

1. True statement regarding CIN-I is/are?

a) Associated with HPV-16

b) Occurs at squamo-columnar junction of cervix

c) Dysplasia involves 2/3rd of the thickness of the epithelium

d) It is kept under observation with PAP smear or HPV DNA tests

e) Disappears spontaneously in 60% percentage of females in 1-2 years

Correct Answer - A:B:D:E

Ans. is 'a' i.e., Associated with HPV-16, 'b' i.e., Occurs at squamo-columnar junction of cervix, 'd' i.e., It is kept under observation with PAP smear or HPV DNA tests & 'e' i.e., Disappears spontaneously in 60% percentage of females in 1-2 years

Cervical intraepithelial neoplasia (CIN) (cervical dysplasia)

CIN refers to the potentially premalignant transformation of cells of the cervix.

Site:

- Squamo-columnar junction (SCI) of the cervix (most common), vaginal walls and vulvar epithelium.

Etiology:

- Chronic Human papilloma virus (HPV): high risk type of HPV are 16, 18, 31, or 33

Risk factors:

- Immunodeficiency
- Women who give birth before age 17/ are sexually active before age 18
- Poor diet, multiple sexual partners, lack of condom use, and

cigarette smoking

Diagnosis:

- Pap smear (abnormal cells)
- Next step :colposcopy
- Biopsy
- DNA test (To detect high risk HPV)

Treatment:

CIN 1:

- No treatment required
- Left untreated, about 60-70% of CIN-1 will regress within one year, and 90% will regress within two years

Higher-grade CIN:

- Cryocautery, electrocautery, laser cautery, loop electrical excision procedure (LEEP), or cervical conization.

Simple hysterectomy (abdominal/vaginal):

- CIN persists or does not improve after other procedures
- If family is complete
- Associated prolapse or fibroid or when the patient is not ready for regular follow-up.

2. Treatment of cervical incompetence includes?

a) Shirodkar's stitch

b) Mc donald's stitch

c) B lynch stitch

d) Fothergills operation

e) Sling operation

Correct Answer - A:B

Ans. is 'a' i.e., Shirodkar's stitch & 'b' i.e., Mcdonald's stitch

TREATMENT OF CERVICAL INCOMPETENCY:

Surgical:

Transvaginal techniques

- McDonald cerclage: purse-string suture that passes through the cervical stroma
- Shirodkar cerclage :requires dissection of the bladder anteriorly and the rectum posteriorly in order to place the stitch at the level of the internal os.
- Transabdominal cerclage (Benson & Durfee cerclage): Indicated in
 - Anatomic limitations (eg, after trachelectomy)
 - Congenital short cervix
 - History of failure of a transvaginal cerclage.
 - Incompetent cervix.

About other options

- .. B lynch stitch – compression sutures to control PPH
- ?. Fothergills operation – surgical treatment of uterine prolapse
- }. Sling operation – synthetic tapes used to support uterus in 2nd **and**

3rd degree uterine prolapse

3. Indications of Karyotyping include?

a) Recurrent abortions

b) Multiple malformations in child

c) Delayed puberty

d) Advanced maternal age

e) All of the above

Correct Answer - E

Ans. is 'e' i.e., All of the above

INDICATIONS FOR KARYOTYPING:

Prenatal period:

- Advanced maternal age
- Balanced chromosomal rearrangement (translocation, inversion) or not (marker, mosaicism, sexual aneuploidy) in one of the parents
- Previous pregnancy with an abnormal chromosomal complement
- Previous stillbirth with an abnormal chromosomal complement
- Abnormal maternal serological screening test
- Abnormal foetal ultrasound
- Risk of an unstable chromosomal syndrome

Perinatal Period:

- In a still birth

Postnatal Period:

- Confirmation of clinical Analysis
- Ambiguous genitalia
- Congenital dysmorphic syndromes and /or Malformations and/or neurological deficit
- Pseudohermaphroditism (male /female)
- Gonadal dysgenesis

- True hermaphrodite
 - **Childhood & adolescence:**
 - Developmental delay (array testing preferred)
 - Delayed puberty or inappropriate secondary sexual development
 - Psycho motor retardation (fragile X, Klinefelter)
 - Dysmorphism with visceral anomalies undetected during infancy
 - Unexplained short stature (Turner)
 - Hypogonadism (Klinefelter, Turner).
 - Chromosome breakage syndromes: ataxia telangiectasia, Bloom syndrome, Fanconi anaemia and Nijmegen breakage syndrome.
 - **Adult:**
 - History of pregnancy loss
 - Parents of a child with a chromosomal disorder
 - Infertility/Sterility workup once gynecological or endocrine causes have been ruled out (Klinefelter, Turner).
 - Testicular feminization syndrome

4. TRUE statement regarding pre-natal aneuploidy screening is?

a) AFP is tested in Down syndrome

b) Nuchal translucency is seen at 10-12 weeks

c) Anomaly scan is done at 12-16 weeks

d) Triple marker test is done at 15 - 22 weeks

e) Quadruple marker test is done at 10- 12 weeks

Correct Answer - A:B:D

Ans. is 'a' i.e., AFP is tested in Down syndrome, 'b' i.e., Nuchal translucency is seen at 10-12 weeks & 'd' i.e., Triple marker test is done at 15 — 22 weeks

Screening methods to detect aneuploidy:

- Combinations of first-trimester and second-trimester screening yield Down syndrome detection rates as high as 90 to 95%. First trimester screening (11-14 weeks)

Combined first trimester screening:

- PAPP(Pregnancy associated plasma protein -A) at 9 weeks

Nuchal translucency (NT):

- 11-13 weeks
- Marker for Down syndrome
- Serum hCG at 12 weeks
- In cases of fetal Down syndrome: Serum free Beta-hCG level is higher approximately 2.0 MoM and the PAPP-A level is lower, approximately 0.5 MoM.
- With trisomy 18 and trisomy 13, levels of both analytes are lower.

Second trimester screening (15-22 weeks)

- 15 weeks & 22 weeks
- MSAFP: low level are found in down syndrome

Triple test:

- Includes MSAFP, hCG& uE3 (unconjugated estriol).
- Detection of down syndrome.
- In an affected pregnancy, levels of MSAFP & uE3 tend to low while that of hCG is high

Quadruple (Quad) screening:

- MSAFP, hCG, uE3 & dimeric inhibin -A.
- Detect trisomy 21 in 85% cases.
- Level of serum analytes in cases with trisomy 21: MSAFP -reduced, hCG-increased, uE3-reduced& dimeric inhibinA-elevated.

Anomaly scan

- Anatomy scan, 18-22 weeks ultrasound, or level 2 ultrasound)

Includes:

- Fetal number, including number of amniotic sacs and chorionic sacs for multiple gestations
- Fetal cardiac activity
- Fetal position relative to the uterus and cervix
- Location and appearance of the placenta, including site of umbilical cord insertion when possible
- Amniotic fluid volume
- Gestational age assessment
- Fetal weight estimation
- Fetal anatomical survey
- Evaluation of the maternal uterus, tubes, ovaries, and surrounding structures when appropriate

5. A female with IUCD develops pelvic inflammatory disease. which of the following should be done:

a) Keep the IUCD, give antibiotic, follow up for antibiotic response & then take decision regarding IUCD removal

b) Start antibiotic & remove IUCD

c) Remove IUCD & start antibiotic

d) Wait for next menstrual cycle for any intervention

e) Do nothing

Correct Answer - A

Ans. is 'a' i.e., Keep the IUCD, give antibiotic, follow up for antibiotic response & then take decision regarding IUCD removal

- If an IUD user receives a diagnosis of PID, the IUD does not need to be removed. However, the woman should receive treatment according to these recommendations and should have close clinical follow-up no clinical improvement occurs within 48-72 hours of initiating treatment, providers should consider removing the IUD.
- PID treatment regimens must provide empiric, broad spectrum antibiotic coverage of likely pathogens

6. Best predictors of estimation of gestational age is/are?

a) Biparietal diameter at age of 18 weeks

b) Crown rump length at age of 7-10 weeks

c) Crown rump length at age of 11-14 weeks

d) Gestational sac diameter at 5-6 weeks

e) Crown rump length at age of 14-18 weeks

Correct Answer - A:B:D

Ans. is 'a' i.e., Biparietal diameter at age of 18 weeks, 'b' i.e., Crown rump length at age of 7-10 weeks & 'd' i.e., Gestational sac diameter at 5-6 weeks

FIRST TRIMESTER

Fetal anatomy and viability:

Mean Sac Diameter (MSD)

5–8 mm

12 mm

15–18 mm

Embryo CRL > 4 mm

Findings

Yolk sac

Embryo

Cardiac activity

Cardiac activity

Gestational age and Embryonic Structures:

Menstrual Age

4 weeks

5 weeks

6 weeks

7 weeks

Fetal Structures

Choriodecidual thickness,?
chorionic sac

Gestation sac, embryo yolk sac

Fetal pole, cardiac activity

Lower limb buds, midgut?
herniation (physiological)

8 weeks

Upper limb buds, stomach

9 weeks

Spine, choroid plexus

SECOND TRIMESTER

Fetal growth:

- Normal:10th-90th percentiles
- **Biparietal diameter (BPD):(12 week)Outer skull edge of proximal skull to inner edge on distal skull**
- Head circumference (HC)
- Abdominal circumference (AC):Measured at junction of left and right portal veins & umbilical vein
- Femur length (FL):Measured when beam from the transducer is perpendicular to the shaft
- Birthweight(**BW**)
- Hadlock formula :
 - $\log(10)BW = 1.335 - 0.0034(AC)(FL) + 0.0316(BPD) + 0.0457(AC) + 0.1623(FL)$

Gestational age assessment:

- Optimum time for most **accurate assessment :14 -20 weeks by Crown rump length**
- Transcerebellar diameter (TCD):14 weeks- 28 weeks
- Dating ultrasound done before 22 weeks should be used in preference to menstrual dates

THIRD TRIMESTER:

Estimated fetal weight (EFW) is determined from the average of three readings for:

- FL
- AC is most important.
- BPD.

7. Pregnancy is contraindicated in which heart disease?

a) Eisenmenger syndrome

b) Multi valvular disease

c) Congenital heart disease

d) Coarctation of aorta

e) Ejection fraction < 40%

Correct Answer - A:D:E

Ans. is 'a' i.e., Eisenmenger syndrome, 'd' i.e., Coarctation of aorta & 'e' i.e., Ejection fraction < 40%

Heart diseases in which pregnancy is contraindicated :

- Marfan syndrome
- Aortic disease with dilatation of > 50mm with bicuspid aortic valve.
- Coarctation of aorta
- Eisenmenger syndrome
- Severe fixed obstructive lesions (aortic stenosis, mitral stenosis, pulmonic stenosis, hypertrophic obstructive cardiomyopathy)
- NYHA class 3 & 4 heart diseases (severe systemic ventricular dysfunction/CHF)
- Ejection fraction < 30-40%
- Previous peripartum cardiomyopathy with any residual impairment of LV function
- Pulmonary arterial hypertension of any cause
- Severe cyanosis

8. True about Delivery, of HIV +ve woman -

a) Vaginal delivery has lower risk for transmission of HIV to child than CS

b) Vaginal delivery has higher risk for transmission of HIV to child than CS

c) Instrumentation has no risk of increased infection

d) Vertical transmission is less in cases with preterm birth

e) NONE

Correct Answer - B

Ans.(b) Vaginal delivery has higher risk for transmission of HIV to child than CS

- Vaginal and emergency caesarean section deliveries, prematurity, and low CD4 cell count were most strongly associated with infants infection status in univariate analyses .
 - Children delivered vaginally or by emergency caesarean section were more likely to be infected than those delivered by elective caesarean section, with a reduction in risk of 79% associated with the latter ($P < 0.001$).
 - Similarly, infants delivered before 37 weeks were more than twice as likely to be infected than infants who were not premature.
 - Caesarean section before onset of labour and rupture of membranes approximately halves the risk of mother-to-child transmission.
- Transmission rate:**
- During pregnancy: 5–10%
 - During labour and delivery: 10–15%
 - During breastfeeding: 5–20%
 - Overall without breastfeeding: 15–25%

- Overall with breastfeeding to six months:20–35%
- Overall with breastfeeding to 18–24 months:30–45%

9. True statement regarding investigation in endometrial cancer:

a) MRI is superior to CT in detecting myometrial involvement

b) CT is superior to MRI in detecting omental metastasis

c) USG is initial investigation to be performed

d) USG is the best investigation

e) None

Correct Answer - A:B:C

Ans. a. MRI is superior to CT in detecting myometrial involvement ; b. CT is superior to MRI in detecting omental metastasis and c. USG is initial investigation to be performed

Diagnosis of Endometrial Carcinoma

- "CT scan of pelvis and abdomen may be used to detect lymph node metastases" .
- MRI candetect Myocardial invasion
- Sensitivity of PET in detecting pelvic node metastases is 80% compared to MRI(70%) and CT(48%)"
- "CT is useful in the diagnosis of lymph node metastasis and depth of myometrial invasion in endometrial cancer"
- "MRI is superior to CT or ultrasound in diagnosing adenomyosis, myomas and endometrial cancer(including myometrial invasion)

10. All are true about puerperal sepsis except:

a) Temperature > 38⁰C (100.4⁰F)

b) Caesarean section has no increased risk for sepsis

c) Group A beta-hemolytic streptococcus is one of common causative organism

d) Instrument delivery increases risk

e) Retainedplacenta is a cause

Correct Answer - B

Ans.(b) Caesarean section has no increased risk for sepsis

- Puerperal pyrexia — is defined as a rise of temperature reaching 100.4° F (38° C) or more (measured orally) on 2 separate occasions at 24 hours apart (excluding first 24 hours) within first 10 days following delivery.
- Any infection of genital tract which occurs as a complication of delivery is called as Puerperal sepsis.
- Most common site of Puerperal infection — Placental site.
- Most common manifestation of Puerperal infection — Endometritis.
- Most common cause of Puerperal sepsis — Streptococcus.
- Most common route of infection — Direct spread.
- Caesarean section is easily the most common identifiable risk factor for development of puerperal infection.

11. Predisposing factor(s) for obstetrical haemorrhage is/ are:

a) Obesity

b) Placental abruption

c) Oligohydramnios

d) Smoking

e) Instrumental delivery

Correct Answer - A:B:D:E

Ans.(a) Obesity, (b) Placental abruption, (d) Smoking, (e) Instrumental delivery

Predisposing factor(s) for obstetrical haemorrhage:

Abnormal Placentation

- Placenta previa
 - Placental abruption
 - Placenta accreta/increta/percreta
 - Ectopic pregnancy
 - Hydatidiform mole
- Trauma During Labor and Delivery
- Episiotomy
 - Complicated vaginal delivery
 - Low- or mid forceps delivery
 - Cesarean delivery or hysterectomy
 - Uterine rupture-risk increased by:
 - Previously scarred uterus
 - High parity
 - Hyperstimulation

- Obstructed labor
- Intrauterine manipulation
- Mid forceps rotation
- Small Maternal Blood Volume
- Small women
- Pregnancy hypervolemia not yet maximal
- Pregnancy hypervolemia constricted
- Severe preeclampsia
- Eclampsia
- Other Factors
- Obesity
- Native American ethnicity
- Previous PPH
- Uterine Atony
- Overdistended uterus
- Large fetus
- Multiple fetuses
- Hydramnios
- Distention with clots
- Anesthesia or analgesia
- Halogenated agents
- Conduction analgesia with hypotension
- Exhausted myometrium
- Rapid labor
- Prolonged labor
- Oxytocin or prostaglandin stimulation
- Chorioamnionitis
- Previous uterine atony
- Coagulation Defects- Intensify Other Causes
- Placental abruption
- Prolonged retention of dead fetus
- Amniotic fluid embolism
- Saline-induced abortion
- Sepsis syndrome
- Severe intravascular hemolysis
- Massive transfusions
- Severe preeclampsia and eclampsia

- Congenital coagulopathies
- Anticoagulant treatment

12. Which of following is/are not fertility awareness based methods:

a) Withdrawal method

b) Rhythm method

c) Cervical mucus method

d) MTP pill

e) Sympto-thermal method

Correct Answer - A:D

Ans.(a) Withdrawal method, (d) MTP pill

All family planning methods that attempt to identify fertile time in each cycle and then modify sexual behaviour are called Fertility Awareness Based Methods (FAB)

They are as follows:

- Rhythm method/calendar method
- Basal body temperature method
- Cervical mucus method/Billing method .
- Sympto-Thermal method
- Standard days method using cycle beads
- Two day method
- Ovulation detection
- Coitus interruptus
- Lactation amenorrhoea method (LAM)
- Abstinence

13. True about anatomy of vagina :

a) Covered by columnar epithelium

b) Covered by non-keratinized stratified squamous epithelium

c) Vaginal secretion is from transudation of vaginal epithelium

d) Supplied by cervicovaginal branch of the uterine artery

e) Anterior wall is longer than posterior wall

Correct Answer - B:C:D

Ans. b. Covered by non-keratinized stratified squamous epithelium; c. Vaginal secretion is from transudation of vaginal epithelium; d. Supplied by cervicovaginal branch of the uterine artery

HISTOPATHOLOGY:

The vagina is composed of 4 histological layers (internal to external):

- Nonkeratinized stratified squamous epithelium
- Elastic lamina propria
- Fibromuscular layer
- Adventitia

BLOOD VESSEL AND NERVE SUPPLIES:

- Arterial supply to the vagina is via the uterine and vaginal arteries; both branches of the internal iliac artery.
- Venous return : vaginal venous plexus, which drains into the internal iliac veins via the uterine vein.
- Lymphatic drainage : iliac and superficial inguinal lymph nodes.
- The parasympathetic and sympathetic nerves supplying the vagina are derived from the uterovaginal nerve plexus. The uterovaginal plexus lies in the base of the broad ligament, either side of the

supravaginal part of the cervix.

- Inferior fibres from the uterovaginal plexus supply the superior part of the vagina. These are derived from the inferior hypogastric plexus and the pelvic splanchnic nerves.
- The inferior part of the vagina is innervated by a branch of the pudendal nerve called the deep perineal nerve.

14. True about amniocentesis and Chorionic villus sampling:

- a) In 1st trimester, amniocentesis is better than Chorionic villus sampling
- b) 2nd trimester amniocentesis has less foetal loss than Chorionic villus sampling
- c) Amniocentesis may result in oligohydraminos
- d) Amniocentesis in 1st trimester has lower risk of foetal loss than 2nd trimester amniocentesis
- e) Amniocentesis in 1st trimester has more risk of talipes

Correct Answer - B:C:E

Ans. b. 2nd trimester amniocentesis has less foetal loss than Chorionic villus sampling, c. Amniocentesis may result in oligohydraminos & e. Amniocentesis in 1st trimester has more risk of talipes

Advantages of CVS over amniocentesis :

- The main advantage of CVS is that, results are available earlier in pregnancy. which lessen parental anxiety when results are normal.
- Allows earlier and safer methods of pregnancy termination when results are abnormal.

CVS Risks :

- Chances of fetal loss / abortion.
- If performed earlier than 9 weeks (typically around 7 weeks), increased chances of oromandibular hypogenesis and limb reduction defects.
- It can cause rupture of membranes. leakage of amniotic fluid and

infection.

- Rh isoimmunization can occur in Rh negative females.

Complications of Amniocentesis:

- Chorioamnionitis (0.1%)
- Procedure related fetal loss
- Leakage of amniotic fluid occurs in about 2% patients, but is usually self resolving. Persistent leakage of amniotic fluid causing oligohydramnios
- Talipes equinovarus
- Vaginal bleeding (2 -3%)
- Rh isoimmunization
- Preterm labor
- Respiratory distress
- Intrauterine death (IUD)

15. Which of the following is/are true about combined oral contraceptive pills:

a) Reduces risk of venous thromboembolism

b) Reduces risk of benign breast disease

c) Protects against endometrial cancer

d) Decreased Bone density

e) None

Correct Answer - B:C

Ans.(b)Reduces risk of benign breast disease, (c) Protects against endometrial cancer

OCPs

ADVANTAGES:

- Controls fertility
- Treats Menorrhagia & polymenorrhoea.
- Relieve dysmenorrhoea and premenstrual tension
- Prevents anaemia
- Lowers chances of
 - Fibrocystic disease
 - Ovarian cyst
 - Ovarian ,uterine & anorectal malignancy
 - PID
 - Ectopic pregnancy
- Useful in acne, PCOD and endometriosis
- Prevent RA

Non contraceptive benefits of OCPs:

- Cycle stabilization

- Cure of menstrual disorder- useful in menorrhagia & polymenorrhea
- Prevents anemia.
- Reduces the incidence of ectopic pregnancy.
- Protection against cancer – Ovarian ,Endometrial
- Benign tumour - Benign breast disease, Ovarian functional cyst, Fibromyoma uterus
- Protects - PID, Anemia, Endometriosis, PCOD, Acne, hirsutism, Rheumatoid arthritis, Osteoporosis

16. A 30-year lady delivered a baby. Which of the following statement(s) is not true about postpartum contraception:

a) OCP is not given because it can causes venous thrombosis & have adverse impact on milk production

b) POP is contraceptive of choice for lactating women

c) POP should be started after 6 week

d) LNG-IUD is good in lactating women

e) For non-lactating women, ovulation not occurs until 12 week

Correct Answer - E

Ans. e. For non-lactating women, ovulation not occurs until 12 week

- Non-lactating (Postpartum): Contraceptive practice should be started after 3 week. Pill is good; IUD is equally effective alternative
- POP is safe in lactating women & can be started 6 weeks onwards. LNG is safer than desogestrel & gestagen from thrombosis point of view.
- Intramuscular & progestogen implant can be prescribed 6 week after deliver
- IUCD insertion within 10 min of expulsion of placenta or within 24 hr of delivery is proved safe & effective
- COC are contraindicated in the puerperium, both because of its adverse on milk secretion in a lactating women & increased risk of thromboembolic episode. COC can be prescribed to a nonlactating woman 3 weeks after delivery.

17. True about Progestogen only pill:

a) It is taken daily on the same time

b) Higher failure rate than COC

c) Fertility return to normal after discontinuation without any delay

d) Suited for lactating women lactating women

e) Ectopic pregnancy risk are same as COC

Correct Answer - A:B:D

Ans. a. It is taken daily on the same time ; b. Higher failure rate than COC; d. Suited for lactating women lactating women
Progestogen only Pill (POP) /Minipil

- Does not have some major side effects of combined pills & well suited for lactating women; some progestogens, in fact, increase milk secretion .
- Side-effect: weight gain, irregular menstrual bleeding, depression, breast cancer, thromboembolism .
- Advantage: Lactating women, women over 35 years, those with focal migraine, those intolerant to estrogen or oestrogen contraindicated, diabetic, hypertensive, sickle cell anaemia
- As regards to return of fertility, faster than COC users
- Contraindication: C/I to POP are previous are previous ectopic pregnancy, ovarian cyst, breast & genital cancer, abnormal vaginal bleeding active liver & arterial disease, porphyria, liver tumour.

18. True about Copper containing IUCD:

- a) Increased copper level in milk
- b) Increased risk of ectopic pregnancy
- c) Increased bleeding in menstruation with pain
- d) Provide protection against PID
- e) Irregular menses

Correct Answer - B:C:E

Ans. b. Increased risk of ectopic pregnancy; c. Increased bleeding in menstruation with pain; e. Irregular menses
Copper containing IUCD acts locally in uterus, so no affect on Cu level in milk

Complication of IUCD:

- Dysmenorrhoea
- Menstrual dysfunction: prolonged & heavy bleeding
- PID: 2-10 times greater among IUD users .
- Should pregnancy occur with a device in situ, there is risk of ectopic pregnancy (0.02%)

19. True about abdominal hysterectomy:

- a) Preferred for prolapse in postmenopausal woman
- b) Ureter injury can be avoided by opening the retroperitoneum & identifying ureter
- c) Postoperative complications are less than vaginal hysterectomy
- d) Preferred in obese patient
- e) Enables wide exploration of abdomen

Correct Answer - B:E

Ans. b. Ureter injury can be avoided by opening the retroperitoneum & identifying ureter; e. Enables wide exploration of abdomen

Abdominal Hysterectomy (AH)

- Required for endometriosis and large fibroids
- Results in greatest mean blood loss
- Injury to ureter is one of the most formidable complication of hysterectomy. Most ureteral injuries can be avoided by opening the retroperitoneum to directly identifying the ureter
- Has the highest incidence of febrile morbidity
- Posterior wall of abdominal wound infection (obviously)
- Longest hospitalisation
- Enables wide exploration of abdomen
- And slowest to recover

Factors suggesting preferred route:

- Significant uterine enlargement
- Inadequate transvaginal access
- Adnexal pathology & fixation
- Obliteration of pouch of Douglas(endometriosis)



20. Poor prognostic factors for heart disease in pregnancy is/are:

a) EF 30 mm Hg by echocardiography

b) Prior cardiac failure, arrhythmia or transient ischemic attack

c) Aortic valve area < 1.5 cm²

d) Class III and Class IV NYHA patients

e) Peak LV outflow tract gradient > 30 mm Hg by echocardiography

Correct Answer - B:C:D:E

Ans. b. Prior cardiac failure, arrhythmia or transient ischemic attack; c. Aortic valve area < 1.5 cm²; d. Class III and Class IV NYHA patients; e. Peak LV outflow tract gradient > 30 mm Hg by echocardiography

Heart diseases in which pregnancy with poor prognosis:

- Marfan syndrome
- Aortic disease with dilatation of > 50mm with bicuspid aortic valve.
- Coarctation of aorta
- Eisenmenger syndrome
- Severe fixed obstructive lesions (aortic stenosis, mitral stenosis, pulmonic stenosis, hypertrophic obstructive cardiomyopathy)
- NYHA class 3 & 4 heart diseases (severe systemic ventricular dysfunction/CHF)
- Ejection fraction < 30-40%
- Previous peripartum cardiomyopathy with any residual impairment of LV function
- Pulmonary arterial hypertension of any cause

- Severe cyanosis

21. True about mature ovarian teratoma:

a) Recurrence is common after excision

b) Contain hair Teeth, bone & cartilage

c) Mostly benign

d) May be bilateral

e) Torsion is common complication

Correct Answer - B:C:D:E

Ans. b. Contain hair Teeth, bone & cartilage; c. Mostly benign; d. May be bilateral; e. Torsion is common complication

- Teratoma are divided into three categories-
- Mature (benign) e.g. dermoid
- Immature (essentially malignant), e.g. solid teratoma & monodermal or highly specialized e.g. stroma ovarii"

Dermoid Cyst:

- Of all cystic tumours of the ovary 5-10% are dermoid .
- It constitute 97% of all ovarian teratoma .
- It contains sebaceous material & hair & the wall is lined in part by squamous epithelium which contains hair follicle & sebaceous glands
- Teeth, bone, cartilage, thyroid tissue & bronchial mucus membrane are often found in the wall
- Dermoid cysts are innocent ovarian tumours but epidermoid carcinoma occur in 1.7% & sarcomatous change have been described
- Dermoids are bilateral in 12-15%
- Torsion is most common (15-20%) & rupture is an uncommon (1%) complication



22. Which of the following indicates high risk choriocarcinoma:

a) Initial serum hCG > 40,000 m IU/mL

b) Prior chemotherapy failure

c) Following term pregnancy

d) Metastasis limited to lung and vagina

e) Long duration of disease

Correct Answer - A:B:C:E

Ans. a. Initial serum hCG > 40,000 m IU/mL; b. Prior chemotherapy failure; c. Following term pregnancy e. Long duration of disease

High risk factors which indicates the development of choriocarcinoma at the time of diagnosis of a hydatidiform mole are:

- Maternal age more than 40 years
- Excessive uterine enlargement
- Serum hCG levels more than 100,000mIU/ml
- Theca lutein cysts greater than 6 cm in diameter
- Toxemia, hyperthyroidism and coagulopathy
- Trophoblastic embolization
- Previously treated choriocarcinoma

23. Markers of malignant ovarian tumour is/are:

a) Inhibin

b) Beta human chorionic gonadotropin

c) Alpha fetoprotein (AFP)

d) Pax7

e) NB/70K

Correct Answer - A:B:C:E

Ans. a. Inhibin; b. Beta human chorionic gonadotropin; c. Alpha fetoprotein (AFP); e. NB/70K

Tumour Marker in Epithelial Ovarian Cancer :

- CA-125: screening of epithelial cancer of ovary
- Macrophage colony stimulating factor (M-CSF)
- OVX1
- HER-2/Neu
- Inhibin
- hCG :ovarian choriocarcinoma
- BRCA1 & BRCA2 (Serous carcinoma)
- MLH1, MSH2 & MSH6 (HNPCC associated ovarian cancer)
- AFP, hCG & CEA-Germ cell tumour
- Tumour marker- for embryonal carcinoma (AFB hCG)
- Endodermal sinus tumour (AFP)
- Choriocarcinoma (hCG)
- Germ cell tumor-AFP, hCG, NB/70K, placental alkaline phosphatase & lactate dehydrogenase.

24. Which of the following is/are ultrasonographic finding of twins:

a) Type of twin pregnancy can be diagnosed in first trimester

b) Lambda sign indicates dichorionicity

c) T sign suggests monochorionic diamniotic pregnancy

d) Monozygotic twins are more common

e) All

Correct Answer - A:B:C

Ans. a. Type of twin pregnancy can be diagnosed in first trimester; b. Lambda sign indicates dichorionicity; c. T sign suggests monochorionic diamniotic pregnancy

Sonography

- Separate gestational sacs
- Confirmation of diagnosis as early as 10th week of pregnancy
- Variability of fetuses, vanishing twin in second trimester
- Chorionicity (**twin peak sign or lamda sign**)(10–13 weeks of gestation)
- Thick septum in **dichorionic twins** at base of the membrane with triangular projection is known as lambda or twin peak sign
- Pregnancy dating, Fetal anomalies
- Fetal growth monitoring, Presentation and lie of fetuses
- Twin transfusion localization, Amniotic fluid volume



25. Absolute contraindication of medical abortion –

a) RHD

b) Ectopic pregnancy

c) Hypersensitivity to prostaglandins

d) Corticosteroid therapy

e) Porphyria

Correct Answer - B:C:E

Ans. is 'b' i.e., Ectopic pregnancy; 'c' i.e., Hypersensitivity to prostaglandins; & 'e' i.e., porphyria

Absolute contraindication of medical abortion:

- Allergies to mifepristone/ misoprostol
- Inherited porphyria
- Chronic adrenal failure
- Known or suggested ectopic pregnancy
- Undiagnosed adnexal mass

26. Not done in Category 2 NST –

a) Changes in maternal position

b) Oxygen supplementation

c) Avoiding maternal pushing

d) Uterine stimulation

e) Intravenous fluid administration

Correct Answer - D

Ans. is'd'i.e., Uterine stimulation

Intrauterine resuscitative measures for Category II NST:

- Supplemental oxygen
- Maternal position changes
- Intravenous fluid administration
- Correction of hypotension
- Reduction or discontinuation of uterine stimulation
- Administration of uterine relaxant
- Amnioinfusion
- Changes in second stage breathing and pushing techniques

NST Category II :

- These are indeterminate tracings.
- Not predictive of fetal acid - base status.
- Cannot be classified as category I or III.
- Require continued surveillance and re-evaluation. meet the "reactivity"
- Except for patterns that are sinusoidal, category III tracings require the combination of absent variability plus one or more additional finding. Such tracings are classified as category II.

27. All of the following are true regarding breech presentation expect –

a) External ballottement can be elicited

b) Uterine anomaly is the most common cause of breech presentation

c) Trial of labour is recommended if first fetus among twins is breech because of smaller fetal weights of twins

d) There is a better prognosis of fetus if preterm breech fetus is delivered by caesarean section

e) Lovset's maneuver can be done because of curved birth canal

Correct Answer - B:C

Ans. is .b, i.e., uterine anomaly is the most common cause of breech presentation; & 'c' i'e', Trial of labour is recommended if first fetus among twins is breech because of smaller fetal weights of twins

ETIOLOGY:

- Prematurity

Factors preventing spontaneous version:

- Breech with extended legs
- Twins
- Oligohydramnios
- Septate or bicornuate uterus
- Short cord, relative or absolute
- IUD of fetus.

Favourable adaptation:

- Hydrocephalus

- Placenta previa
- Contracted pelvis
- Cornu-fundal attachment of the placenta

Undue mobility of the fetus

- Hydramnios,
- Multipara with lax abdominal wall.
- Fetal abnormality: Trisomies 13, 18, 21, anencephaly and myotonic dystrophy

BIRTH INJURIES ASSOCIATED WITH BREECH DELIVERY COMPLICATIONS

- Brain damage
- Spinal cord injury
- Fetal distress
- Umbilical cord prolapse
- Seizures
- Cerebral palsy
- Compressed umbilical cord
- Nerve damage
- Umbilical cord wrapped around baby's neck
- Oxygen deprivation

28. Which of the following can be used alone as a method of contraceptive if OCP is not started after menses?

a) Copper T

b) LNG - IUD ate

c) Mifepristone

d) Ulipristal acetate

e) Norgestrel

Correct Answer - A:C:D

Ans. is.a, i.e., Copper T;'c' i.e., Mifepristone; &'d' i.e., Ulipristal acetate

Emergency contraceptives:

- Levonorgestrel
- Ulipristal acetate
- Copper IUDs (Gold standard)
- Mifepristone
- Ethinyl estradiol
- Ethinyl estradiol 50 µg + norgestrel 0.25 mg

29. What is the management of a woman who had IUCD inserted and diagnosed to have PID –

a) First give antibiotic then follow up

b) First remove IUD then give antibiotics

c) First give antibiotic then remove IUD

d) Remove IUD and Simultaneously start antibiotic

e) No need for antibiotics just follow up

Correct Answer - A:B

Ans. is'a'i.e., First give antibiotic then follow up; > 'b'i.e., First remove IUD then give antibiotics

- If an IUD user receives a diagnosis of PID, the IUD does not need to be removed. However, the woman should receive treatment according to these recommendations and should have close clinical follow-up no clinical improvement occurs within 48-72 hours of initiating treatment, providers should consider removing the IUD.
- PID treatment regimens must provide empiric, broad spectrum antibiotic coverage of likely pathogens

30. High risk marker(s) for serous ovarian cancer are –

a) p53

b) PAX2/8

c) Calretinin

d) All of the above

e) None of the above

Correct Answer - A:B

Ans. is 'a' i.e., p53; &'b' i.e., PAX2/8

The biomarkers of high grade serous ovarian cancer are :-

- P53 over expression
- PAX 2/8 (a mullerian marker) -> a transcription factor that is expressed in normal female genital tract epithelium (fallopian tube, endometrium, endocervix)

31. A woman with amenorrhea is having negative progesterone challenge test but has bleeding on combined estrogen-Progesterone challenge. What can be the cause -

a) Anovulation

b) Asherman syndrome

c) Pregnancy

d) Pituitary tumor

e) PCOD

Correct Answer - D

Ans. is 'd' i.e., Pituitary tumor

- **Negative progesterone challenge test** - which **rules out** PCOD - (otherwise too, PCOD is a cause of secondary amenorrhea).
- When next step was done i.e., estrogen, progesterone combined test - **It** comes out to be positive i.e., compartment I system (uterus, endometrium and outflow tract) is normal if properly stimulated by estrogen which rules out mullerian agenesis and ashermann syndrome.
- Positive estrogen progesterone combined test means the defect is in the production of estrogen i.e., either ovaries, pituitary or hypothalamus.

32. Genes involved in high grade serous carcinoma of ovary is –

a) K-RAS

b) PTEN

c) p53

d) WT 1

e) Beta - catenin

Correct Answer - C:D

Ans. is .c, i.e., p53; &'d' i.e., WTI

Two gene signatures of ovarian high grade serous carcinoma are:-

- WTI (Wilms tumour protein, a suppressor gene)
- P53 (tumor suppressor gene) overexpression and mutation

33. A 32 years women is presenting with infertility with facial hair growth other associated finding in the given patient may be –

a) Obesity

b) Diabetes mellitus

c) High androgen levels

d) Hypertension

e) Acanthosis nigricans

Correct Answer - A:B:C:D:E

Ans. is 'a' i.e., Obesity; 'b' i.e., Diabetes mellitus; 'c' i.e., High androgen levels; 'd' i.e., Hypertension; & 'e' i.e., Acanthosis nigricans

Infertility with hirsutism (facial hair growth) in a young woman (32 years) suggests the diagnosis of PCOD (PCOS).

- Young woman Central obesity
- BMI > 30kg/cm²
- Waist line > 88 cm
- Oligomenorrhoea, amenorrhoea Infertility (20%)
- Hirsutism
- Acanthosis nigricans due to insulin resistance.
- Thick pigmented skin over the nape of neck, inner thigh and axilla
- Most androgens from ovary
- Increase fasting insulin > 10mIU/L

34. Which of the following statement(s) is true about abdominal incision in women for various surgical procedures -

a) Paramedian: best incision

b) Transverse incision should be only used in exceptional cases

c) Cherney incision is useful in uro-gynaecological procedures

d) Maryland incision provide improved access to the pelvic side wall

e) Rutherford-morrison is particularly useful for approaching ovarian masses

Correct Answer - C:D:E

Ans. is 'c' i.e., Cherney incision is useful in uro-gynaecological procedures; 'd' i.e., Maylard incision provide improved access to the pelvic side wall; & 'e' i.e., Rutherford-Morrison is particularly useful for approaching ovarian masses.

Facts about abdominal incisions in obstetrics

- Most commonly preferred incisions → Midline vertical incision or suprapubic transverse incision (Pfannenstiel incision).
- Paramedian or midline transverse incision are not used except in exceptional situations. . Maylard incision provide improved access to pelvic side wall.

Cherney incision is useful for :

- Oncological surgery
- Complex uro-gynaecological procedures (if incision is placed lower).
- Rutherford-Morrison is particularly useful for reaching the ovarian masses in pregnancy (especially in 2nd half).

35. True statement about primary dysmenorrhea -

a) Pain starts 2-3 day before menstruation and stops after 1day of menstruation

b) Pain begins a few hours before or just after the onset of a menstrual period and may last 48 to 72 hours

c) May be associated with Psychological factors

d) GnRH antagonists are always used in 1st line treatment

e) All

Correct Answer - B:C

Ans. is 'b' i.e., Pain begins a few hours before or just after the onset of a menstrual period and may last 48 to 72 hours; &'c' i.e., May be associated with psychological factors

- Primary dysmenorrhea occurs during ovulatory cycles and usually appears within 6 to 12 months of the menarche.
- Pain in dysmenorrhea begins a few hours before or just after the onset of menstruation and usually lasts 48-72 hours.

Associated Symptoms

- Nausea and vomiting
- Fatigue
- Diarrhoea
- Lowerbackache
- Headache
- Behavioural and psychological

Treatment

- NSAIDs are the drugs of choice for treatment of primary

- dysmenorrhea,
OCPs

36. True statement about vacuum extraction of baby -

- a) Pressure is maintained b/w 5 kg/cm² to 8 kg/cm²
- b) Done when cervix is fully dilated
- c) Centre of cup should be placed 1 cm in front of posterior fontanelle
- d) Cup rim should be placed 3 cm from the anterior fontanelle
- e) All the above

Correct Answer - B:D

Ans. (b) Done when cervix is fully dilated; (d) Cup rim should be placed 3 cm from the anterior fontanelle

INDICATIONS OF VENTOUSE DELIVERY:

- Fetal heart rate abnormalities
- Low fetal scalp pH
- Non-progressive labour in 2nd stage
- Maternal exhaustion
- Cervix should be full dilated.
- The pressure is kept between 0.2 kg/cm², to 0.8 kg/cm²
- The flexion point is found along the sagittal suture, approximately 3 cm in front of the posterior fontanel and approximately 6 cm from the anterior fontanel. Because cup diameters range from 5 to 6 cm, when properly placed, the cup rim lies 3 cm from the anterior fontanel

37. All is/are true about HIV in pregnancy except

- a) Vertical transmission to the neonate is about 15-30%
- b) HAART therapy of pregnant woman reduces chance of transmission to neonates
- c) Zidovudine therapy should be given to neonates
- d) Elective caesarean section reduces the risk of vertical transmission
- e) Zidovudine is given in place of stavudine in HAART therapy if mother is anaemic

Correct Answer - E

Ans. (e) Zidovudine is given in place of stavudine in HAART therapy if mother is anaemic

Management of HIV in pregnancy:

Antepartum :-

- Most patients will be asymptomatic.
- Patient requires obstetric care + HIV care. Consult HIV specialist.
- MTP option is offered.
- Nutritional supplement including micronutrients.
- Routine antenatal investigation + Baseline CBC, LFT, RFT.
- Investigations of STDs, TB, Toxoplasmosis, Cytomegalovirus.
- CD4 count & viral load in each trimester. If CD4 count < 200, prophylactic Antibiotics are indicated.
- Counsel against unprotected coitus.
- USG- Routine + Fetal well being assessment.
- Avoid invasive procedures.

Anti Retroviral Therapy(ART)

ACTG 076 regimen:-(AIDS Clinical Trial Group)

- **Zidovudine(AZT)**
- Reduction of transmission:- 25.5% to 8.3%
- CDC Thai regimen :-
- Zidovudine(AZT)
- Reduction of transmission:- 50%
- HIV NET 012 regimen:-
- **Nevirapine**
- Reduction of transmission:- 47%
- PETRA study:- Zidovudine(AZT) + **Lamivudine(3TC)**
- Reduction of transmission :- 69%

INTRAPARTUM MANAGEMENT

- **Elective LSCS** reduces perinatal transmission upto 50-80%.

During Delivery:-

- Avoid ARM
- Avoid Vaginal tears
- Avoid Instrumental delivery
- Restrict Episiotomy
- Avoid fetal scalp electrode/ fetal blood sampling

POSTPARTUM MANAGEMENT:

- Wash newborn after birth, especially face.
- Mouth suction is avoided
- Avoid hypothermia

• **Anti Retroviral Therapy (ART)**

- All vaccines to asymptomatic children & only inactivated vaccines to symptomatic children
- New born testing
 - ELISA TEST false positive upto 18 months
 - Before that to consider newborn positive 2 tests must be positive from HIV 1 culture, p-24 antigen, PCR

38. Screening tests for cervical cancer includes

a) HPV serology

b) Cervical biopsy

c) Colposcopy

d) Cytology

e) Conisation

Correct Answer - A:D

Ans. a. HPV serology; d. Cytology

Cervical Cancer Screening:

- Pap smear
- colposcopy to examine the cervix and surrounding structures
- A biopsy may be performed to remove tissue samples for examination in a laboratory.
- A DNA test may be ordered to see whether a high-risk form of HPV is present.
- Cytoplasmic vacuolization and nuclear enlargement of cells is seen as histologic features in HPV-related cervical intraepithelial neoplasia

39. Most common cause of primary postpartum hemorrhage is:

a) Uterine atony

b) Uterine inertia

c) Uterine inversion

d) Retained placenta

e) Traumatic

Correct Answer - A

Ans. a. Uterine atony

Primary Postpartum Hemorrhage:

- Atonic uterus: Uterine atony is most common(80% cases)
- Grand multipara
- Overdistension of the uterus as in multiple pregnancy, hydramnios & big baby
- Uterine fibroid
- Placenta: Morbidly adherent placenta(accrete, perceta)
- Antepartum haemorrhage(both placenta praevia & abruption)
- Prolong labour , Mismatched 3rd stage labour

40. Which of the following is true about changes during Pregnancy:

a) ↑ Minute ventilation

b) ↓ Tidal volume

c) ↑ Minimum alveolar concentration (MAC) of anaesthetic gases

d) ↑ Blood volume & RBC volume

e) ↑ Respiratory rate

Correct Answer - A:B:D

Ans. a. ↑ Minute ventilation; b. ↓ Tidal volume; d. ↑ Blood volume & RBC volume

RESPIRATORY CHANGES:

PARAMETERS	CHANGES
Respiration rate/min	Unaffected
Vital capacity (mL)	Unaltered
Tidal volume(ml)	↑ by 40%
Residual volume (mL)	↓ by 20%
Inspiratory capacity (IC)	↑ by 10%
Minute ventilation	↑ by 40%
Total lung capacity (mL)	↓ by 5%

41. True about emergency contraceptive:

a) Available as over the counter (OTC)

b) LNG alone, 0.75 initially followed by another 0.75mg 12 hours apart is emergency contraceptive method of choice

c) Ethinyl estradiol (EE) should be taken within 72 hours

d) Copper IUD is used within 5 days of unprotected sex

e) LNG-IUS is one of best method

Correct Answer - A:B:C:D

Ans. a. Available as over the counter (OTC) ; b. LNG alone, 0.75 initially followed by another 0.75mg 12 hours apart is emergency contraceptive method of choice; c. Ethinyl estradiol (EE) should be taken within 72 hours; d. Copper IUD is used within 5 days of unprotected sex

Postcoital (emergency) pills:

- Levonorgestrel 0.5 mg + ethinyl estradiol 0.1 mg → within 72 hours of unprotected intercourse and repeated after 12 hours - *Yuzpe method*.
- Levonorgestrel alone 0.75 mg taken twice with 12 hour gap within 72 hours of unprotected intercourse → *method of choice for emergency contraception*.
- Mifepristone 600 mg single dose within 72 hours of unprotected intercourse.
- Other methods:- progesterone only pill (mini pills), IUD insertion, High dose estrogens.

42. True about Medical Termination of Pregnancy in India:

- a) Can be done in any hospital by a trained obstetrician
- b) Only women consent is needed, husband consent not mandatory
- c) Opinion of two doctors are needed if carried after 20 weeks
- d) Opinion of one doctors is needed if carried before 20 weeks
- e) Both surgical & medical method for termination are available

Correct Answer - B:E

Ans. b. Only women consent is needed, husband consent not mandatory; e. Both surgical & medical method for termination are available

Medical Termination of Pregnancy:

- The Indian act permits the wilful termination of pregnancy before the age of fetal viability(20 weeks gestation) for well-defined indication
- To be performed by recognized medical practitioners in recognized place approved by competent authority under act.
- The identity of person k treated as a statutory Personal matter
- Document to be maintained: Form I, Form II & admission register
- Written consent of woman is needed.
- Husband consent is not required.
- In case of minor girl or lunatic or mentally retarded woman, written consent of her parents or legal guardian I to be taken
- Both medical & surgical methods are used.
- Surgical methods include-manual vaccum aspiration, suction evacuation, dilation & evacuation & dilation & curettage .

- Medical method includes-Mifepristone alone, Mifepristone & misoprostol methotrexate & misoprostol, Tamoxifen & misoprostol, misoprostol alone etc.

43. Medical treatment of myoma includes:

a) Tamoxifen

b) Mifepristone

c) LNG-IUD

d) GnRH agonist

e) GnRH antagonist

Correct Answer - B:C:D:E

Ans. b. Mifepristone; c. LNG-IUD; d. GnRH agonist; e. GnRH antagonist

Medical treatment of Myoma:

- Mifepristone (RU-486) 10-25 mg daily for 3 month causes amenorrhoea & shrinkage of the tumor by 50%
- Antiprogestones(Mifepristone)
- Danazol
- GnRH analogs- Agonists(e.g.goserelin,luporelin) &antagonists(e.g ganirelix &cetrorelix)
- LNG-IUS
- Progesterone synthetase inhbitors

44. True about Dysgerminoma:

a) Rare tumor in pregnancy

b) Always b/l

c) Total abdominal hysterectomy is usually done

d) Unilateral salpingo-oophorectomy is generally done

e) Constitute 30% of all malignant germ cell tumour

Correct Answer - D:E

**Ans. d. Unilateral salpingo-oophorectomy is generally done; e. Constitute 30% of all malignant germ cell tumour
Dysgerminoma is the most malignant germ cell tumour (not a virilising tumour).**

- Seen in young females like other GCT (not in post menopausal women).
- It is unilateral.
- Its cut section is soft due to degeneration (gritty cut section is seen in Brenner's tumour).

Tumour markers for Dysgerminoma are :

- LDH
- Alpha fetoprotein is normal in dysgerminoma.
- Placental alkaline phosphatase.
- Beta HCG

Management of Dysgerminoma:

- Surgical — including resection of the primary lesion (unilateral oophorectomy) and proper surgical dissection
- Metastatic Disease — Chemotherapy or Radiation therapy

45. True about placental abruption:

a) Pre-eclampsia is a risk factor

b) Common in multigravida

c) Common in primigravida

d) Premature separation of normal implanted placentae

e) Character of bleeding is bright red blood

Correct Answer - A:B:D

Ans. a. Pre-eclampsia is a risk factor; b. Common in multigravida; d. Premature separation of normal implanted placentae

Abruptio placentae:

- It is a form of antepartum hemorrhage where bleeding occurs due to premature separation of normally situated placenta.
- Hypertension in the pregnancy is important predisposing factor

ETIOLOGY:

- Primary cause of A P is uncertain

Several associated conditions identified:

- Increase in age & parity: 1.3-1.5%
- Pre-eclampsia: 2.1-4%
- Chronic hypertension: 1.8-3%
- Preterm ruptured membranes: 2.4-4.9%
- Multifetal gestation: 2.1%
- Cigarette smoking: 1.4-1.9%
- Cocaine abuse: NA
- Folic acid deficiency
- Prior abruption: 10-25%
- Uterine leiomyoma: NA

- Hydromnios: 2%

Symptoms

- Vaginal Bleeding (78%)
- Abdominal Pain (66%)-May be severe and constant, posterior placenta may present with back pain Signs
- Vital signs suggestive of cardiovascular compromise-Tachycardia, orthostatic changes in Blood Pressure and pulse
- Evaluate for external signs of trauma
- Uterus hypertonic or tense (Couvelaire Uterus)-Fundus tender to palpation

46. True about Klinefelter syndrome:

a) Leg are more in length than trunk

b) Intrauterine fertilization can not be successful even with TESA & ICSI

c) Gynaecomastia

d) FSH and luteinizing hormone (LH) are decreased

e) All

Correct Answer - A:C

Ans. a. Leg are more in length than trunk; c. Gynaecomastia
Klinefelter syndrome :?

- Klinefelter syndrome is the most common chromosomal disorder associated with male hypogonadism and infertility.
- It is defined classically by a 47, XXY karyotype with variants demonstrating additional X and Y chromosomes. (Other variants can have 48 XXXY, rarely 49 XXXXY or mosaics can be there with some cells containing normal 46, XY and others 47, XXY). Classically, it results from meiotic non-dysjunction of sex chromosomes (40% during spermatogenesis and 60% during oogenesis). Mostly, non-dysjunction occur during 1st meiotic division.
- The patient has male phenotype with feminizing features due to extra X-chromosome (note : presence of one Y chromosome is sufficient for male phenotype. Thus XY, XXY, XXXY all are males). Extra inactive chromosome appears as Barr body.
- Important clinical features include microorchidism with normal external genitalia, mental retardation, gynecomastia, lack of secondary sexual characteristics with eunuchoid body habits, disproportionately long arms and legs, hypogonadism, increased

incidence of tumors (breast carcinoma, germ cell tumors), increased incidence of autoimmune disorders (e.g. SLE), and cardiac problems (most common is mitral valve prolapse). Testosterone levels are decreased, whereas levels of gonadotropins (FSH/LH) are elevated.

47. True about ovulation & menstruation:

a) Temperature decrease at time of ovulation

b) Estrogen have a role in proliferative phase

c) LH surge occurs before ovulation

d) 100 ml blood loss is normal

e) All

Correct Answer - B:C:D

Ans. b. Estrogen have a role in proliferative phase; c. LH surge occurs before ovulation; d. 100 ml blood loss is normal

- The duration of bleeding is about 3-5 days & estimated blood loss is between 50-200 ml.
- The maximum peak of estrogen secretion is seen about 48 hours before ovulation, whereas the LH peak occurs about 24-36 hours before ovulation.
- A surge in LH secretion triggers ovulation, & ovulation normally occurs about 9 hr after peak of LH surge at midcycle"
- Ovulation normally occurs about t hours after the peak of the LH surge at midcycle
- A convenient but retrospective indicator of the time of ovulation is a rise in the basal body temperature

48. All are true about LNG except:

a) Cause Endometrial suppression

b) Can be used in emergency contraception

c) Can not be given to lactating women

d) Devoid of estrogenic side-effects

e) All

Correct Answer - C

Ans. c. Can not be given to lactating women

- LNG prevent ovulation & cause desynchronization of endometrium
- It can be offered to a lactating women .
- It has no oestrogen & so no estrogenic associated side effects .
- It can be offered to hypertensive, cardiac & diabetic woman

49. True statement regarding use of ACE inhibitors in pregnancy:

a) Cause polyhydramnios

b) Cause renal agenesis

c) Cause pulmonary hypoplasia

d) Use during first 3 month is safe

e) Safe in last trimester

Correct Answer - B:C

Ans. b. Cause renal agenesis ; c. Cause pulmonary hypoplasia

Fetal side effects of ACE inhibitor:

- Oligohydramnios
- IUGR & fetal renal tubular dysgenesis
- Neonatal renal failure
- Pulmonary hypoplasia

ACE inhibitors is contraindicated during the second and third trimester of pregnancy because of risk of fetal hypotension, anuria, and renal failure sometimes associated with fetal malformations or death

50. True about amniotic fluid:

- a) Same concentration of plasma throughout pregnancy
- b) Forms from transudation of plasma through fetus skin before 20 wk of gestation
- c) Fetus swallows amniotic fluid
- d) Protects fetus from injury
- e) Main channel for gaseous exchange

Correct Answer - B:C:D

Ans. b. Forms from transudation of plasma through fetus skin before 20 wk of gestation; c. Fetus swallows amniotic fluid; d. Protects fetus from injury

Amniotic Fluid:

- In first half of pregnancy, the composition of the fluid is almost identical to a transudate of plasma. But in late pregnancy, the composition is very much altered mainly due to contamination of fetal urinary metabolites.
- The respiratory function of the placenta makes the fetal oxygen supply and fetal carbon dioxide removal possible
- There is constant exchange of water b/w the amniotic fluid & maternal blood, the water being completely replaced every three hours.
- Sometime in fifth month the fetus begins to swallow amniotic fluid

51. Which of the following is/are criteria for the expectant management in pre-eclampsia excepts

a) Platelet count <100000 ml

b) B.p.>140/90 mm Hg

c) Urine output < 400mUday

d) Persistent headache

e) Visual disturbances

Correct Answer - B

Ans. b. B.P.>140/90 mm Hg

Criteria for severe Preeclampsia:

- A persistent SBP of > 160 mm Hg systolic or DBP of > 110 mmHg
- Persistent severe epigastric pain
- Cerebral or visual disturbances
- Oliguria <400ml/24hr
- Protein excretion of > 5gm/day
- HELLP syndrome
- Retinal haemorrhage, exudates or papilledema
- Intrauterine growth restriction of the foetus
- Pulmonary oedema

52. True about obstetrical outlet:

a) Posterior wall is deficient

b) Bounded above by the plane of least pelvic dimensions

c) Anterior wall is formed by ischial bones

d) Minimum obstetric diameter

e) Its plane is plane of least pelvic dimensions

Correct Answer - B:E

**Ans. b. Bounded above by the plane of least pelvic dimensions;
e. Its plane is plane of least pelvic dimensions**

Obstetrical Outlet:

- It is the segment of the pelvis bounded above by the plane of least pelvic dimensions & below by the anatomical outlet
- Its anterior wall is deficient at the pubic arch; its lateral walls are formed by ischial bones & the posterior wall includes whole of the coccyx .
- Shape: It is antero-posteriorly oval
- Plane: The plane is otherwise known as plane of least pelvic dimensions or narrow pelvic plane. The plane extends from the lower border of the pubis symphysis to the tip of ischial spines posteriorly to meet the tip of the 5th sacral vertebrae. It is narrowest plane in pelvis & roughly corresponds to the origin of levator ani muscle .
- Diameters: Transverse (Syn-Bispinous 10.5 cm), Anteroposterior (11cm) & Posterior sagittal (5 cm)
- Axis: It is represented by a line joining the centre of the plane with the sacral promontory. Its direction is almost vertical.

53. True about ventricular septal defect:

a) MC congenital heart anomaly

b) Presentation depends on size of lesion

c) Membranous type closes early than muscular type

d) Mid-diastolic murmur

e) CHF never develops

Correct Answer - A:B

Ans. a. MC congenital heart anomaly; b. Presentation depends on size of lesion

Muscular VSD have the highest likelihood of spontaneous closure
Patients with VSD become symptomatic around 6 to 10 weeks of age with congestive cardiac failure.

VSD is the most common cardiac malformation and accounts for 25/o of congenital heart disease. Defects may occur in any portion of the ventricular septum, but most are of the membranous type. These defects are in a posteroinferior position, anterior to the septal leaflet of the tricuspid valve.

VSDs between the crista supraventricularis and the papillary muscle of conus may be associated with pulmonary stenosis and other manifestations of the tetralogy of Fallot.

54. OCP is absolutely contraindicated in:

a) Age > 40 year with smoking

b) Carcinoma breast & genitalia

c) H/o Epilepsy

d) Thrombophlebitis

e) Hyperlipidemia

Correct Answer - A:D

Ans. a. Age > 40 year with smoking; d. Thrombophlebitis

Absolute contraindication of combined OCP:

- Arterial or venous thrombosis
- Active liver disease
- Pregnancy
- Severe hypertension
- Stroke
- Liver adenoma
- Carcinoma
- Undiagnosed genital tract bleeding
- Valvular heart disease ischemic heart disease
- Angina
- Diabetes with vascular complication
- Focal migraine
- Severe hypercholesterolemia
- Smokers over age 35 years
- Liver tumor
- Estrogen-dependent neoplasm, e.g., breast cancer
- Breastfeeding (within 6 weeks postpartum)
- Major surgery or prolonged immobilization



55. True about Mayer-Rokitansky-Kuster - Hauser syndrome

a) 45 XY

b) Upper 2/3 vagina absent

c) Ovary atrophic

d) Uterus abnormality

e) Amenorrhoea

Correct Answer - B:D:E

Ans. b. Upper 2/3 vagina absent; d. Uterus abnormality; e. Amenorrhoea

In androgen insensitivity syndrome a patient has XY karyotype and functioning testes however, the body cannot respond to testosterone due to mutations in the androgen receptor.

Features of Meyer Rokitansky kuster Hauser (Mullerian agenesis syndrome)

- Sporadic inheritance
- Karyotype 46xx
- Normal breast development
- Normal (adipose) and pubic hair
- Uterus absent
- Vagina absent
- Cervix absent
- Ovary normal
- Testosterone (female levels)
- Associated anomalies
- The presentation of complete mullerian agenesis (Meyer Rokitansky

kuster Hauser syndrome) may be confused with androgen insensitivity syndrome.

Presentation	Mullerian agenesis
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Inheritance pattern	Sporadic
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Karyotype	46xx
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Breast development	Yes
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Axillary and pubic hair	Yes
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Uterus	No
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Gonad	Ovary
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Testosterone	Female levels
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Associated anomalies	Yes
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56. Infertility is defined as:

a) If a couple fails to achieve pregnancy after 18 month of unprotected & regular intercourse

b) If a couple fails to achieve pregnancy after 15 month of unprotected & regular intercourse, it is an indication to investigate the couple

c) If a couple fails to achieve pregnancy after 1 year of unprotected & regular intercourse

d) Termed primary if conception has never occurred

e) It is termed secondary if conception has never occurred

Correct Answer - C:D

Ans. c. If a couple fails to achieve pregnancy after 1 year of unprotected & regular intercourse ; d. Termed primary if conception has never occurred

Infertility:

- Infertility implies apparent failure of a couple to conceive
- If a couple fails to achieve pregnancy after 1 year of unprotected & regular intercourse, it is an indication to investigate the couple . This is based on observation that 80-85% of normal couples achieves conception within 1 year; 75% in 6 month & 50% in 3 months .
- It is termed primary if conception has never occurred 6 secondary if the patient fails to conceive after having achieved a previous conception

57. Most common site of CIN is :

a) Squamo-columnar junction

b) Ectocervix

c) Endocervix

d) Nabothian gland

e) All

Correct Answer - A

Ans. a. Squamo-columnar junction

CIN: The metaplasia extends from the original squamocolumnar junction (squamosquamous) outside to the newly developed (physiologically active) squamocolumnar junction (now squamocolumnar) inside. This area is transformation zone.

58. Which of the following is/are true regarding management of ectopic pregnancy:

a) Intrauterine sac may be visible by TVS when the β hCG levels is > 1000 mIU/ml

b) Hemoperitoneum is indication for medical treatment

c) Methotrexate is drug of choice

d) Laparoscopy can be used for diagnosis

e) None

Correct Answer - A:C:D

Ans. a. Intrauterine sac may be visible by TVS when the β hCG levels is > 1000 mIU/ml; c. Methotrexate is drug of choice; d. Laparoscopy can be used for diagnosis

- Serial β hCG levels are usually required when the initial ultrasound performed fails to demonstrate either intra- or extrauterine pregnancy.
- At β hCG levels of approximately 2000 mIU/ml, a viable intrauterine pregnancy should be seen by vaginal ultrasound.
- Laparoscopy of Direct visualization of the fallopian tubes and pelvis diagnostic laparoscopy offers a reliable diagnosis in most cases of ectopic pregnancy and a ready transition to definitive operative therapy.
- Methotrexate Therapy is the drug of choice