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ONE Touch Obstetrics & Gynecology

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ONE Touch

Obstetrics & Gynecology

For NEET PG/NEXT/FMGE/INI-CET

Second Edition

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Preface

All My Dear Bacchas!

It gives me immense pleasure and pride to present to you the second edition of One Touch Obstetrics and Gynecology. Thank you so much for the overwhelming response you all have shown to the first edition of the book. I am grateful for the love, affection and faith you all have bestowed on me and my teachings. You have always appreciated my way of teaching whether it is in the form of DBMCI classes, Marrow, my books–SARS–Obstetrics and Gynecology, my social media handles or the One Touch book.

In the second edition of One Touch Obstetrics and Gynecology, everything you need to know in the subject is covered in 288 pages (with all updates and new tables). I have tried to minimize the typographical errors which had inadvertently crept in, in the first edition of the book.

Purpose of the Book

To make the concepts of Obstetrics and Gynecology revisable in just 5 days.

Features of the Book

1. **Theory:** Entire theory of the subject is written in the form of flowcharts.
2. **Concepts:** These 288 pages contain all the concepts that you need to know and revise before any PG entrance exam–NEET/FMGE/INI-CET.
3. **Images:** The book contains 250+ colored images in Obstetrics and Gynecology.
4. **Important Updates:** All important updates, which are relevant, have been covered.
5. **PYQs:** The PYQs of INI-CET, NEET and FMGE exams have been covered from the last 5 years.

How to Use the Book

1. If you have already read the subject from any source—online app/offline class, use this book as a source of revision. Read the text, solve PYQs and revise all the important images.

   The book should be revised at least 3 times:

   i. Time for first reading: 5 days
   ii. Time for second reading: 3 days
   iii. Time for third reading: 1.5 days

2. If you are yet to start with the book—in this case, I recommend you to first watch the video of the topic and then, read whatever content is given related to the topic from this book. If you feel, you want to add some more information, add it here itself. This book will become your primary source for studying Obstetrics and Gynecology.

Who Can Use the Book

Anyone who is preparing for NEET PG/NEXT/INI-CET/FMGE.

Is this enough for entrance exams?

Yes, if you revise it properly, it is enough for any entrance exam.

The only thing which you have to do is to revise the concepts at least thrice and solve the PYQs.

I have deliberately not given explanations of the PYQs, as I feel if you have read One Touch Obstetrics and Gynecology book properly, you will be able to answer all PYQs.

Just in case you get stuck at any question, watch my recall videos on YouTube.

I would like to conclude by quoting what Bruce Lee once said:

"I fear not the man who has practiced 10,000 kicks once but I fear the man who has practiced one kick 10,000 times."

So, Bacchas, just keep revising. Revising the concepts and solving the PYQs are the only key to clear any exam. Keep studying and All the Best!

I am thankful to One Touch readers and grateful to Dr Tathagata Bakuli for sending me the errata of the book. With his help, I have been able to correct the few typographical errors which had inadvertently crept in.

Thanks, Dr Tathagata Bakuli

KPC Medical College and Hospital, Jodhpur

Batch—2016

If there are any other typographical errors which you all come across—please message me on my insta handle—drsakshiarorahans.

Sakshi Arora Hans

From the Publisher's Desk

Dear Students,

Let us begin with a power-packed and inspiring quote:

> Arise, awake, and stop not until the goal is achieved.
>
> —**Swami Vivekananda**

Healthcare is undoubtedly one of the most noble and sacred professions. We are truly fortunate to be a part of this field, which stands as a beacon of selfless service to humanity. Healthcare professionals work tirelessly, transcending boundaries of caste, creed, religion, community, nationality, and preferences. Their service is a testament to the divine nature of this profession.

We extend our deepest gratitude to all healthcare professionals for their unwavering commitment, particularly during the pandemic. When the world retreated behind closed doors, these brave individuals stood on the frontlines, leaving no stone unturned in saving the lives of people.

At CBS Publishers, we take great pride in supporting the healthcare community by offering resources that empower future professionals. Ten years ago, we laid the foundation of the PGMEE segment with titles such as the **Conceptual Review Series, SARP Series, AIIMS MedEasy, NIMHANS, PGI Chandigarh, My PGMEE Notes, ROAMS, PRIMES, FMGE Solutions** and many more.

What makes our PGMEE books stand out is the updated, simple, clear, and easy-to-understand language, making study sessions feel less like a challenge and more like an enjoyable learning experience. A team of our esteemed medical educators brings their expertise to create these comprehensive yet compact books, ensuring that all the critical topics are covered.

A special feature of our books is the use of illustrations that simplify complex concepts, making them easier to grasp. We have also included previous years' questions, complete with detailed explanations, which are invaluable for exam preparation. Image-Based Questions (IBQs) further enhance the learning experience. The combination of concise theory and multiple choice questions makes these books the ultimate tool to ease exam-related worries.

FMGE Solutions is one of our best-selling titles, meticulously designed to meet the specific needs of FMG aspirants. This comprehensive guide is an all-in-one resource for FMGE preparation, offering in-depth coverage of essential topics, detailed explanations, and a wide array of questions that reflect the latest exam patterns. Its reputation as a bestseller speaks of its effectiveness and reliability as a trusted resource for future medical professionals.

One Touch Series has been tailored specifically for aspirants of NEET PG, NExT, FMGE, and INI-CET. Conceptualized with a focus on last-minute revision, the **One Touch Series** covers a complete range of preclinical, paraclinical, and clinical subjects. These concise, expertly curated books have been designed to help students efficiently review key concepts, ensuring they are well-prepared and confident as they approach their exams.

This year, we have introduced a new addition to the CBS Exam Book Series: **Ten into Ten** (Part A and B). According to market research, at present no book is available for practice and this new addition to our exam book series will fill this gap for sure. Although there are multiple apps from where students can attempt test series online, not a single updated book is available in the market for offline practice, and this book now in your hand will fill this vacuum. The motto of this book is Practice: Practice: Practice as this book offers a decent amount of MCQs which will meet the evolving needs of students. **Ten into Ten** is

a comprehensive question bank covering 19 medical subjects. It offers over 10,000 meticulously curated questions across 10 key subjects, crafted by 10 renowned medical scholars.

Following this, we will soon release the next part, **Nine into Nine**, further expanding our collection of practice material for the PGME Examination, with the latest and most effective study approaches.

At CBS, we are committed to revolutionize the medical education; and your support and encouragement can make our task easier. So, keep extending your support by sending feedback to us. We will be highly pleased to serve you and make you victorious in your career. You can share your feedback at feedback@cbspd.com

Wishing you all the best in your endeavors.

Mr Bhupesh Aarora
(Sr. Vice President – Publishing & Marketing)
bhupeshaarora@cbspd.com | +91 95553 53330

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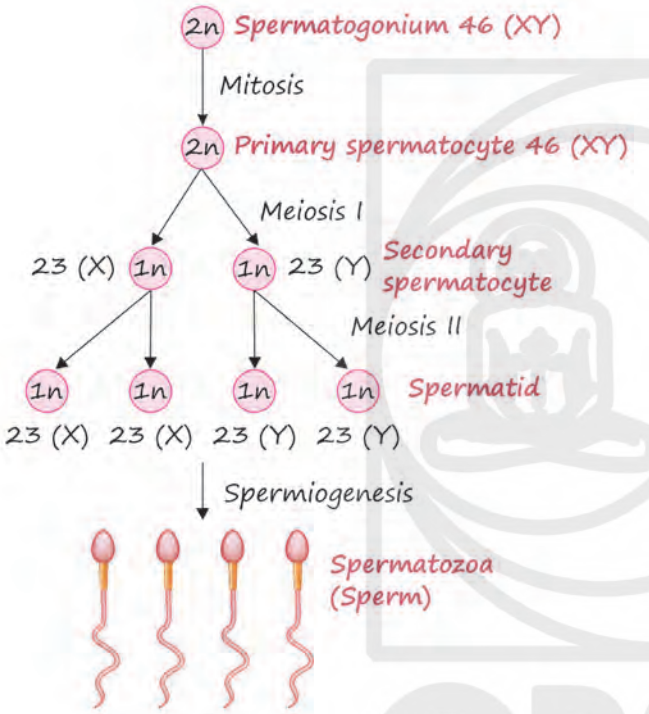
THEORY

1 Obstetrics

1. SPERMATOGENESIS AND OOGENESIS

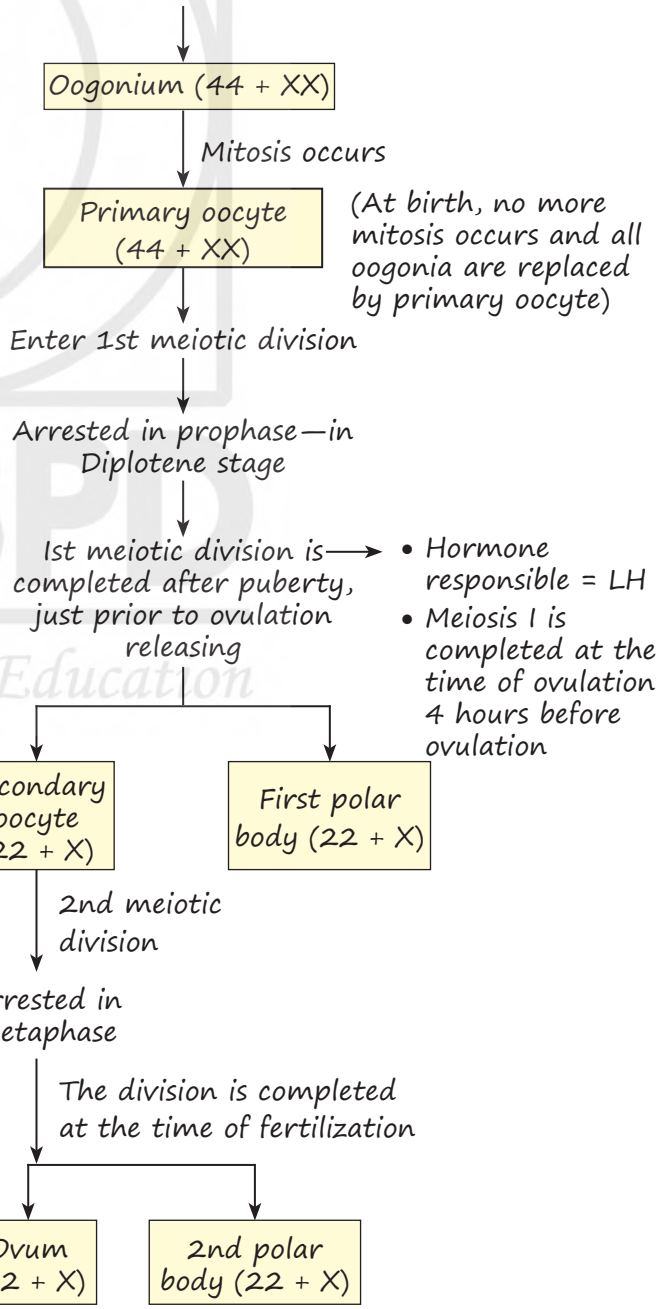
Spermatogenesis



Important Steps in Spermiogenesis

Spermatid	Sperm
Golgi apparatus	Acrosome cap[QQ]
Nucleus	Head
Mitochondrion	Middle piece
Centriole	Axial filament/tail

Oogenesis



Important One-Liners

Spermatogenesis

- Begins at puberty.
- Spermatogenesis takes place in seminiferous tubules
- Time taken for spermatogenesis: 74 days (70–74 days).
- Spermiogenesis: Transformation and maturation of spermatids to sperm. There is no mitosis or meiosis.
- Size of sperm: 50–60 microns
- Fertilizable life span: 48–72 hours.
- **Sperms attain Maturity:** Proximal part of Epididymis
- **Sperms attain Motility:** Distal part of Epididymis
- Time for spermiogenesis: 10–14 days
- Time for capacitation: 6–8 hours
- Site for capacitation: Female Reproductive tract—Begins in cervix
- Maximum occurs in-Fallopian tube

5. ANTENATAL CARE IN PREGNANCY

Antenatal visits

Ideal:

Till 28 weeks = 1/month

28–36 weeks = 1 in 2 weeks

≥36 weeks = 1/week

- WHO: 8 visits (minimum)
- Government of India:
  4 visits (minimum)
  1st visit: Within 12 weeks
  2nd visit: 14–26 weeks
  3rd visit: 28–34 weeks
  4th visit: 36 weeks-term

Caloric Requirement

Park = +350 kcal in all trimester

National guidelines: (Imp.)

T1 = +85 kcal/day ≃ negligible

T2 = +280 kcal/day ≃ 300 kcal/day

T3 = +470 kcal/day ≃ 450 kcal/day

ACOG/International Institute of Medicine (For INI-CET only)

T1 = 0 kcal/day

T2 = +350 kcal/day

T3 = +450 kcal/day

Recommended Weight Gain in Pregnancy

In normal BMI females = 11–12.5 kg

In females with low BMI (thin females) = 12.5–18 kg

In females with BMI >30 (obese) = 7 kg (5–9 kg)

ANTENATAL CWARE IN PREGNANCY

Folic Acid in Pregnancy

To prevent NTD = 400 mcg/day; (0.4 mg)
Start 1 month before conception and continue till 3 months after conception

To prevent recurrence of NTD = 4 mg/day; start 3 months before conception or from the day a female plans pregnancy and 3 months after conception

To treat folic acid deficiency = 1 mg/day

In diabetic patients who are pregnant = 400 mcg/day

In patients on antiepileptic =
Before conception: 400 mcg/day
After conception: 4 mg/day
OR 2nd guideline
If patient is on valproic acid and phenytoin: 4 mg/day
Other antiepileptic drugs = 400 mcg/day

To treat sickle cell anemia = 5 mg/day

RDA in Pregnancy

Iodine (I_2) req. = 250 mcg/day

Calcium req. = 1000 mg/day

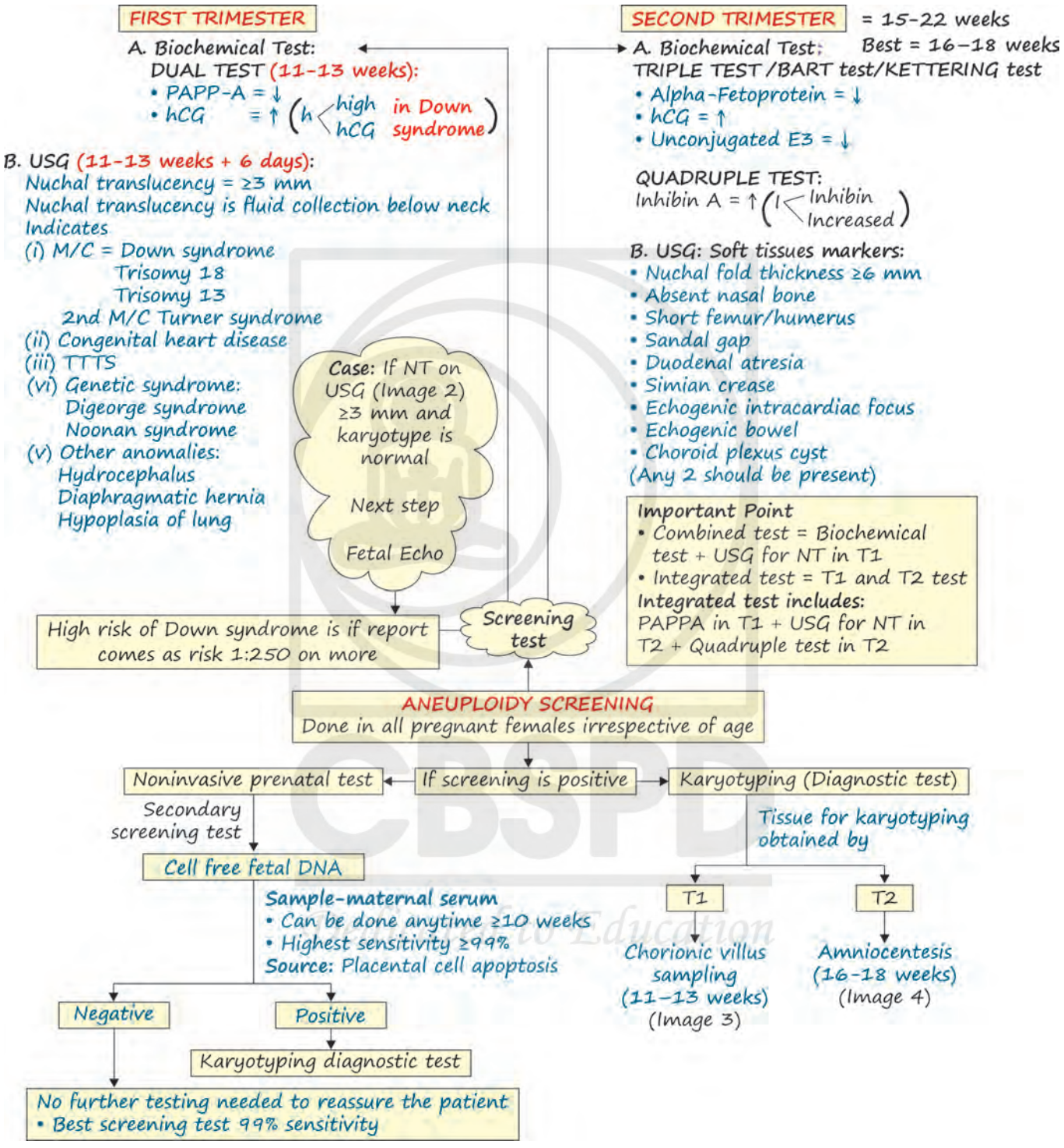
Carbohydrate req. = 175 g/day

Protein req. = Nonpregnant = 45 g/day
T1 = NIL (No additional requirement)
T2 = +10 g
T3 = +20 g

Fat req. = 28 g/day

Refer to Table 9 of Obs for detailed Nutritional requirement in pregnancy and lactation

7. ANEUPLOIDY SCREENING



IMP PYQs

One single USG marker in T2 which if present in isolation has highest risk of aneuploidy.
Nuchal skin fold thickness > short femur.
One single USG marker in T2 which if present in isolation has least risk of aneuploidy:
Choroid plexus cyst.

95% cases of down syndrome are due to Nondysjunction. It is not inheritable.
If down syndrome is d/t 21/21 translocation: Recurrence rate: 100%

Important Images

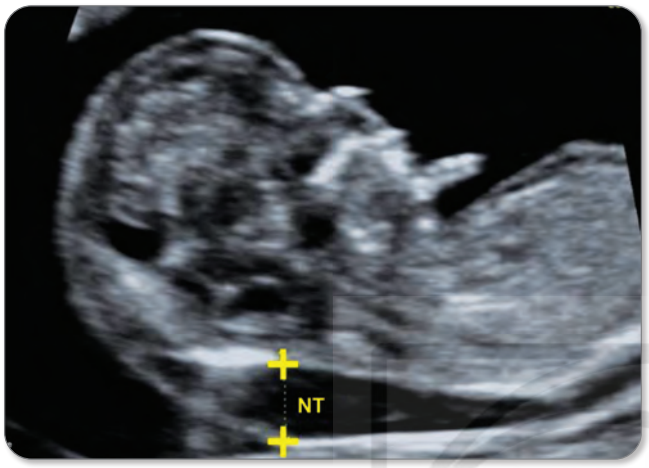


Image 02: Nuchal translucency

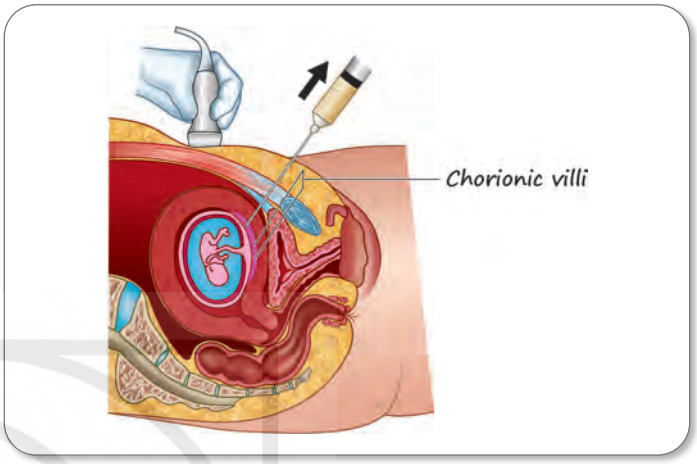


Image 03: Chorionic villi sampling

Nuchal translucency:
(Fluid filled area below neck)

Chorionic villus sampling:

- Done ≥10 weeks
- Sample: Trophoblast if done at <9 weeks Leads to Oromandibular defects and limb defects
- Fetal loss = 1%
- M/C complication of CVS = fetal loss
- Faster results: Within 48 hours
- Less reliable (due to placental mosaicism)

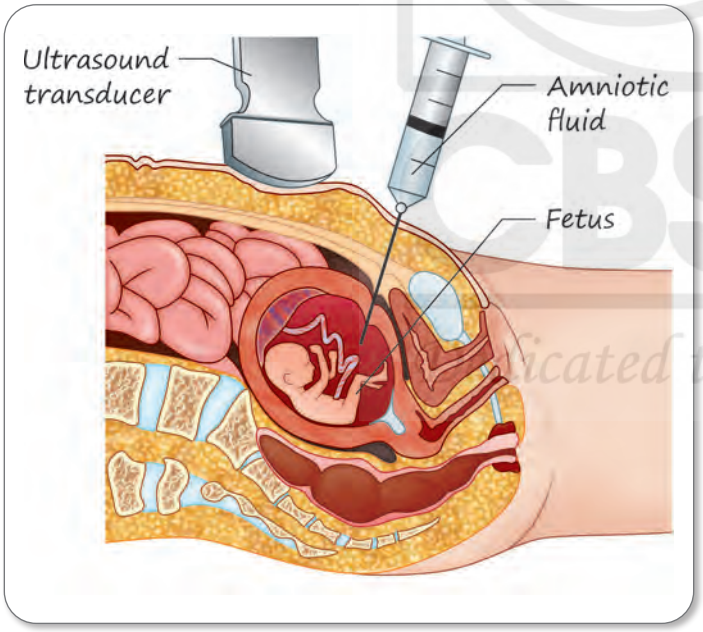


Image 04: Amniocentesis

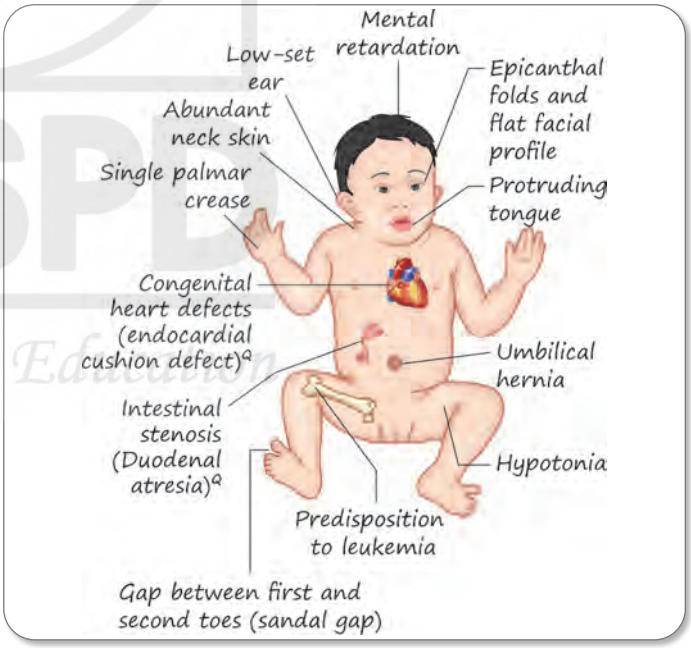


Image 05: Down syndrome

Amniocentesis:

- Sample: Amniocytes OR dermal fibroblast
- Done at = 16–18 Weeks
- Early amniocentesis = Between 11 and 14 weeks is not done as it causes fetal loss
- Fetal loss = <0.5%
- Result takes = 10–14 days;
- More reliable then chorionic villus sampling

Down syndrome:

Babies have

- Short stature
- Mental disability
- Endocardial cushion defect (M/C Heart defect seen in down syndrome) > VSD > ASD

Also know

Alpha fetoprotein (Table 17)

- Synthesized by fetal yolk sac, GIT and Liver
- Maximum levels are seen in fetal serum and amniotic fluid.
- In maternal serum AFP levels are tested between 15 and 20 weeks (best = 16 and 18 weeks)
- AFP starts increasing by 13 weeks and highest at 32 weeks.
- AFP levels are high for many conditions like neural tube defects, abdominal wall defect, pilonidal sinus, etc.
- Levels ≥2–2.5 multiples of median (MOM) indicate high levels
- ℚℚWherever only AFP levels are high: Next step is
  - Do USG (Level 2 scan)

Mnemonic

- Conditions where AFP is decreased: Diabetic–maternal diabetes
  - G = Gestational Trophoblastic disease
  - O = Maternal obesity
  - A = Abortion
  - T = Trisomy

Anencephaly (Image 06, 012)

- M/C = NTD. It is a cranial defect
- Brain tissue herniates out without covering of scalp, meninges and hair
- It can be detected earliest in USG at 10 weeks Best at 14 weeks
- There is polyhydramnios: D/t absent fetal swallowing
- Higher association with female fetal sex
- It can lead to both preterm labor and post-term labor
- Post-term labor > preterm labor
- Recurrence risk after 1 baby with NTD = 4%
- Recurrence risk after 2 babies with NTD = 10%

Encephalocele (Image 07)

- It is also a cranial defect
- Here brain tissue herniates out covered by meninges and hair

Craniorachischisis (Image 06)

- Means cranial and caudal defect seen to getter
- Fetus has both anencephaly and spina bifida.

Image 06: Anencephaly

Image 07: Encephalocele

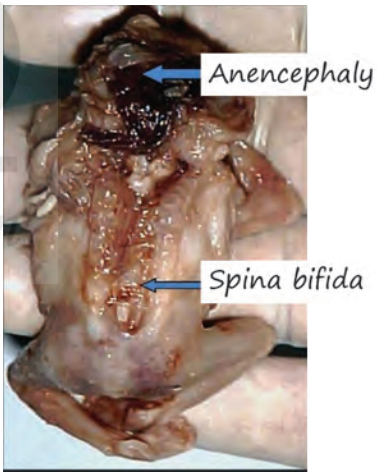


Image 08: Craniorachischisis

Important One-Liners

Placenta

- Normal attachment of placenta: Upper Uterine Segments
- Placenta if attached to lower uterine segment: Placenta previa
- Best time to do ultrasound to detect placenta previa: T3
- Formation of placenta is through chorionic villi
- Primary villi: Formed by D13
- Secondary villi: Formed by D16
- Tertiary villi: Formed by D17
- Three terms to describe human placenta
  1. Hemochorial
  2. Discoidal
  3. Deciduate
- Starts forming by = 6 weeks
  Anatomical development is completed by = 16 weeks
  AT >10 weeks: Functional maturation occurs
- Placenta circumference = 15–20 cm (can be up to 22 cm)
- Placenta thickness = 2.5–4 cm
- Weight of Placenta = 500 g
- Placenta has two circulations
  1. Uteroplacental circulation in intervillous space
     - VIA spiral artery
     - Established by D-15 after fertilization
     - Uteroplacental blood flow @ term = 500–750 mL/min.
  2. Feto-placental circulation in villi
     VIA = Umbilical artery, umbilical vein
     Established by D–17 after felicitation
- Ratio of weight of placenta: Fetus at term = 1:6
- At 17 weeks: Weight of placenta is equal to weight of fetus

Placentomegaly if thickness of placenta >4 cm	Small placenta
• Seen in ○ Maternal diabetes ○ Fetal high cardiac output states, e.g., anemia/Hydrops ○ Intrauterine infection syphilis^{Q} > CMV^{Q} ○ Molar pregnancy ○ TTTS ○ Placenta chorioangioma	Seen only in three conditions 1. Utero placental insufficiency 2. PIH 3. IUGR

Placental Anomalies

Description	Called
Cord attached to margin of placenta	Battledore placenta (Image O19)
Placenta divided into two lobes (equal) and connected by blood vessels	Placenta bilobata (Image O20)
Placenta divided into a small lobe and a big lobe and connected by blood vessels	Placenta succenturiate (Image O21)
Fetal side of placenta smaller than maternal side and separated by a valve like thickening	Circumvallate placenta (Image O22)
Fetal side of placenta smaller than maternal side and NO valve like thickening seen	Circummarginate placenta
Cord ends a few cm before placenta, blood vessels lose their felly and get attached to placenta separately	Velamentous insertion of cord (Image O23)

29. PREGNANCY-INDUCED HYPERTENSION (PIH)

Definitions

Terminology	Definition
Hypertension in pregnancy	BP ≥140/90 mm Hg on 2 occasions 4 hours apart. If BP ≥160/110 mm, then do not wait for 4 hours to repeat BP. BP should be repeated in 15 minutes and antihypertensive started.
Proteinuria	Excretion of protein ≥300 mg (0.3 g) in 24 hours or protein: Creatinine ratio ≥0.3, or urine dipstick ≥+1
Signs of End-organ damage	Any one of the following: • Platelet count <1 lakh • Liver enzymes raised ≥2 times its N value. • S:Creatinine ≥1.1 mg/dL. • Pulmonary edema • Visual symptoms/Headache
Chronic hypertension in pregnancy	A hypertensive patient conceives, so increase in BP seen before 20 weeks without proteinuria and without end- organ damage. BP does not come back to normal even after 12 weeks of delivery.
Pregnancy-induced hypertension	A normotensive patient conceives but during pregnancy due to placental pathology, BP increases. Increase is seen after 20 weeks of pregnancy. BP becomes normal within 12 weeks of delivery.
Gestational hypertension	PIH without proteinuria and end-organ damage. It is a provisional diagnosis.
Preeclampsia	PIH with either proteinuria or with signs of end-organ damage.
Eclampsia	Severe preeclampsia with new onset generalized tonic-clonic seizures or coma.
Chronic HT with superimposed preeclampsia	A female with chronic hypertension conceives, suddenly at 20 weeks of gestation develops any of the following: • BP becomes uncontrollable • New onset proteinuria • Signs of end-organ damage

Mild PE	Severe PE
BP ≥140/90 mm Hg but <160/110	BP ≥160/110 mm Hg
No signs of End-organ damage	Signs of end-organ damage present OR
No signs of impending eclampsia	Signs of impending eclampsia present

These are not criteria to differentiate between mild and severe PE:

- Proteinuria
- Oliguria
- IUGR

Also know

Early preeclampsia is PE at <34 weeks.

Signs and Symptoms of $MgSO_4$ Toxicity

1st sign: Absent knee jerk (10 mEq/L)

- Diaphoresis
- Slurring of speech
- At 12 mEq/L = Respiratory paralysis and respiratory arrest
- At 15 mEq/L = Cardiac conduction defect. Cardiac arrhythmias
- At 24 mEq/L = Cardiac arrest

Note:

- $MgSO_4$ can lead to decreased variability on CTG
- Oliguria is not a sign of $MgSO_4$ toxicity

Target BP:

- Systolic: 120–130 mm Hg
- Diastolic: 80–90 mm Hg.

Antihypertensive in Pregnancy

Indication: BP ≥160/110 mm Hg

NICE guidelines: BP ≥150/100 mm Hg
Antihypertensive in Pregnancy, Williams 26/ed.

Drugs used in severe preeclampsia	Drugs used for chronic hypertension	Absolutely C/I
1st line • I/V Labetalol (Maximum = 220 mg) • I/V Hydralazine (Maximum = 30 mg) • Oral Nifedipine	**1st line** • Oral Labetalol • Oral Nifedipine • Oral Methyldopa	• ACE inhibitor • Angiotensin Receptor Blocker • Diazoxide
Drugs which can be used: • Verapamil • Nitroglycerin • Nitroprusside • Nimodipine • Nicardipine • Ketanserin	**Drugs which can be used:** • CCB • Propranolol • Metoprolol • Hydrochlorothiazide (only at <20 weeks; never first line)	
Not used: Methyldopa as it is slow acting	**Not used:** Hydralazine	

DOC for refractory hypertension: Nitroprusside (Side effect = cyanide poisoning)

Also know

- Zuspan/Sibai regimen for giving $MgSO_4$ (Imp for INI-CET)
  - Loading: 4–6 g diluted in 100 mL I/V fluid (given over 15–20 minutes)
  - Maintenance = 1–2 g/hr, in 100 mL I/V infusion.
- First sign of preeclampsia = High BP.
- First organ to be affected in PIH = Kidneys
- On histopathological examination—Glomerular Endotheliosis
- Classification for hypertensive retinopathy: Keith-Wagener-Barker classification.
- On Fundal examination: Silver wiring appearance on papilledema
- Cause of seizure in eclampsia is—cerebral hypoxia and cerebral edema.
- Eclampsia can be antepartum/intrapartum/postpartum.
- M/C type of eclampsia: Antepartum eclampsia
- Worst prognosis: Antepartum eclampsia
- If C/section is done in patient of:
  - Preeclampsia: Epidural anesthesia
  - Eclampsia with seizures: General anesthesia
  - Eclampsia with seizures: Epidural anesthesia controlled.
- Note: FHR decreases during seizures—do not do C/section.

After seizure stops, fetal heart rate returns to normal in 5–10 minutes
If FHR is persistently decreased—suspect obruptio.

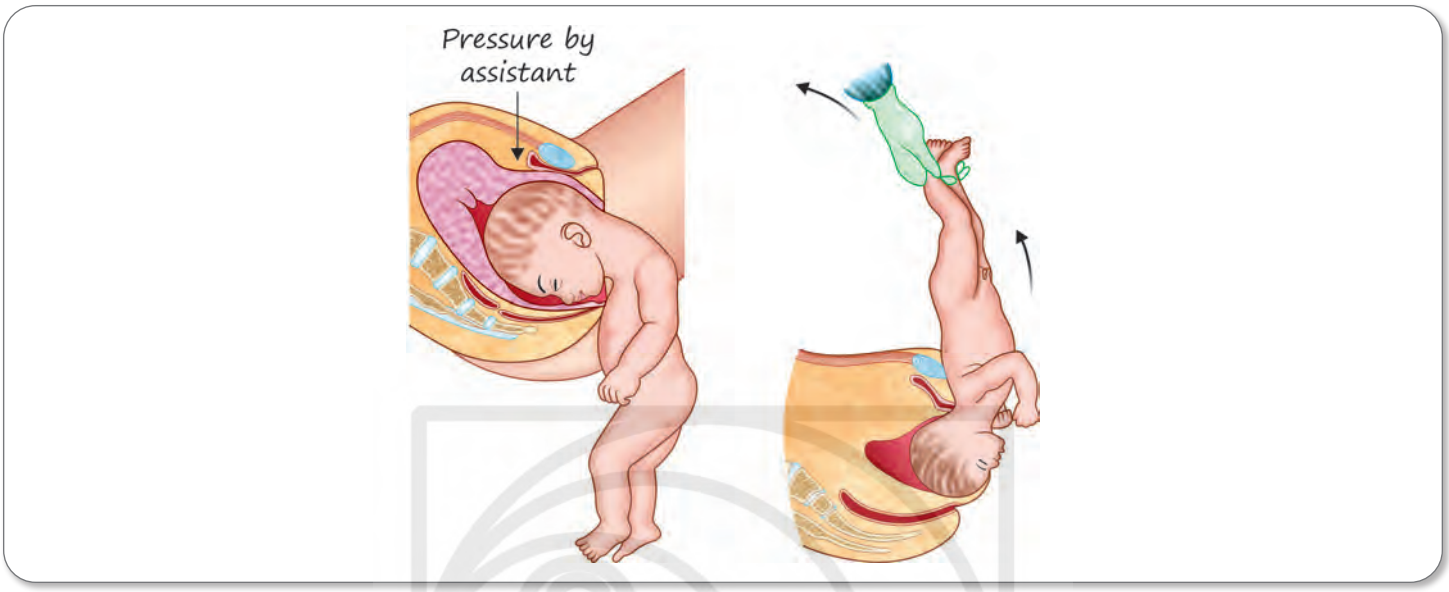


Image 092: Burn Marshall technique

In breech: Let the baby hang by its own weight. For delivery of Head Hold feet of baby and take it toward mother's abdomen.

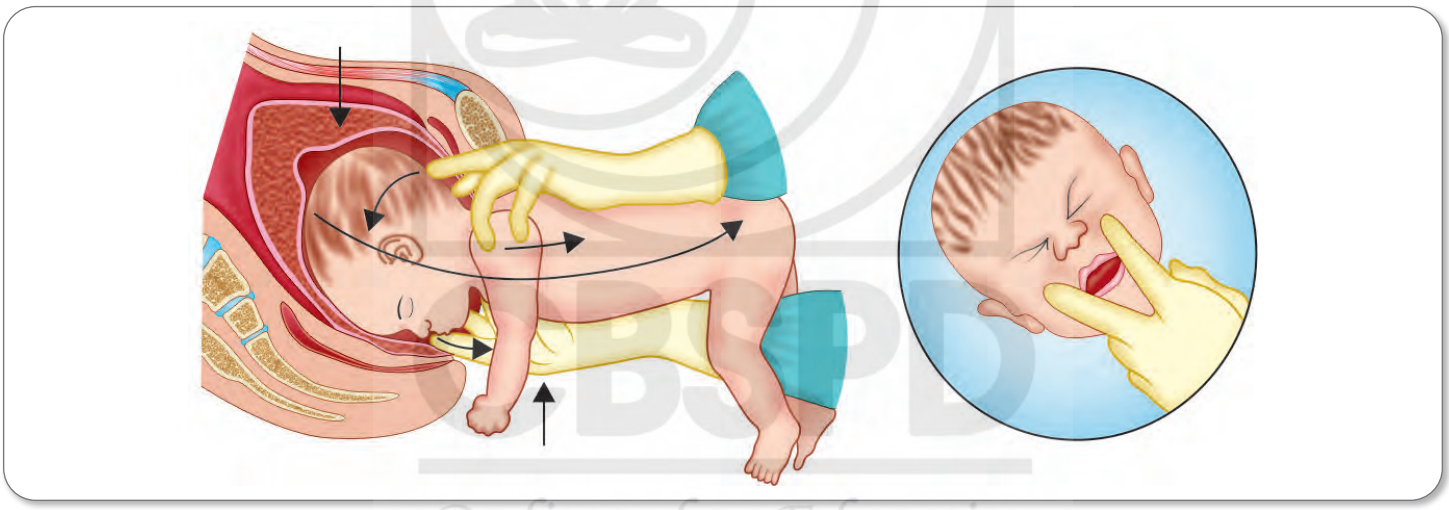


Image 093: Malar flexion and shoulder traction

Mauriceau–Smellie–Veit maneuver, also called Malar flexion and shoulder traction. Take one hand inside vagina—put two fingers one on each cheek of baby and two fingers of other hand on baby's shoulder and malar flexion with shoulder traction is done.

Image 094: Piper's forceps (Long forceps with sliding lock; only forceps with a perineal curve or it has a reversed pelvic curve)

Image 095: Prague maneuver

72. IMPORTANT IMAGES

Image 0104: Mayo scissors

Image 0107: Doyen retractor

Image 0105: Metzenbaum scissors

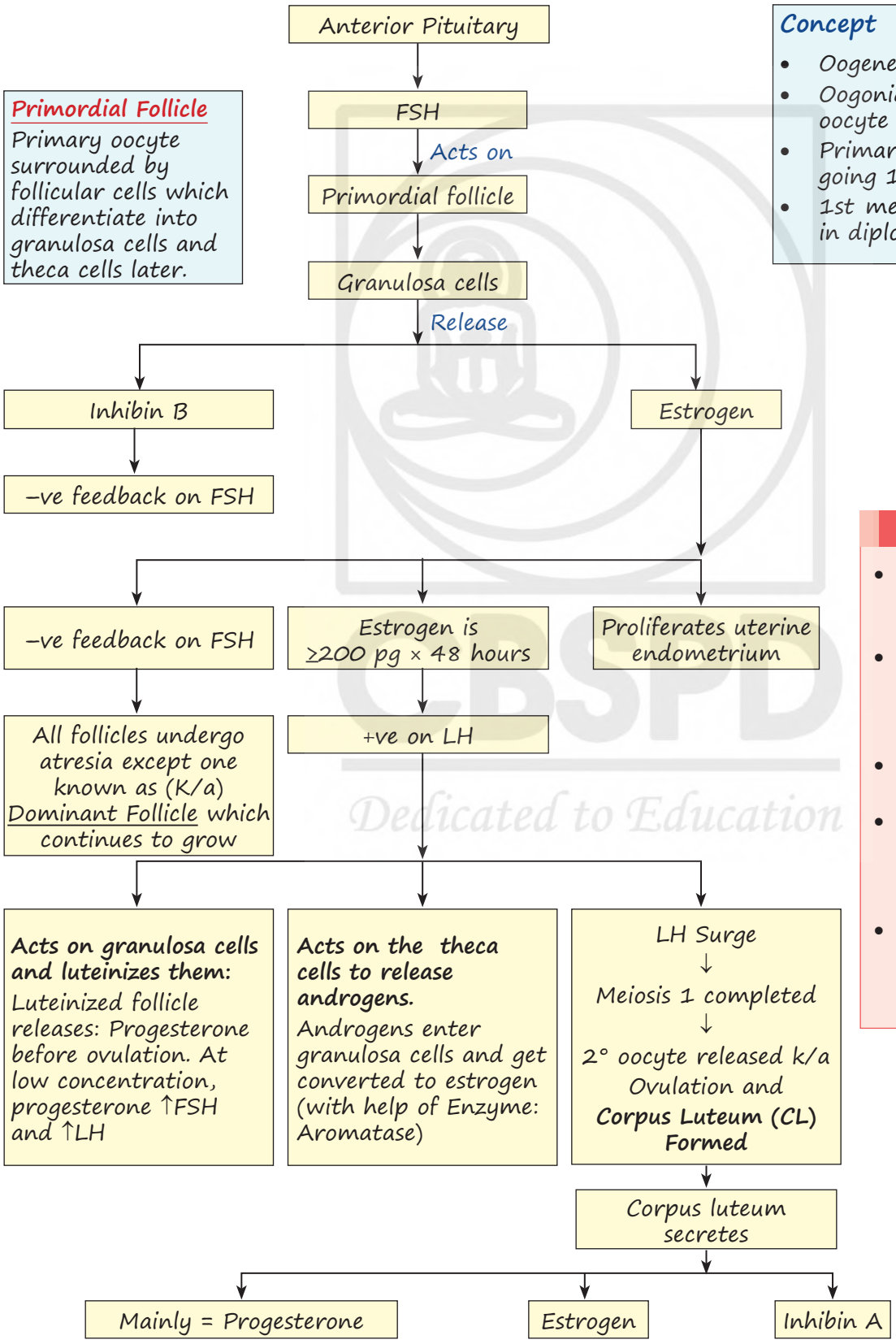
Image 0108: Ovum forceps

Image 0106: Allis forceps

Image 0109: Wrigley's forceps
(Outlet forceps; short forceps with English lock)

74. MENSTRUAL CYCLE

Flowchart of Menstrual Cycle



Primordial Follicle
Primary oocyte surrounded by follicular cells which differentiate into granulosa cells and theca cells later.

Concept
- Oogenesis begins in IU life.
- Oogonia change into primary oocyte (Mitosis)
- Primary oocyte starts undergoing 1st meiotic division.
- 1st meiotic division is arrested in diplotene stage of prophase.

PYQs
- Main hormone released by granulosa cells: Estrogen
- Main hormone released by granulosa cells of luteinized follicle: Progesterone
- LH surge is initiated by Estrogen.
- LH surge is maintained by Estrogen and Progesterone.
- Inhibin always inhibits FSH (–ve feedback on FSH) in both males and females. PYQ

76. PHASES OF MENSTRUAL CYCLE

Proliferative Phase

- D/t Estrogen
- Cervical mucus:
  - Profuse, watery
  - Thin
  - Elastic—can be stretched—Spinnbarkeit
- On microscope: Ferning seen on day 8 of cycle (Image G2)
- **Vaginal epithelial cells:** Superficial cells (Eosinophilic cells)—pink in color with pyknotic nuclei predominate (Image G3)
- **Endometrial biopsy:**
  Shows = Simple, tubular glands with nuclei at different levels → Pseudostratification (Image G9)
- **On USG** = Endometrium is in the form of thin white line (Image G6)

Late Proliferative Phase

On USG:

PYQs

Endometrium appears triple layered (Image G7) (If Q Says: Triple layered endometrium seen on USG in:
Best Ans = Late proliferative phase
Second best Ans: At time of ovulation

Ovulation

- Occurs d/t LH surge
- 1st sign of ovulation on endometrial biopsy: Subnuclear vacuolation (Image G10)

Phases of Menstrual Cycle

Secretory Phase

- D/t progesterone
- Cervical mucus:
- Becomes thick, scanty
- Cannot be stretched (Tack)
- Ferning is lost on day 18 of cycle

Vaginal Epithelial Cells

Intermediate cells: Basophilic cells with small nuclei and well-defined boundaries predominate (Image G4).

Endometrial Biopsy

Shows: Subnuclear vacuoles (Although it is first sign of ovulation but it is seen in early secretory phase) (Image G10)

On USG: Thick endometrium with posterior acoustic enhancement (Image G8).

Late Secretory Phase

On Endometrial Biopsy
↓
Highly coiled glands called CORKSCREW appearance/SAWTOOTH appearance seen with secretions in them (Image G11).

Application

Different characteristics of EB, vaginal cells and cervical mucus are used:

- To know whether ovulation occurred or not in cases of infertility (Test—done on day 21 and 22)
- As natural method of contraception in Billings method
- All progesterone containing contraceptives make cervical mucus thick impermeable by sperms and also prevent PID.

88. IMPORTANT IMAGES OF FIBROID, POLYP AND ADENOMYOSIS

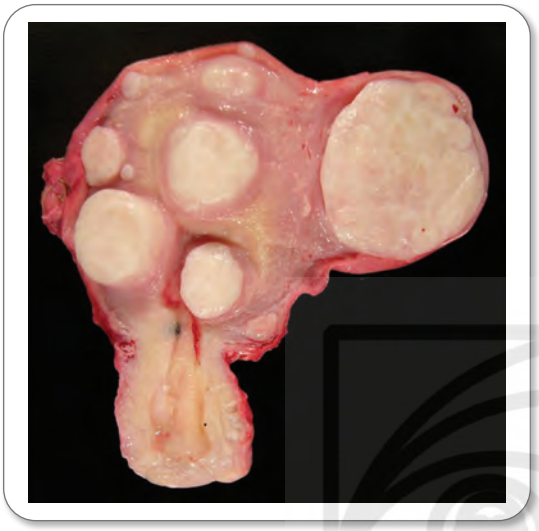


Image G21: Cut surface of fibroid Showing whorled appearance

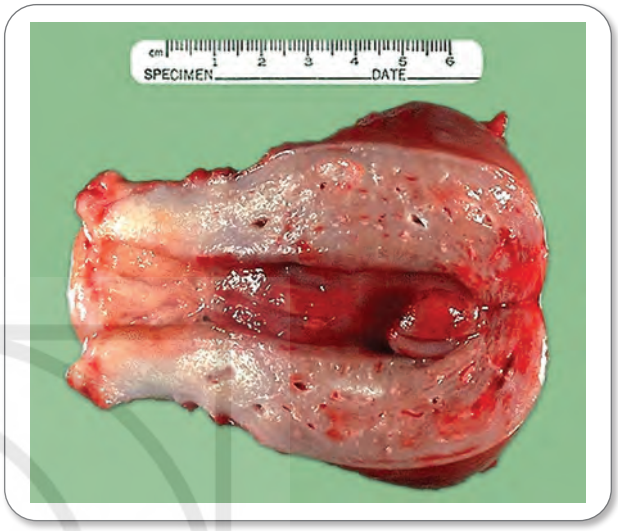
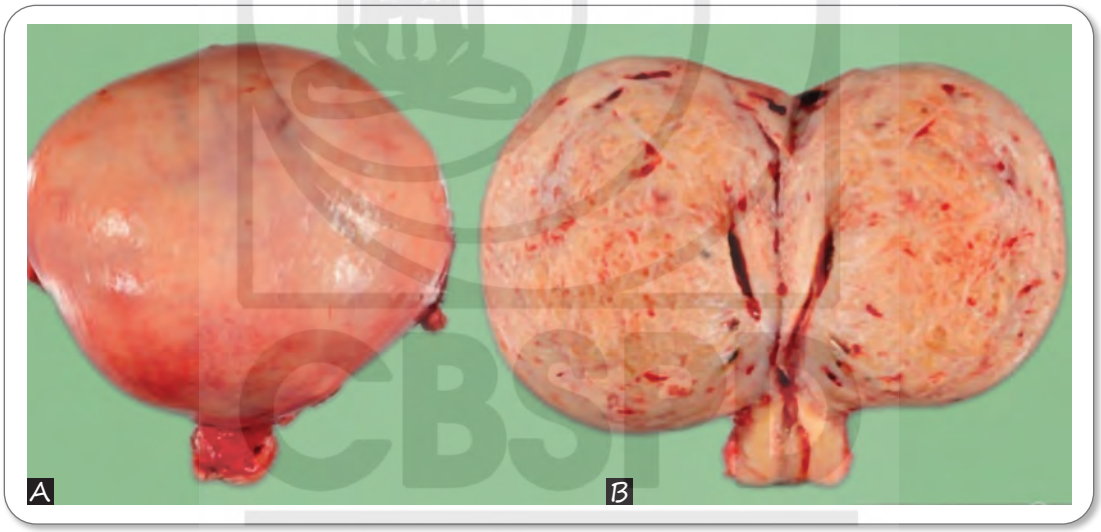


Image G22: Specimen of polyp red fleshy mass



Images G23A and B: A. Adenomyosis gross showing uniformly enlarged uterus; B. Cut surface showing multiple hemorrhages

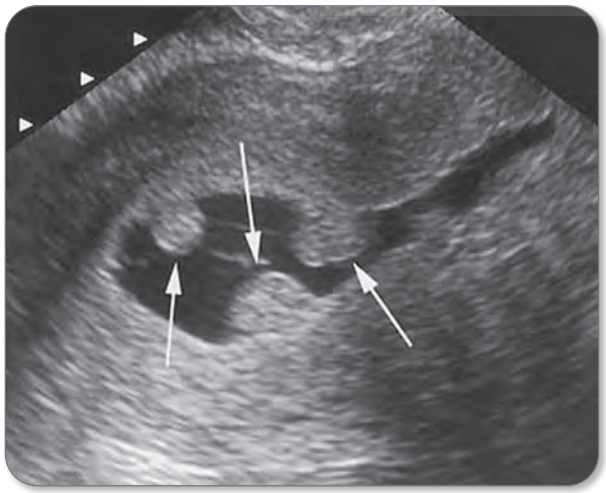


Image G24: USG of fibroid Showing echogenicity same as myometrium and arising from broad base

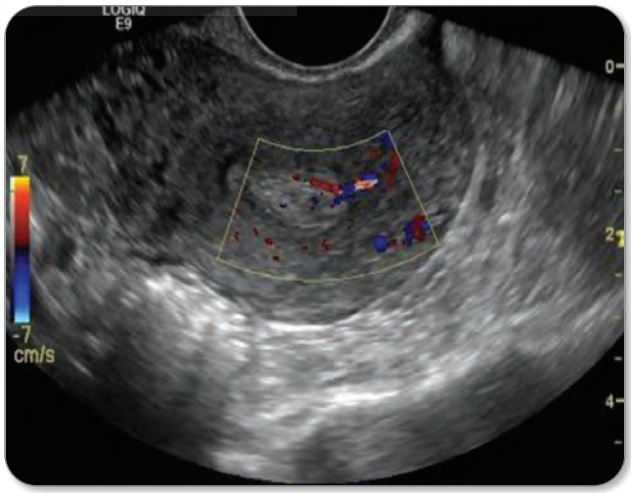


Image G25: **USG of polyp:** Showing feeding vessel sign

128. IMPORTANT PAP SMEAR IMAGES OF INFECTIONS

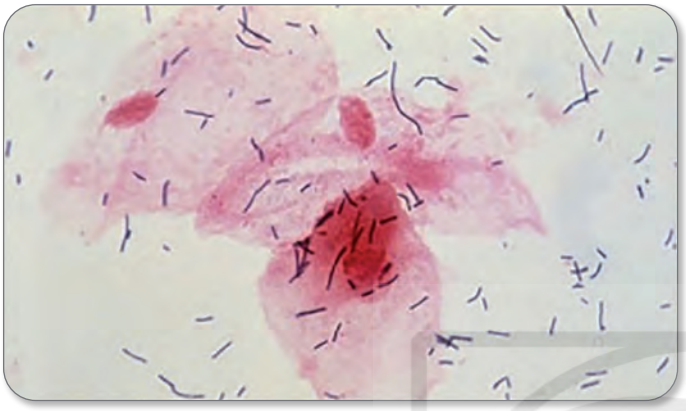


Image G106: Lactobacillus (Normal)

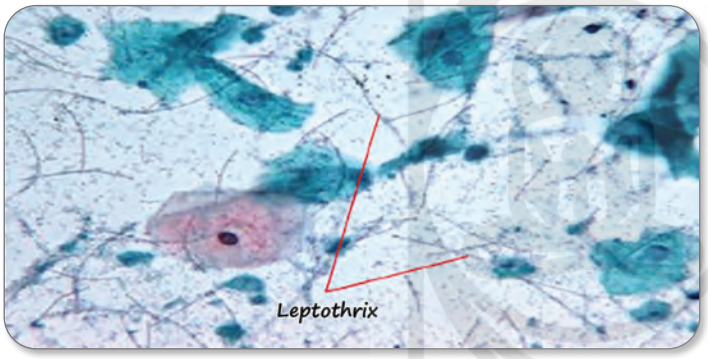


Image G107: Leptothrix

- Long version of lactobacillus
- May have trichomonas infection
- Called **spaghetti and meatball appearance**

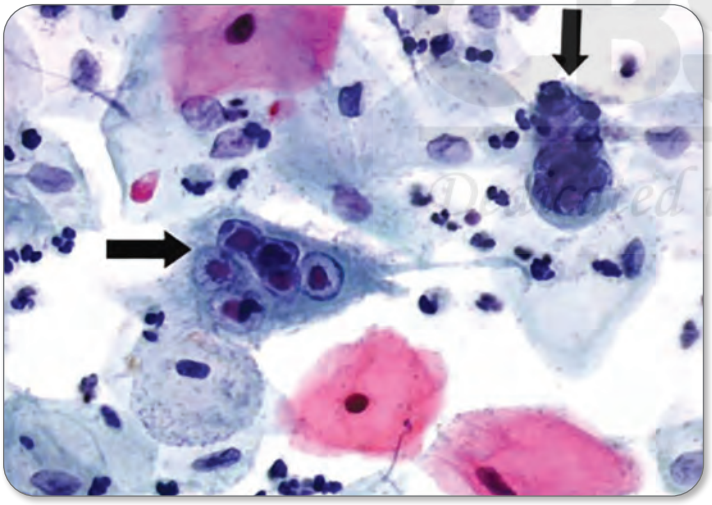


Image G108: Herpes simplex virus

- Multinucleate intermediate squamous cell
- Molding of nuclei
- Margination—big infusion in center, normal chromatins pushed to periphery
- Pink color intranuclear Cowdry type viral inclusions

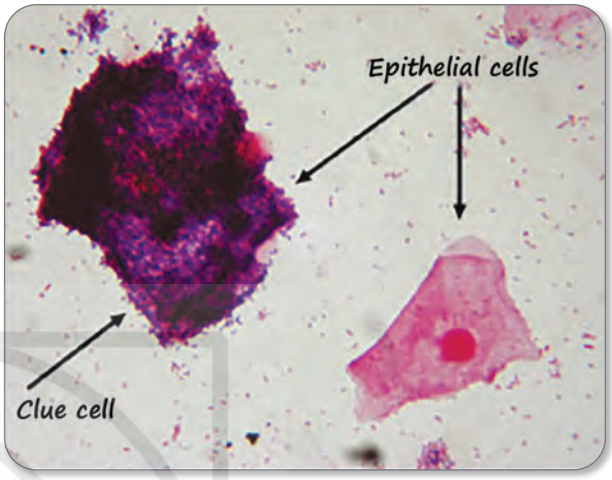


Image G109: Bacterial vaginosis

- **Clue cells**
  Vaginal epithelial cells that have bacteria adherent to their surfaces
- Absence of lactobacillus

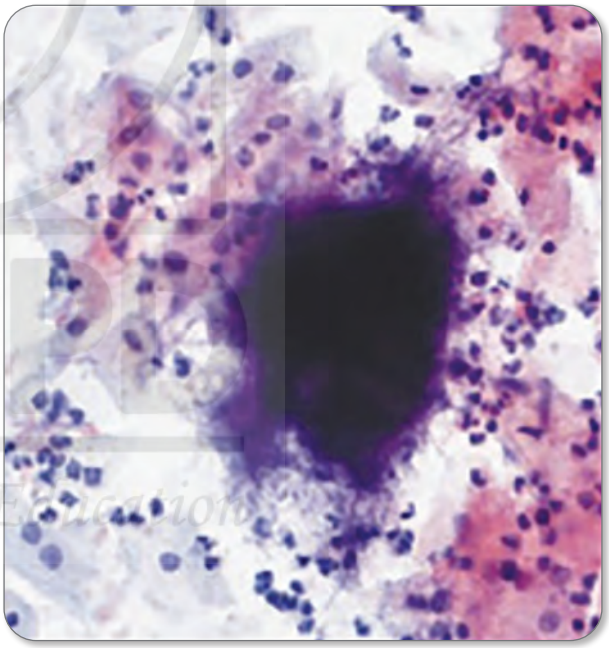


Image G110: Actinomyctes

- Cotton wool appearance
- Common in IUCD users

LATEST QUESTION PAPERS

- → NEET PG 2024 (SHIFT 1) (MEMORY-BASED)
- → NEET PG 2024 (SHIFT 2) (MEMORY-BASED)
- → NEET PG 2023 (MEMORY-BASED)
- → NEET PG 2022 (MEMORY-BASED)
- → NEET PG 2021 (MEMORY-BASED)
- → INI-CET NOVEMBER 2024 (MEMORY-BASED)
- → INI-CET MAY 2024 (MEMORY-BASED)
- → INI-CET NOVEMBER 2023 (MEMORY-BASED)
- → INI-CET MAY 2023 (MEMORY-BASED)
- → INI-CET NOVEMBER 2022 (MEMORY-BASED)
- → INI-CET JUNE 2022 (MEMORY-BASED)
- → INI-CET NOVEMBER 2021 (MEMORY-BASED)
- → INI-CET JUNE 2021 (MEMORY-BASED)
- → FMGE JANUARY 2025 (MEMORY-BASED)
- → FMGE JULY 2024 (MEMORY-BASED)
- → FMGE JANUARY 2024 (MEMORY-BASED)
- → FMGE 2023 (MEMORY-BASED)
- → FMGE JUNE 2022 (MEMORY-BASED)
- → FMGE DECEMBER 2021 (MEMORY-BASED)
- → FMGE JUNE 2021 (MEMORY-BASED)

NEET PG 2024 (SHIFT 1) (Memory-Based)

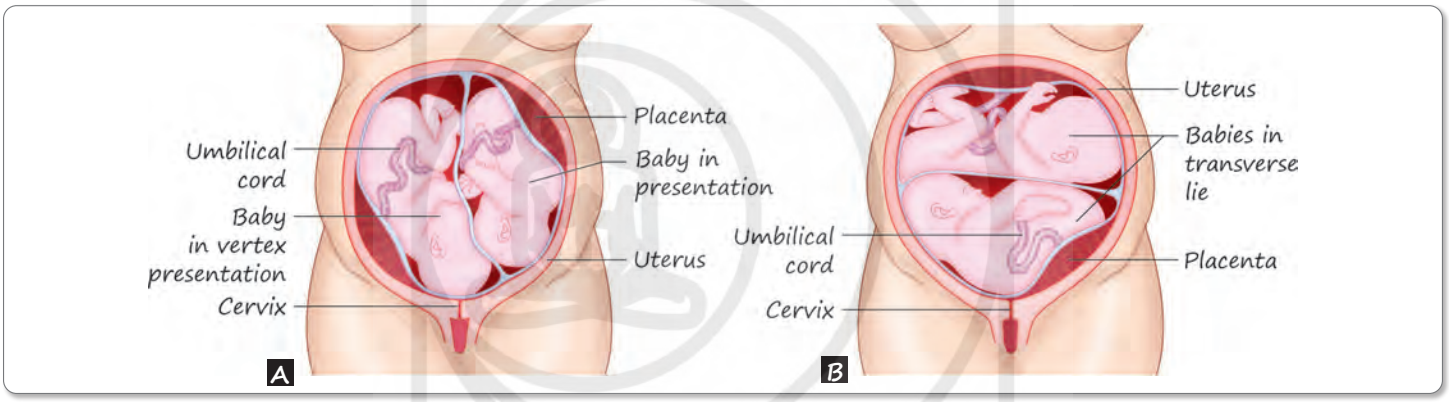
1. A patient who is a known case of bronchial asthma develops PPH. Which drug should be avoided in this case?

a. Oxytocin
b. Carboprost
c. Mifepristone
d. Ergometrine

Ans. b. Carboprost

Explanation: Carboprost = PGF-2α leads to bronchospasm.

2. With no other obstetric complications in twin pregnancy A and B, what will be the mode of delivery for A and B?

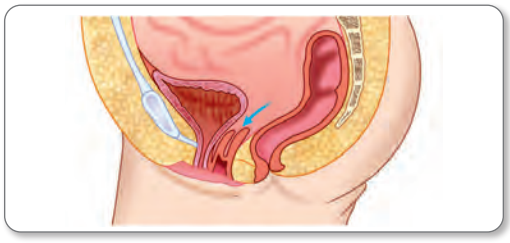


a. Vaginal delivery for first and LSCS for second
b. LSCS for first and vaginal delivery for second
c. Both LSCS
d. Both vaginal delivery

Ans. a. Vaginal delivery for first and LSCS for second

Explanation: In image A: Both twins cephalic = vaginal delivery.
In image B: Both twins transverse lie = cesarean section.
Always delivery depends on first twin. If first twin cephalic = vaginal delivery.
If first twin breech/transverse = c/section

3. A 60-year-old female presented with mass per vagina as shown in the image. What is the diagnosis?



a. Uterovaginal prolapse grade 3 with cystocele
b. Uterovaginal prolapse grade 3 with rectocele
c. Uterovaginal prolapse grade 3 with enterocele
d. Uterovaginal prolapse grade 3 with cystocele

Ans. c. Uterovaginal prolapse grade 3 with enterocele

4. The following table is used to diagnose a particular condition. What is it used for?

Anterior wall **Aa**	Anterior wall **Ba**	Cervix or cuff **C**
Genital hiatus **gh**	Perineal body **pb**	Total vaginal length **tvl**
Posterior wall **Ap**	Posterior wall **Bp**	Posterior fornix **D**

FMGE JUNE 2021 (Memory-Based)

445. An intern conducts a delivery. Immediately after delivery, mother experiences breathlessness, hypotension, tachycardia and collapses. P/v examination is normal and there is no excessive blood loss. Most probable diagnosis is:

a. PPH
b. Uterine inversion
c. DIC
d. Amniotic fluid embolism

Ans. d. Amniotic fluid embolism

446. Pelvis associated with persistent occipito posterior position is:

a. Android pelvis
b. Anthropoid pelvis
c. Platypelloid pelvis
d. Gynecoid pelvis

Ans. b. Anthropoid pelvis

447. A female has previous history of cesarean section and prolonged labor. She is hypotensive, fetal heart sounds cannot be heard and fetal parts are palpable superficially. The likely diagnosis is:

a. Active labor
b. Uterine rupture
c. Hydramnios
d. Abruptio placentae

Ans. b. Uterine rupture

448. A 32 weeks pregnant female complains of vaginal bleeding. On P/A examination, uterus is tender and fetal heart sounds are absent. Likely diagnosis is:

a. Preterm labor
b. Abruptio placentae
c. Placenta previa
d. Uterine rupture

Ans. b. Abruptio placentae

449. A pregnant female visits antenatal OPD for first time at 18 weeks of pregnancy. Her fundal height corresponds to 16 weeks . The obstetrician advises USG. Which of the following is likey to be seen in the USG?

a. Fetal renal agenesis
b. Fetal anemia
c. Anencephaly
d. Bartter syndrome

Ans. a. Fetal renal agenesis

450. A 25-year-old P1L1 delivered 12 weeks ago and gives history of continuous heavy bleeding per vaginum. She has h/o dilatation and curettage in some private hospital. The most likely explanation for bleeding is:

a. It is normal lochia
b. Patient has PPH
c. Patient has developed DIC
d. Patient has developed gestational trophoblastic neoplasia

Ans. d. Patient has developed gestational Trophoblastic Neoplasia

451. A 25-year-old primigravida female is on lithium for treatment of her psychiatric illness for past 2 years. The m/c anomaly seen in fetus whose mother is on lithium during pregnancy is

a. VSD
b. PDA
c. Ebstein anomaly
d. NTD

Ans. c. Ebstein anomaly

452. A 26-year-old female with mechanical valve and on warfarin therapy has her pregnancy test positive. The best advice to her is:

a. Continue warfarin throughout pregnancy
b. Take heparin instead of warfarin
c. Discontinue all anticoagulants in pregnancy
d. warfarin is contraindicated in pregnancy and lactation

Ans. b. Take heparin instead of warfarin

453. The complication associated with IV bolus injection of oxytocin is:

a. Hypoglycemia
b. Hypotension
c. Hyperglycemia
d. Hypertension

Ans. b. Hypotension

ONE Touch Obstetrics & Gynecology

For NEET PG/NEXT/FMGE/INI-CET

Theory—A concise form of text covered in just 225+ pages. Most important points to remember are given for the last-minute revision. Text of entire book is presented in the form of Tables, Boxes, Flowcharts, and Illustrations for easy recalling.

IMP PYQs

- Mode of delivery in Rh negative pregnancy vaginal delivery
- In Rh negative pregnancy = Early cord clamping done
  If Q specifically says: Indirect Coombs test +ve in Rh negative pregnancy: Do delayed cord clamping
  If ICT is –ve: Do early cord clamping
- Test done to calculate dose of Anti D: KLEIHAUER BETKE Test
- Reagent: Citric and phosphate buffer
- 300 mcg of Anti D can neutralize 30 mL of fetomaternal Hmg or 15 mL of fetal RBC

Important PYQs—Topic-wise coverage of previous year Qs for giving an exam-centric preparation approach.

Bishop Score

Mnemonic	Parameter	0	1
Delhi	Dilatation of cervix	Closed	1–2 cm
Police	Position of cervix	Posterior	Mid
Employed	Effacement of cervix	30%	40–50%
Special	Station of fetal head	Above –2	–2 station
Commodities	Consistency of cervix	Firm	Medium
Score	≤5 = Poor score: Ripening should be done before IOL ≥6 = IOL can be done ≥9 Maxm success of IOL		

Tables and Flowcharts—Frequently asked points and clinical correlates are tabulated for easy learning and more visual impact for long-term memory.

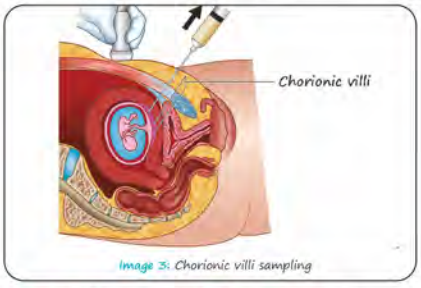


Image 3: Chorionic villi sampling

Clinical Images and Illustrations—Clinical images and other illustrations have been supplemented with the text for better and easy understanding of the concepts.

Important One-Liners

- Events prior to fertilization
  - Capacitation
  - Binding to zona pellucida
  - Acrosomal reaction
  - Cortical reaction
  - Zona reaction
- Capacitation provides ability to sperm for acrosomal reaction and to bind to zona pellucida

Important One-Liners—Must know points have been covered under the Important One-liner boxes for quick recall before exam.

Last 5 years' Exam Questions—450+ Qs of last 5 years' exam question papers up to Jan 2025 (FMGE Jan 2025, INI-CET Nov 2024 and NEET PG 2024) have been provided to develop an idea about the pattern of questions and also to know about the recently asked topics.

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Sakshi Arora Hans, *MBBS, DGO from MLN Medical College, Allahabad,* possesses a vast experience of teaching for more than a decade. She is famous for her 'Simplified Approach' toward Obstetrics and Gynecology. She has been playing an instrumental role in shaping the careers of thousands of medicos and nursing students in the country and abroad. She is popularly known as "Your Midwifery Madam". She excels at helping students clear the entrance exams, and is also widely known for her dedication and impeccable work ethics. She is a leading author of the two most popular titles among PGMEE aspirants for the last 18 years. She is a national level faculty for Marrow & Nursing Next Live.

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