical history ask about DM/RF/CF

23. In drug history ask about: anti depressant and anti epileptic drugs

Note: - if she is married exclude pregnancy even it is a rare cause

****

Question analysis:-

(2-4) ------ > GNRH pathway destruction /commonest cause of pituitary amenorrhea

(5-6) ------ > suggestive kallman's syndrome

(7) --------- > toxic to gonads

(8-9) ------ > suggestive imperforated hymen

(10-11) --- > to differentiate the site of the problem

(12) -------- > hypothyroidism

(13-15) --- > anterior pituitary adenoma

(16) -------- > destruct hypothalamic pituitary pathway

(19-21) ------ > PCOS

****

INVESTIGATION:-

1. FSH& LH
2. oestradiol level
3. Peripheral blood karyotype
4. Pelvic U/S and MRI

#Secondary amenorrhea:-

Ask about:

1. Duration of amenorrhea
2. History of previous menstrual cycle
3. History of contraceptive use (type & duration of use)
4. Histoy of sup fertility & how long/ history of D&C
5. History of PID & STI
6. History of severe blood loss or shock after delivery
7. Breast feed
8. Galactorrhea
9. Headach
10. Visual disturbance

11. hirsitism

12. Acne

13. Deep voice

14. Booldnes (male pattern)

15. Age of menopause in mother &older sister

16. Night sweet

17. Fatial flushing

18. No discharge

19. Nausia

20. Vomiting

21. Hair loss /cold intolerance / weight gain / constipation

22. In drug history ask about: anti depressant and anti epileptic drugs

23. Ask about herbal use and over the count drug

24. Ask about cocaine use!!

****

Question analysis:-

(2) ----- > regularity of the period

(3) ----- > some contraceptive cause amenorrhea ex: long acting depot medroxy progesterone can delay the return to normal cycle up to 1 year

(4) ------ > ASHERMAN'S syndrome

(5) ------- > adhesion & destruction of the endometrium

(6) ------ > Sheehan syndrome

(7) ----- > total breast feed can cause amenorrhea for 6 month

(8-10) --- > anterior pituitary adenoma

(11-14) --- > PCOS

(16-18) --- > POF /early menopause

(19-20) ---- > pregnancy

(21) ------ > hypothyroidism

****

Investigation:-

1. BHCG
2. BRAIN CT
3. TFT
4. FST/LH
5. PROLACTIN

"اللهم انّا نستعيذك من أن تكتب علينا الهزيمة امام منصف

الاشياء، بلّغنا تمامها او انزعها من قلوبنا"

Abnormal Uterine Bleeding

#Abnormal uterine bleeding (AUB) is any bleeding from the uterus (through vagina) other than normal monthly period.

#It is a common gynecologic complaint, accounting for one-third of outpatient visits to gynecologist.

History Taking:

Patient profile:

Name, age, occupation, residency,
Gravida and Para, blood group (Rh +/-).

Chief compliant:

female will come to you complains of vaginal bleeding

HOPI:

* Onset, duration

*Analysis of the bleeding:

- ✓ amount, color,
- ✓ passage of clots/tissues/vesicles
- ✓ severity : (no# of pads per day/soaked)?
- ✓ Associated symptom: pain, fever, persistent vaginal discharge.
- ✓ Symptoms of anemia (postural dizziness, dyspnea, fatigue, palpitation)

* Analysis of previous normal cycle**:** duration, regularity, no# of pads, soaked? , color, presence of clots, associated dysmenorrhea and define its type, intermenestrual bleeding or spotting.

*LMP, sure?, was regular (the last 3 cycles), lactating.

*Assess for symptoms of pregnancy if sexually active (morning sickness,

Nausea & vomiting, breast fullness & tenderness, urinary frequency & constipation), method of birth control**.**

*Ask **specifically** about the type of contraception used and if it's hormonal check the compliance for it / if miss pills ? (breakthrough bleeding) , If it's IUD when inserted ? any complication happened associated with ?

* Ask about chronic illness (DM, RA), sever stress, excessive exercise, eating disorders (anorexia, sudden wt change) ? (Hypothalamic related).

*Ask about symptoms hypo/hyperthyroidism :
- Tremor, Sweating , heat intolerance , goiter , tachycardia , Nervousness, anxiety and irritability → **hyper.**
- cold intolerance , weight gain , bradycardia , Fatigue , constipation , impaired memory → **hypo**.

*Ask about Pallor , anorexia , weight loss , pelvic mass (symptoms of malignancy).

* History of pelvic Infections/ STD ?

* Recent Trauma/ Pelvic surgeries ?

*Post-coital Bleeding ?

* Ask about bleeding from other orifices [Hematuria, epistaxis, PR, ecchymosis, haemoptysis, aspirin/heparin intake or fetal demise (DIC)?
Coagulopathy as a cause of AUB

*last Pap smear?

* Ask about pressure symptoms: urinary frequency, urgency & retention, incontinence, constipation, pain on defecation
- recurrent pregnancy loss (Symptoms of Fibroid)

Past medical history:
DM, thyroid disease, bleeding disorder, HTN, breast disease.

Drug Hx:
ask specifically about Anticoagulants (Heparin), tamoxifen.

Family history:

[Endometrial /breast/colon /cervical/ovarian] cancer.

Family history of bleeding tendency

Social history

smoking and alcohol.

Physical Examination :

1) **General Examination** (ill? Signs on Anemia /pale? , BMI) + **Vital sign** (assess hemodynamic stability)
2) **Neck Examination** (thyroid)

3) **Breast Examination** (breast development ,galactorrhea, breast atrophy)

4) **Abdominal Examination** (masses/Ascitis)

5) **Pelvic Examination**

- External genetalia Inspection of vulva and perineum (masses/fissures/ulcers/pubic hair?)
- Speculum Examination(polyps/ulcers/masses/cervical motion tenderness)
- Bimanual Examination(uterine or Adnexal mass /tenderness)
- LN Examination (Inguinal and supraclavicular)

Investigations :

- ✓ Labs :
  CBC (Hb), platelets, pregnancy test , coagulation profile (PT & PTT), blood type & Rh, TFT (TSH, T4), LFT, KFT, prolactine level, serum progesterone & estrogen.

- ✓ Pelvic U/S
- ✓ endometrial biopsy, pap smear
- ✓ hysterosalpingogram, hysteroscopy , laprascopy
- ✓ D & C

Differential diagnosis:

1) **Hypothalamic related:** chronic illness (DM, RA), sever stress.

2) **Pituitary related**: prolactinemia

3) **Gynecological related** :

- Pregnancy related, ectopic pregnancy, abortion.
- Hormonal contraception: break through bleeding.
- Trauma (post coital bleeding
- Outflow tract related : IUD
- Cervical CA / Endometrial CA
- Endometriosis, adenomyosis
- Fibroid
- Asherman's syndrome / Pelvic adhesions
- Ovarian cyst
- cervical stenosis

Management:

1) Correction of Anemia if present
2) Treating the underlying organic cause if present

If there is No underlying organic cause then we have **DUB**, So the treatment will be:

Pharmacological

- ☒ Hormonal : COCPs/IUS
- ☒ Non-Hormonal : Mefenamic acid / Tranexamic Acid

Surgical (in females > 40 year)

- ☒ D & C
- ☒ Ovaries ablation by radiotherapy
- ☒ Endometrial ablation by laser
- ☒ Hysterectomy

Dysfunctional Uterine Bleeding [DUB]): is irregular uterine bleeding that occurs in the absence of recognizable pelvic pathology, general medical disease, or pregnancy

"حين نتأمل أوجاعنا نعرف أن أسوأ ما حدث كان من الناس، وأجمل ما حدث كان من الله."

Pelvic pain

A female come to you with pelvic pain, take a full history.
Her you will find most important points.

History Taking:

Patient profile
Name, age, occupation, residency,
Gravda and Para, LMP
blood group (Rh +/-).

Chief compliant
the patient usually comes to you complain of lower abdominal pain. Ask about duration to know if it acute or chronic

History of Presenting illness
Ask about the pain SOCRATES

Site: unilateral vs. bilateral (bilateral --PID / unilateral -- ectopic, torsion, rupture)

Onset: sudden (torsion) OR gradual

Character: cramping -- dysmenorrhea / ache -- fibroid /sharp – rupture

Radiation: low back & buttocks – uterus OR cervix /medial aspect of thigh – ovaries OR tubes / rectum OR perineum – endometriosis.

Associated symptoms:
- fever (PID, rupture)
- nausea and vomiting (torsion, PID)
- vaginal discharge – (PID)
- vaginal bleeding (fibroid, PID, ectopic pregnancy)

Timing: if associated with menses or not (primary/ secondary dysmanorrhea)
- if it comes with intercourse this is dyspareunia (ovarian cyst, endometriosis)
- if it comes between menses “midcycle pain” (Mittelschmerz)

Exacerbating and reliving symptoms

Severity: out of 10 (very sever – torsion)

Ask about pressure symptoms (constipation, urgency, frequency)
fibroids

Ask about arthralgia? PID

Ask about urinary symptoms “dysuria, gross Haematuria, frequency”
UTI

Ask about history of STD

Gynecological history

Obstetric history

Past surgical history

ask about past pelvic surgeries or other surgeries

Past medical history

history of recurrent UTI
current medication
allergies

Family history

Social history

ask about smoking and alcohol

Investigation

- **CBC:** sensitive indicators of inflammation or infection
- Urinalysis and urine culture
- Ultrasonography
- MRI

Differential diagnosis:

- Adenomyosis;
- degenerating uterine fibroid
- ectopic pregnancy
- endometriosis
- mittelschmerz
- ovarian torsion
- pelvic inflammatory disease
- ruptured ovarian cyst
- tubo-ovarian abscess
- Cystitis
- pyelonephritis

"إن الليل والنهار يعملان فيك فاعمل فيهما"

PelviAbdominal Mass

It is important to have a systematic approach for assessment in order not to miss a patient with a potentially dangerous condition.

Note: you will Take Full Hx as usual, but the written down are the most important that you must ask about.

History Taking :

Ptn profile :
Age (Very Important!)

HOPI :
- Onset/duration : When did you notice the mass? And for how long?!

- Where is the mass located?

-Does it come and go?
-If associated with pain? Analyze it if present! (SOCRATES)

-Rate of the Growth (if grow faster more likely to be malignant)

-Has the mass changed in size or position? Has it become more or less painful?
-If it's related to menstrual cycle?!

-What other symptoms do you have?

- Increased abdominal circumference?

-Any Change in Bowel habits (constipation/Bloating)

- Urological symptoms: Frequency, urgency, recurrent urinary tract infection (UTI), retention of urine?

-Genital symptoms such as: abnormal vaginal bleeding, amenorrhea, dysmenorrhea or increased vaginal discharge?

*-Pallor , anorexia , weight loss , Fever (constitutional symptoms of malignancy)?

Investigations :

-After taking detailed Hx , perform Abdominal Exam and Full Pelvic Exam (Speculum /bimanual and rectovaginal Exam) ,

-Full blood tests(CBC/BUN/creatinine/LFT such as: Albumin-INR-PTT/serum Amylase/ total bilirubin)
-Tumor markers (CA-125/CEA/HCG/a-fetoprotein) LDH

-Pregnancy test

-Imaging (Ultrasound scans of the abdomen and pelvis /CT scan/X ray / barium Enema / nuclear Imaging).

-Sometimes, laparotomy or laparoscopy will be necessary to make the diagnosis.!!

Treatment :

Management of each condition is according to the cause .

Differential diagnosis of PeviAbdominal Mass :

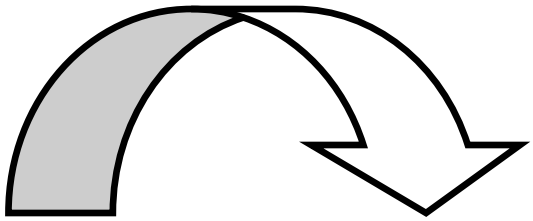
Gastrointestinal (for example, cholecystitis, crohn's disease , colon cancer ,diverticulitis , liver enlargement , liver cancer , pancreatic Abcess , pancreatic pseudocyst ,stomach cancer , spleen enlargement , volvulus ,Appendicular Abscess , obstructed hernia)

Genitourinary (Bladder distension , hydronephrosis , kidney cancer , Uterine Fibroid , Advanced uterine cancer or sarcoma, Endometriosis, hematometra , pyometra , Hydro-/pyosalpinx, Tubo-Ovarian Abscess , Ovarian Cyst , ovarian Cancer)

Pregnancy associated conditions (Normal Intrauterine pregnancy / Ectopic pregnancy - specially Abdominal Pregnancy !!)

Abdominal Aortic Aneurysm, Neurobastoma , lymphoma … etc .

you should consider every
woman of reproductive age with a pelvic mass as
pregnant in order not to miss an ectopic pregnancy!!!



Always a pregnancy test in any woman of reproductive age!!

هبّ لي حناناً من لدنك و ضُمّني في كنف الحياة،ربِّ إني متعب!

Pelvic organ Prolapse

Patient Profile:

Name, age, occupation, residency, marital status

Gravida and **Parity**, LMP

blood group (Rh +/-).

Chief Complaint:

Patient comes with either:

1- Heaviness in vagina
2- Mass protruding from vagina (Rectocele , Cystocele , Uterine prolapse)
3- Urinary incontinence

> **#Procidentia** : From the Latin *procidere* - to fall forward. "prolapse".
>
> Some gynecologists use the term procidentia to refer to the **3rd degree of uterine prolapse only.**

H.O.P.I:

**** History of lump ****

- Onset (if related to recent delivery or menopause)
-Duration
-Always present or not?
-Aggravating factor? like long term standing or sitting , appearing at the end of day or after heavy lifting or " anything cause increase intra-abdominal pressure "
-Relieving factor like lying down .
-Associated symptoms: back pain, and in ***procidentia*** ask about: purulent or blood stained vaginal discharge. ?! Due to vaginal dryness/irritation and even ulceration!

****Urinary symptoms* → If with bladder prolapse!***

-daytime frequency or Urgency
-Nocturia
-leakage of urine while laughing/sneezing or coughing. (stress Incontinence)
-Dysuria + hematuria + fever (recurrent UTI).
- hesitancy, straining to void , urinary retention , incomplete

voiding (due to urethral kinking / obstruction)
-Inability to empty bladder & patient needs to reduce the mass manually (by putting her finger in vagina) to empty bladder.

***Bowel symptoms* → If with Rectal pralpse!**

-Constipation
-painful defecation
-Incomplete rectal evacuation & patient needs to reduce mass manually to empty rectum.
-Fecal incontinence

Risk factor

Ask about:
-Multi-parity "NVD"/ no space between pregnancies/ prolonged labours/Maximum birth weight .
-Increase intra-abdominal pressure "chronic cough due to asthma, COPD"
- Chronic constipation
-Carrying heavy objects
-Pelvic surgeries
-Menopause

You Should Ask about Impact on **Sexual activity:** **(very Imp.)**
Embarassing?
Painful (dysparunia)?
Lack of sexual sensation / pleasure (for male & female) ?

Impact on Social Life ?

Complete the history as usual:

-Obstetric Hx, Gyne Hx, past medical Hx, Surgical Hx, drug Hx, family Hx

-Social Hx (Smoking).

Physical Examination :

Pelvic Exam :

1) External genitalia Exam : inspect the vulva with cough and straining to demonstrate the prolapse + Incontinence .

2)Speculum Exam

3)Rectal Examination: to differentiate between rectocele and enterocele.

#Anterior wall bulge : cystocele or urethrocele.
#Posterior wall bulge : rectocele or enterocele.

Investigations:

For cystocele:

-Renal US
- mid stream urine (urinalysis , culture)
- cystoscopy/urethroscopy
-urodynamim studies (Cytometry)

For rectocele:
- anoscopy/sigmeridoscopy
-BA enema

Management :

- ✓ HRT :for postmenopausal women
- ✓ Pelvic Floor Excercises if with mild symptoms .
- ✓ Conservative (Physiotherapy / Pessary)
- ✓ -Surgical treatment
- anterior colporraphy for cystocele
- posterior colporraphy for rectocele
- vaginal hysterectomy for uterine prolapsed

Differential diagnosis:

Should be investigated for

cystocele, urethrocele:

- Urethral diverticula's
- Skene gland abscess

For rectocele:

- Obstructive lesion of colon &rectum (lipomas, sarcomas,fibromes)

For uterine prolepses

- Cervical elongation
- Prolapsed cervical polyp or cervical
- Lower uterine segment fibroids

"إذا كان وجه محبوبك شبرًا في شبر،

فأين أنتَ من وجه الله الذي يتجلّى إلى محبوبهِ في كل الموجودات؟"

Urinary Incontinence

Chief Complaint:

Patient comes with either:

4- Heaviness in vagina
5- Mass protruding from vagina (Rectocele , Cystocele , Uterine prolapse)
6- Urinary incontinence
7- Etc……

Signs and symptoms

Types of urinary incontinence

- Stress: Urine leakage associated with increased abdominal pressure from laughing, sneezing, coughing, climbing stairs, or other physical stressors on the abdominal cavity and, thus, the bladder
- Urge: Involuntary leakage accompanied by or immediately preceded by urgency
- Mixed: A combination of stress and urge incontinence, marked by involuntary leakage associated with urgency and also with exertion, effort, sneezing, or coughing
- Functional: The inability to hold urine due to reasons other than neuro-urologic and lower urinary tract dysfunction (eg, delirium, psychiatric disorders, urinary infection, impaired mobility)

What to ask about?

- **Severity**
- **quantity** of urine lost
- **frequency** of incontinence episodes
- **Duration of the complaint** and whether problems have been worsening
- **Triggering factors or events** (eg, cough, sneeze, lifting, bending, feeling of urgency, sound of running water, sexual activity/orgasm)
- **Constant versus intermittent** urine loss and provocation by minimal increases in intra-abdominal pressure, such as movement, changes in position, and incontinence with an empty bladder

- **Associated** frequency, urgency, dysuria, pain with a full bladder, and history of urinary tract infections (UTIs)
- **Concomitant** symptoms of fecal incontinence or pelvic organ prolapse
- **Coexistent** complicating or exacerbating medical problems
- **Obstetrical history**, including difficult deliveries, grand multiparity, forceps use, obstetrical lacerations, and large babies
- **History of pelvic surgery**, especially prior incontinence procedures, hysterectomy, or pelvic floor reconstructive procedures
- **Other urologic procedures**
- **Spinal and CNS surgery**
- **Lifestyle issues,** such as smoking, alcohol or caffeine abuse, and occupational and recreational factors causing severe or repetitive increases in intra-abdominal pressure
- ***Medications** that may be associated with urinary incontinence include the following:

- Cholinergic or anticholinergic drugs ,Alpha-blockers ,Over-the-counter allergy medications ,Estrogen replacement, Beta-mimetics, Sedatives ,Muscle relaxants ,Diuretics ,Angiotensin-converting enzyme (ACE) inhibitors

Relevant complicating or exacerbating medical problems may include the following:

- Chronic cough ,Chronic obstructive pulmonary disease (COPD) ,Congestive heart failure ,Diabetes mellitus ,Obesity ,Connective tissue disorders ,Postmenopausal hypoestrogenism ,CNS or spinal cord disorders ,Chronic UTIs ,Urinary tract stones ,Benign prostatic hyperplasia ,Cancer of pelvic organs

Transient causes

The mnemonic **DIAPPERS** is a good way to remember most of the reversible causes of

- **D**: Delirium or acute confusion
- **I** : Infection (symptomatic UTI)
- **A**: Atrophic vaginitis or urethritis
- **P**: Pharmaceutical agents
- **P**: Psychological disorders (depression, behavioral disturbances)
- **E**: Excess urine output (due to excess fluid intake, alcoholic or caffeinated beverages, diuretics, peripheral edema, congestive heart failure, or metabolic disorders such as hyperglycemia or hypercalcemia)
- **R**: Restricted mobility (limits ability to reach a bathroom in time)
- **S**: Stool impaction

Differential Diagnoses

- **Cystitis in Females**
- **Multiple Sclerosis**
- **Prostatitis**
- **Spinal Cord Neoplasms**
- **Spinal Cord Trauma and Related Diseases**
- **Spinal Epidural Abscess**
- **Urinary Obstruction**
- **Urinary Tract Infection in Males**
- **Uterine Prolapse in Emergency Medicine**
- **Vaginitis**

ولم أرَ في عيوب الناس شيئاً *** كنقص القادرين على التمام

Infertility

Infertility is defined as the inability to conceive after one your of unprotected sexual intercourse.

Primary infertility: a couple has never conceived before.

Secondary Infertility: a couple has conceived before but has failed in subsequent trials.

History:

Patient profile (name, age, occupation, gravida and para, blood group)

- Age: after the age of 35 the ovarian reserve start to decline fast and quality of the follicles declines as well.
- Occupation: exposure to radiation can adversely affect fertility in both males and females.
- Marital status: single women or same sex relationships (two women) will require sperm donation and undergo either **I**ntra **U**terine **I**nsemination (IUI) and/or IVF/ICSI (Intracytoplasmic Sperm Injection).
- G&P: If she had conceived before then she has secondary infertility.

Ask about symptoms of PCOS:

- Amenorrhea/ Oligomenorrhea
- Obesity
- Male hair growth pattern (due to hyperandrogenism)
- Glucose intolerance

Ask about the frequency of intercourse:

- Unprotected sexual intercourse 3 times a week optimizes the chance of conception.
- Fecundity: the probablility of conceiving within one menstrual cycle (25%).

Ask about prolactinoma:

- Amenorrhea or irregular cycle.
- Galactorrhea.
- Visual disturbance. (If it compresses the optic chiasma in case of macro adenoma).

Symptoms of Hypothyroidism.
Cold intolerance, weight gain, bradycardia, Fatigue, constipation, impaired memory.

Smoking. (adversely affects fertility in both men and women)

Anorexia, low body weight or excessive exercise.(BMI< 19 associated with anovulation.)

Ask about drug use:

- NSAIDs can inhibit ovulation.
- Chemotherapy can damage male and female gonads
- Cimetidine, sulphalazine and androgen injections. (affects sperm quality)

Ask about previous sexual history and partners.

Ask about previous sexually transmitted infections like Chlamydia and gonorrhea. (These may cause pelvic inflammatory disease leading to adhesions in the tubes).

Ask for previous investigations done like pap smear or hysteroscopy.

(Hysteroscopy may reveal uterine abnormality)

Ask about previous procedures:

- D&C (may cause ashermans syndrome)
- Tubal ligation

Ask about male partner:

- If he had mumps infection.
- If he was treated with chemotherapeutic agents for malignancy.
- If surgery was done to testicles like testicular torsion, varicocele, testicular malignancy.
- If he has sexual dysfunction.

Ask about gynecologic history:

- Age of menarche.
- Regularity of menstrual cycles.
- Amount of blood lost, clots and NO. Of pads used.
- Intermenstrual bleeding.
- Use of contraception.

Family history, ask if any of her sisters or mother had the same problem.

Social history:

- Place of living.
- Alcohol consumption
- Illicit drug use.
- Smoking. (also ask about passive smoking)

Physical examination:

Look for signs of PCOS and hirsutism:

- Acne.
- Acanthosis nigricans.
- Obesity.
- Male patern hair growth.

Bimanual pelvic exam.

Steps of Workup:

Steps	Diagnosis	Management
1. Semen Analysis	Normal values: • Volume >2mL • PH 7.2-7.8 • Sperm Density >20 million/ml • Sperm Motility >50% • Sperm Morphology >50% normal	• If values are abnormal, repeat the semen analysis in 4-6 weeks • Abnormal semen analysis: IUI, ICSI and IVF are options. • No viable sperm: Artificial insemination by donor sperm.
2. Anovuation	• Basal body temperature chart: NO mid cycle temperature change. • Progesterone: low. • Endometrial biopsy: proliferative changes.	• Hypothyroidism or Hyperprolactenima are causes of anovulation. • Ovulation induction: o Clomiphene citrate. o hMG if clomiphene fails. o Most common side effect: ovarian hyper stimulation. Monitor ovarian size during induction.
3. Tube abnormalities: HSG & Laparoscopy.	• Chlamydia Antibody: -ve IgG antibody test R/O infection-induced tubal adhesions.	• HSG: no further test is done if normal anatomy. • Laparoscopy: performed with an abnormal HSG to visualize the tubes and attempt reconstruction (tuboplasty). If tubal damage is sever, IVF should be planned.

This table is taken from **Master the Boards** by Conrad Fischer.

Leopold's Maneuvers

Leopold's Maneuvers are a common and systematic way to determine the position of a fetus inside the woman's uterus; they are named after the gynecologist Christian Gerhard Leopold.

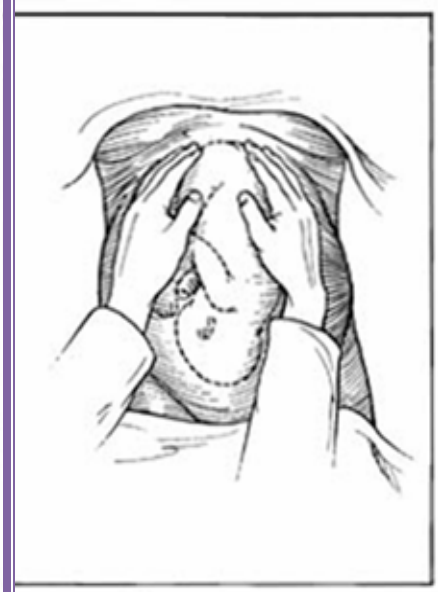
The maneuvers consist of four distinct actions, each helping to determine the position of the fetus. The maneuvers are important because they help determine the position and presentation of the fetus, which in conjunction with correct assessment of the shape of the maternal pelvis can indicate whether the delivery is going to be complicated, or whether a Cesarean section is necessary.

Leopold's Maneuvers are difficult to perform on:

1) Obese women

2) Women who have polyhydramnios

To aid in this, the health care provider should first ensure that the woman has recently emptied her bladder.



First maneuver

First maneuver: Fundal Grip

While facing the woman, palpate the woman's upper abdomen with both hands.

Findings:

1) *The level of uterine fundus and GA*

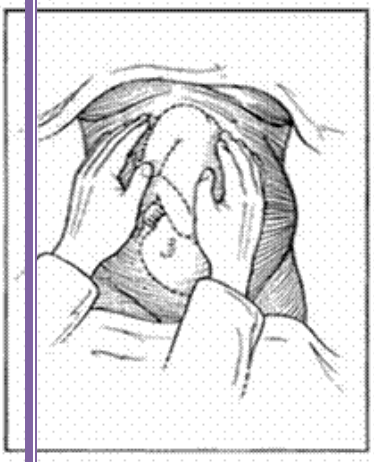
2) which part of fetus occupying the fundus ?

The fetal head is hard, firm, round, and moves independently of the trunk

Ball table

the buttocks feel softer, are symmetric,

shoulders and limbs have small bony processes; unlike the head, they move with the trunk..



Second maneuver

Second maneuver: Lateral Grip

Attempts to determine the location of the fetal back. Still facing the woman.

Both hands are placed on the lateral surfaces of uterus at the level of umbilicus .First the right hand remains steady on one side of the abdomen while the left hand explores the right side of the woman's uterus. This is then repeated using the opposite side and hands.

Findings :

1) lie (longitudinal, transverse, oplique)

2)position

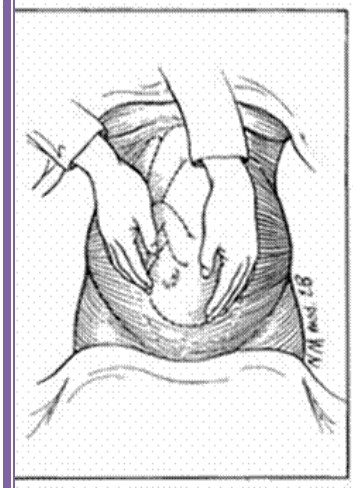
3)uterine tone

4) *quantity of amniotic fluid*

5) fetal movement

The fetal back will feel firm and smooth

fetal extremities (arms, legs, etc.) should feel like small irregularities and protrusions.



Fourth maneuver

Third maneuver: Pawlick's Grip(1st pelvic grip)

Attempts to determine what fetal part is lying above the inlet, or lower abdomen.

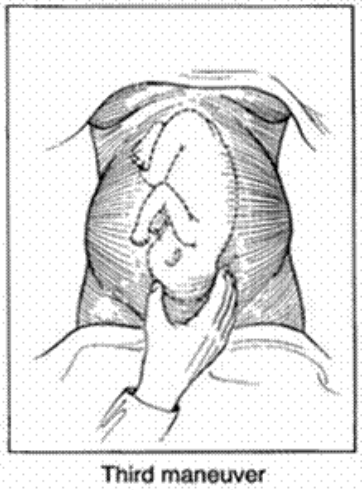
First by right hand grasps the lower portion of the abdomen just above the pubic symphysis with the thumb and fingers of the

Findings :

We can determine :

1)The presented part (cephalic ? breech ? shoulder ? ..)

2) Station .



Third maneuver

Fourth maneuver: 2nd Pelvic Grip

A doctor is standing towards patient's feet. The fingers of both hands are located on the lateral surfaces of lower uterine segment and carefully try to insert the fingers between presented part and pelvic inlet.

Findings :

We can determine :

1)The presented part

2) Station .

If the head of the fetus is well-flexed, it should be on the opposite side from the fetal back. If the fetal head is extended though, the occiput is instead felt and is located on the same side as the back.

You should Know that Leopold maneuvers are part of the (Palpation step) in pregnant Abdominal Examination:

Basic Steps

- Introduce yourself / clarify the patient's identity.

- Wash your hands

- Explain what you would like to do and gain her consent.

- Ensure privacy and check light

- Position: She should lie with her head on a low pillow.

Note: Examine women in late pregnancy in the left lateral position, 15° to the horizontal, to avoid vena caval compression, which can cause hypotension for the mother and hypoxia for the fetus.

- Exposure: abdomen exposed from the symphysis pubis to the xiphisternum.

-Try and put mum at ease. A few simple but friendly questions to help her gain your trust includes:

- "how are you feeling?"
- "do you know what you are having?"
- "is this your first pregnancy?"

This shows the examiner that you can be caring, rather than jumping in hands first ☺

-**Perform a general inspection**:
Comfortable?
Head and neck: cholasma , Juandice , Facial edema?
Legs and feet: swelling, edema, varicose veins?

-Measure blood pressure (It's very Important and has it's own mark on check list/OSCE)

-**Abdominal Inspection**:
1-distension (Note the swelling of the uterus arising from the pelvis and any other
swellings.)
2-Fetal movement
3-Scars (particularly from previous caesarean section)
4-Skin changes (linea nigra/ stria Gravidarum)
5-cough for hernia

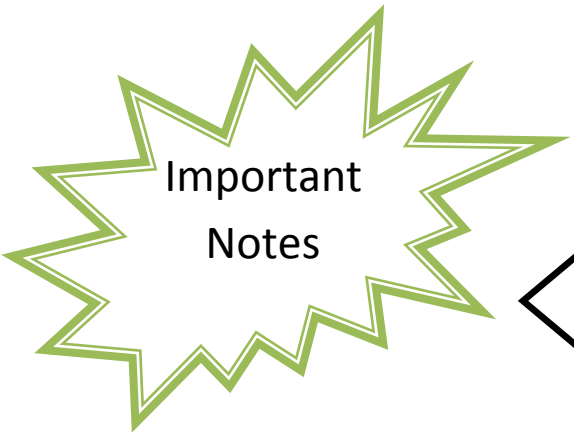
-Measure fundal height:
After 20 weeks measure the SFH in centimetres. With a tape measure.
fix the end at the highest point on the fundus (not always in the midline) and measure to the top of the symphysis pubis.

The length in centimetres roughly corresponds to how far along she is in weeks; i.e. 36cm roughly equals 36 week…etc.

-Abdominal palpation:
Ask if there's any pain and watch the mother's face!
Start by superficial palpation all around abdomen then jump to Leopold maneuvers as we learn above ;)

-Auscultating the baby's heart:
This is best heard over the baby's shoulder. If you have correctly identified the lie you should roughly know where this is. Put either your Doppler ultrasound or

Pinard stethoscope over this area and listen. The baby's heart rate should be between 110-160bpm (ensure you are not incorrectly hearing the transmission of mum's, remember her's will be slower).



Do not perform a routine full physical examination (including breast and vaginal examination) in healthy pregnant women.
BUT,
fully examine any woman with poor general health.

Percussion of the pregnant abdomen is unnecessary.

Do not perform a vaginal examination routinely in pregnancy unless there is a specific indication.

"حتى اللاّ شيء الذي يحدث في اليوم نعمة تستحق الحمد، كان بمقدور السوء أن يحلّ مكانه، لكن الله رحيمٌ جداً." ☺

Gynecological and obstetrics Instruments

تولني يا الله إذا خَطوْت ،إذا دعَوْت ،إذا تُهت وعُدت..
إذا ما فطَر قلبي أحد وتغمدتني الوِحدة..
تولّني في الحياة وفي الموت :َ")

Hegar's Dilator/ Das's dilator

Uterine sound

Its a long instrument with blunt tip (To avoid perforation)

The angle helps to negotiate **curvature of the uterus** (Anteflexion).

It is used for **measuring uterocervical length , length of the cervix** ,To feel for any pathology inside the cavity like fibroid (Sub mucus, polyp) Congenital anomalies like septa or bicornuate ut., Adhesions. To feel for the misplaced IUCD.

Uterine Curette

Flushing curette

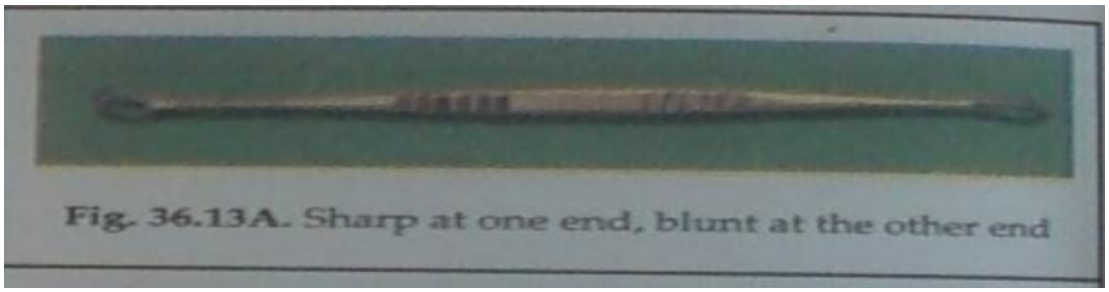


Fig. 36.13A. Sharp at one end, blunt at the other end

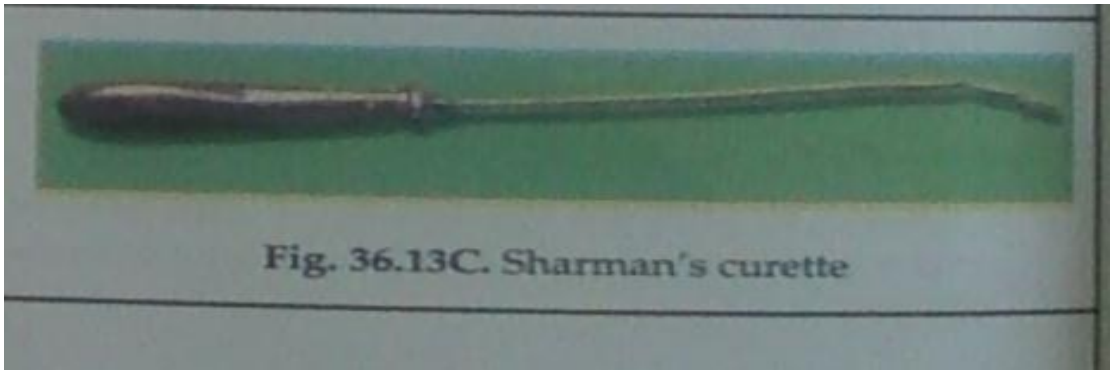
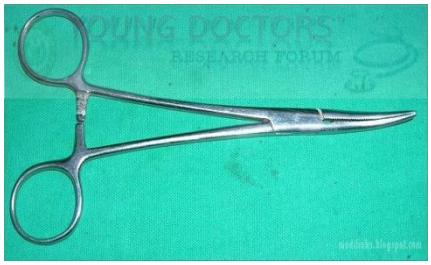


Fig. 36.13C. Sharman's curette

Use for scraping endometrial cavity to obtain sample for histopathology.

Artery forceps

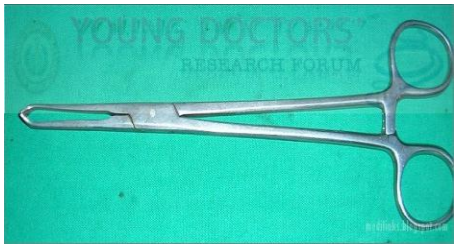


1) It can be used as a hemostat used for clamping bleeding vessels during haemorrhage.

2) grasping tissue at the time of operation(Opening and closing peritoneum) .

3) It is also used to hold stay sutures.

Allis' Forceps



This instrument is used for grasping tough structures like Rectus sheath or fascia in operations like tubectomy, LSCS (lower segment caesarean section) ,abdominal hysterectomy.

Ayre's Spatula

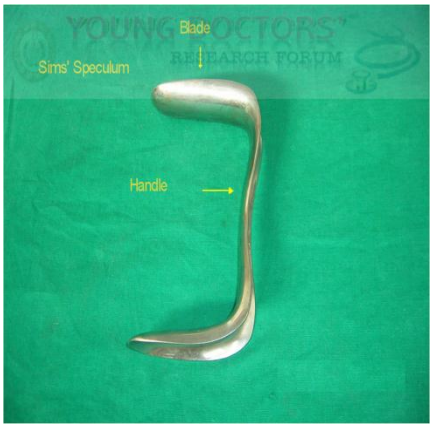
Is Used for taking Pap Smear for screening of carcinoma cervix.

Cusco's Speculum (Duck's Speculum)

Used for routine examination. Because of limited opening only few procedures like taking of Pap smear, insertion and removal of Copper T can be done

Wider area for inspection

Sims' Speculum



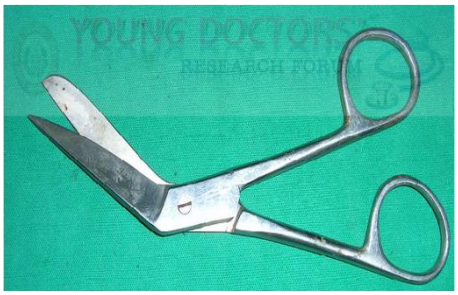
Sims Speculum is used for inspection of vagina and cervix in.
1)Used in Gynae OPD for following procedures : Taking Pap Smear , Insertion and removal of Copper T , Colposcopy ,Taking swabs, (HSG).
2)Used in Gynae Operations : D&C , Cervix Biopsy , Vaginal Hysterectomy , Repair of Vesico vaginal fistula, Hysteroscopy. 3) Use in Obstetrics : For inspection (Bluish discoloration in early pregnancy, local cause for threatened abortion, local cause in APH.

Curved mayo scissors

Straight mayo scissors

Bonney scissors

Metzenbaum scissors

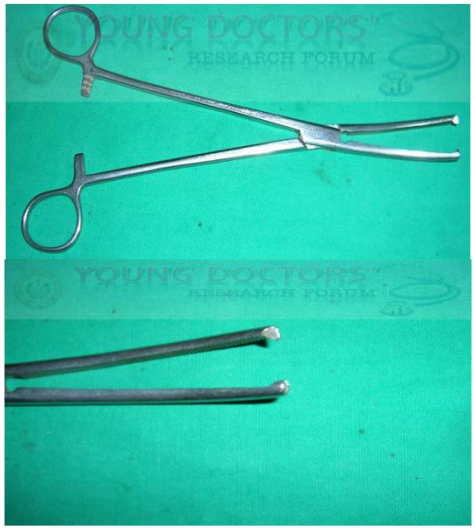


Episiotomy Scissors/ perineorrhaphy

Dissecting forceps (toothed)

Dissecting forceps (non toothed)

Kocher's Forceps (Clamp)



1)This instrument is used for holding fallopian tube in hysterectomy.

2)for salpingectomy in ectopic or oophorectomy in ovarian mass.

Ovum Holding Forceps

This instrument is used for removing the products of conception in inevitable, incomplete abortion and in MTP operations

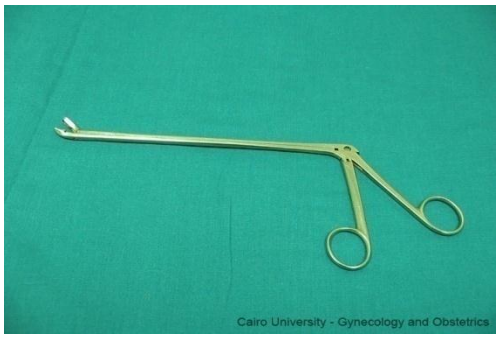
Suction Curette

This instrument is used for first trimester MTP, suction of vesicular mole.

Shirodkars Cerclage Needle

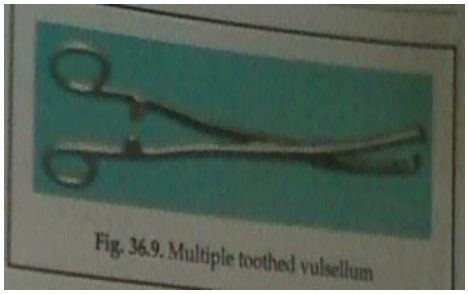
This is specially designed needle for putting stitch around the cervix.

Punch biopsy forceps



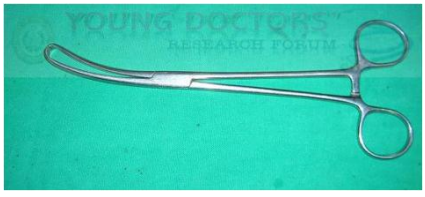
To take biopsy from the cervix.

Multiple toothed Vulsellum



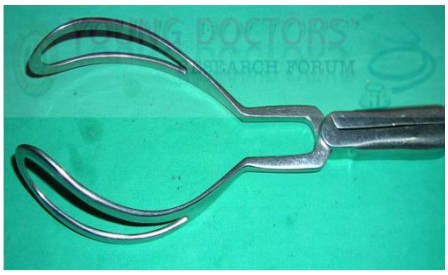
This instrument is used for grasping the cervix, in procedures like **Insertion of IUCD , Cx Biopsy D&C, First trimester MTP with Suction Evacuation. Cx Biopsy , Fothergills operation, Vaginal Hysterectomy**

Single toothed Vulsellum



To hold the cervix after opening the vault of vagina and to give traction while the remaining vault is being cut in total abdominal hysterectomy

Wrigley's Forceps



Obstetric forceps for out let forceps delivery

Simson's Short forceps is straight forceps with only cephalic curve and no pelvic curve

Simpson

Piper

Kieland

Vaccum Extractor (Vantouse) - Sialastic Cup/

Metallic cup

Alternative to forceps delivery

Can be used when rotation is not complete.

Produces artificial caput called chignon.

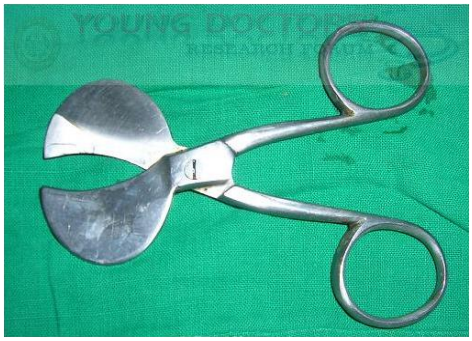
Not to be used in pre term

Pinard's Fetal Stethoscope

This is used for auscultation of fetal heart

Now rare used!

Umbilical Cord Cutting Scissors



Umbilical Cord Clamp

The End!

Good luck

☺