DIAGNOSIS OF PREGNANCY

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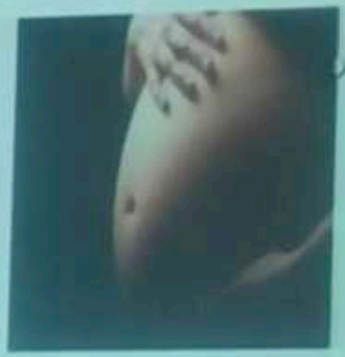
OBG

MENSTRUAL AGE

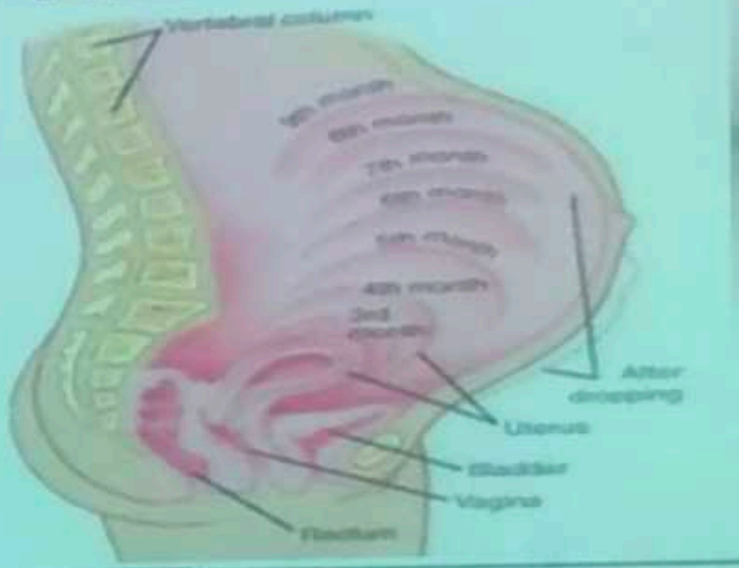


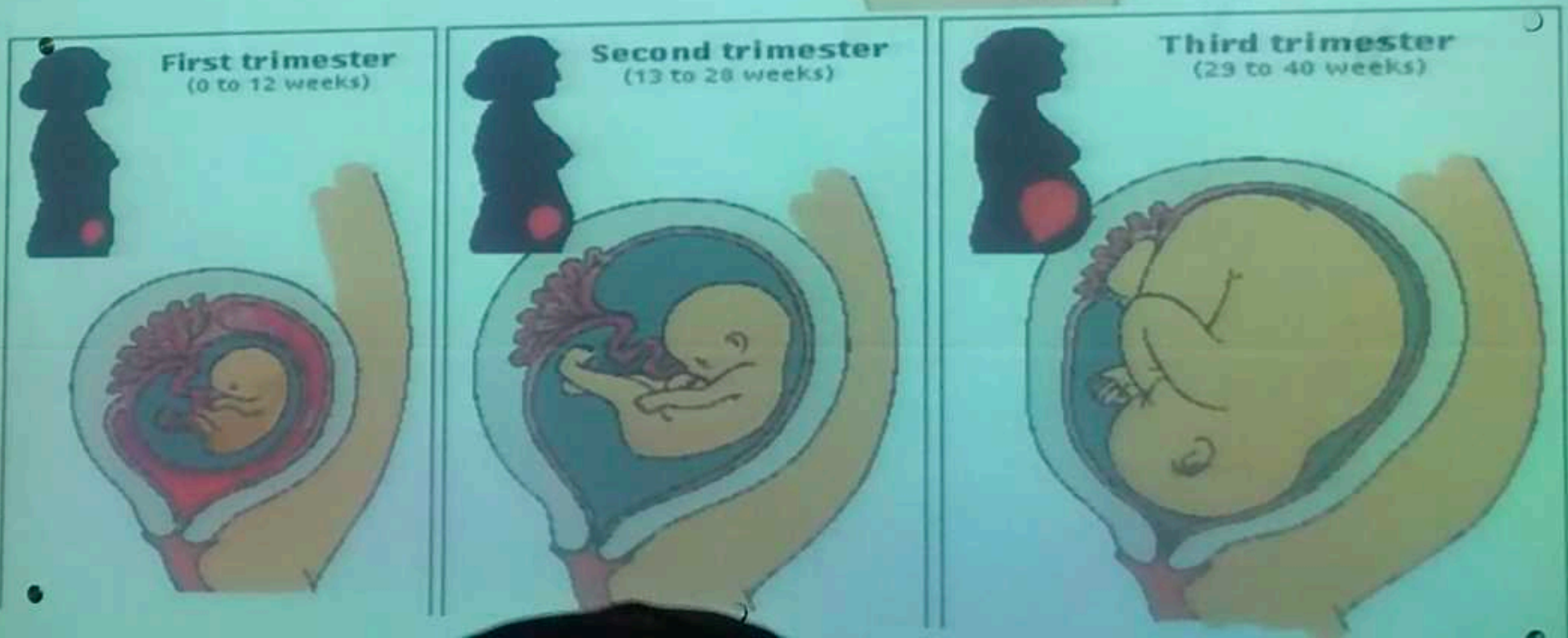
- Also known → **GESTATIONAL AGE**
- From the first day of the last menstrual period…
- **9 MONTHS AND 7 DAYS**
- **280 DAYS**
- **40 WEEKS**

- FIRST TRIMESTER → **1ST 12 weeks**
- SECOND TRIMESTER → **13 – 28 weeks**
- THIRD TRIMESTER → **29 – 40 weeks**

DIAGNOSIS THE PREGNANCY

- In first trimester
- In second trimester
- In third trimester





FIRST TRIMESTER (FIRST 12 WEEKS)

❖Subjective Sentence

- Amenorrhoea – Abrupt cessation of menstruation at 4th week
- Morning sickness (Nausea and vomiting) from 4th – 14th week
- Frequency of micturition (Bladder irritability
- Breast discomfort
- Fatigue

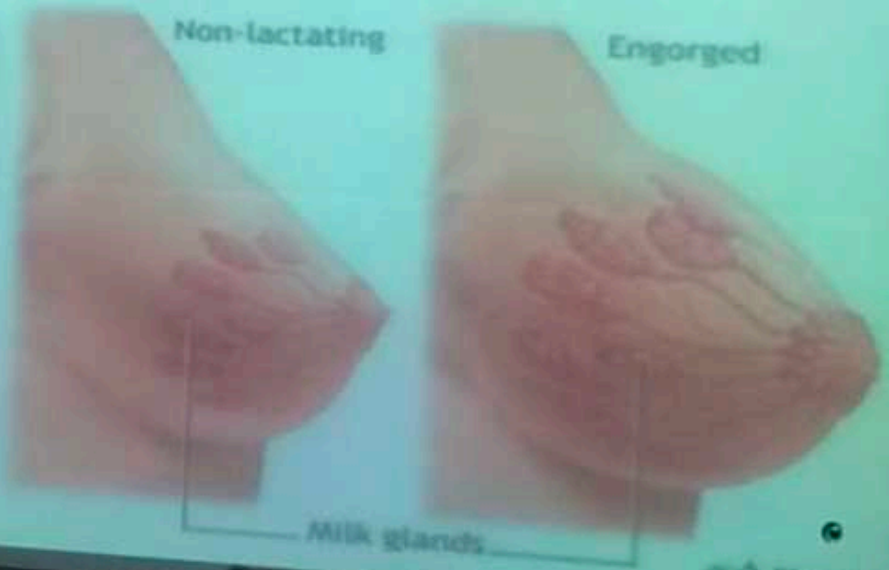
SECOND TRIMESTER (13-28 WEEKS)

❖**Symptoms** :

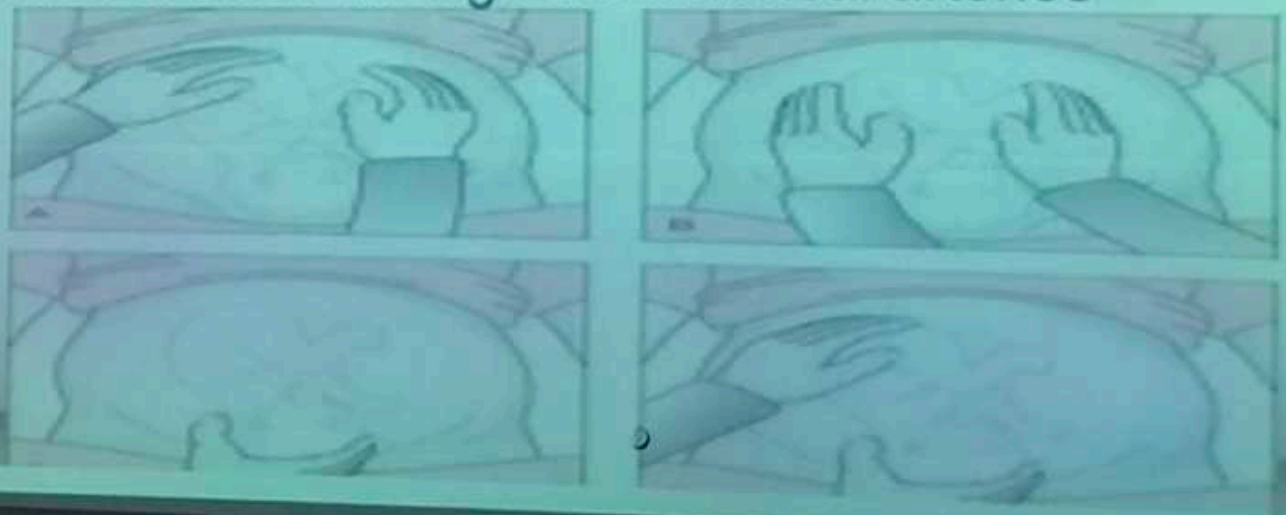
- subjective symptoms –such as nausea, vomiting and frequency of micturition usually subside
- Quickening (feeling of life)
- Progressive enlargement of the lower abdomen

❖General Examination

- Chloasma : Pigmentation over the forehead and cheek
- Breast changes - enlarged with prominent veins,
  - Secondary areola, Montgomery's tubercles are prominent and extended, Colostrum



- **Abdominal examination**
- Inspection
- Palpation
- Auscultation - **Uterine souffle -** soft blowing and systolic murmur heard low down at the sides of the uterus, best on the left side; **Funic of fetal soufflé** is due to rush of blood through the umbilical arteries



LAST TRIMESTER (29-40 WEEKS)

❖**Symptoms**

(1) Amenorrhoea persists

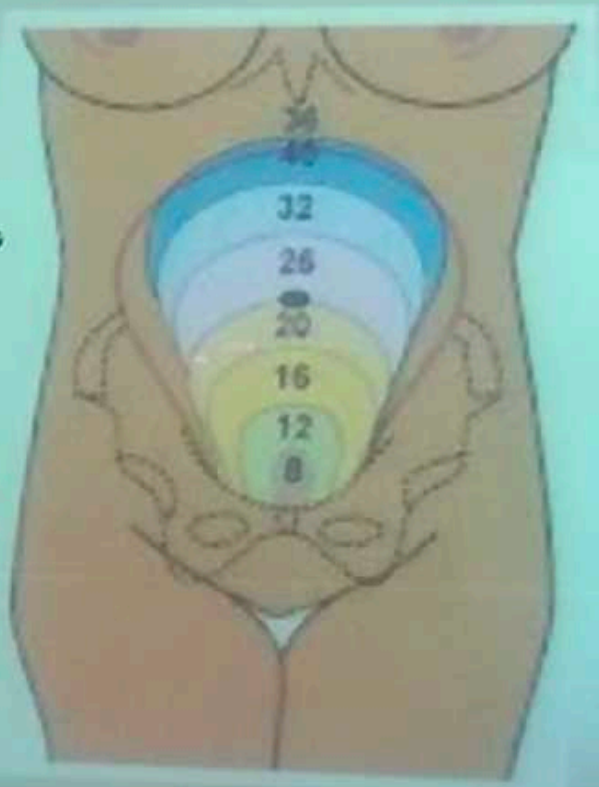
(2) Enlargement of the abdomen is progressive

(3) Lightening – At about 38th week

(4) Frequency of micturition

(5) Fetal movements

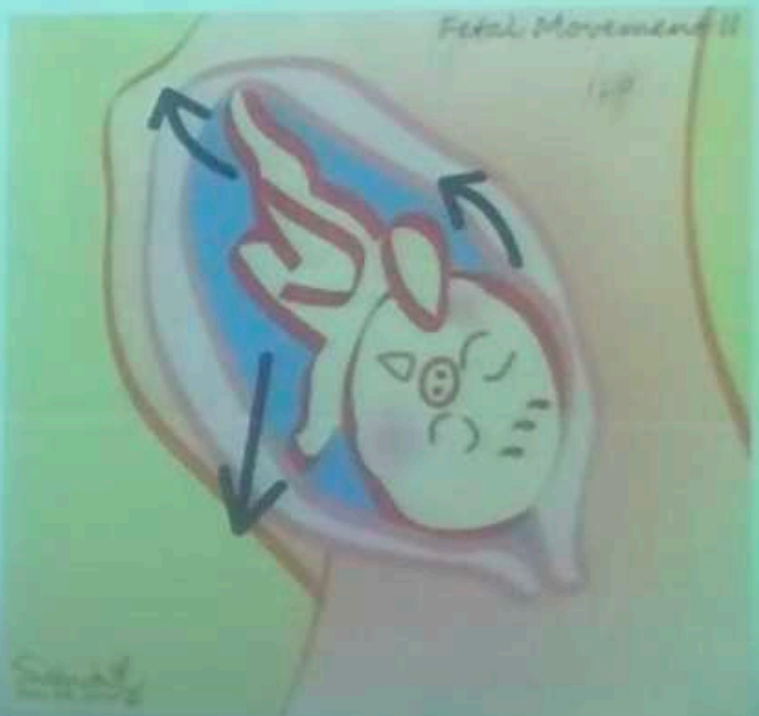
- **Fundal height**



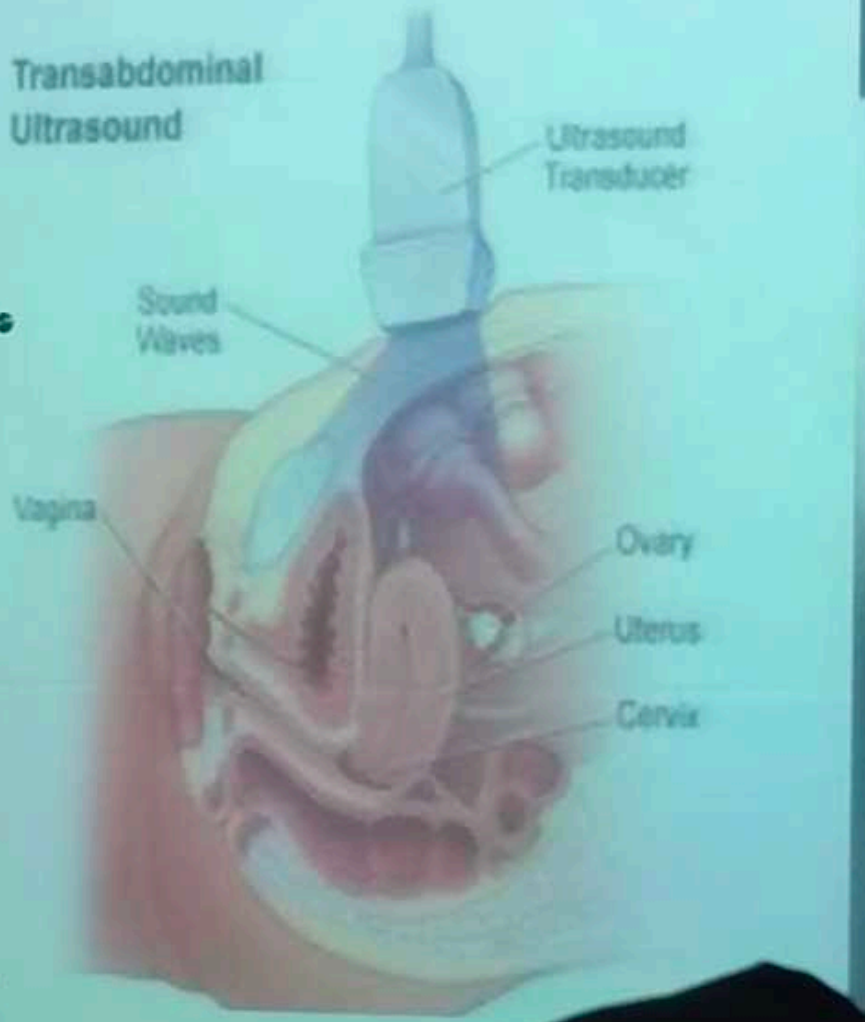
- **Symphysis fundal height (SFH)** The upper border of the fundus is located by the ulnar border of the left hand and this point is marked

- **Braxton-Hicks** contractions are more evident.

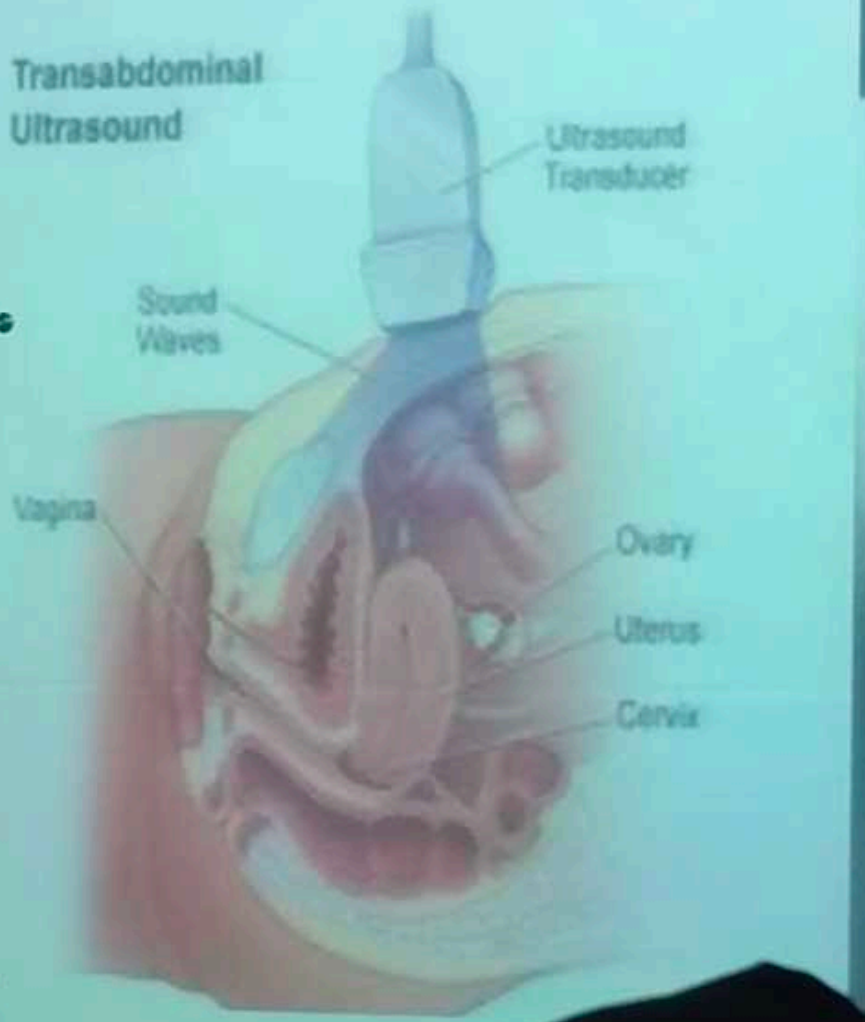
- **Fetal movements** are easily felt



• Sonography


Transabdominal
Ultrasound
Ultrasound
Transducer
Sound
Waves
Vagina
Ovary
Uterus
Cervix

• Sonography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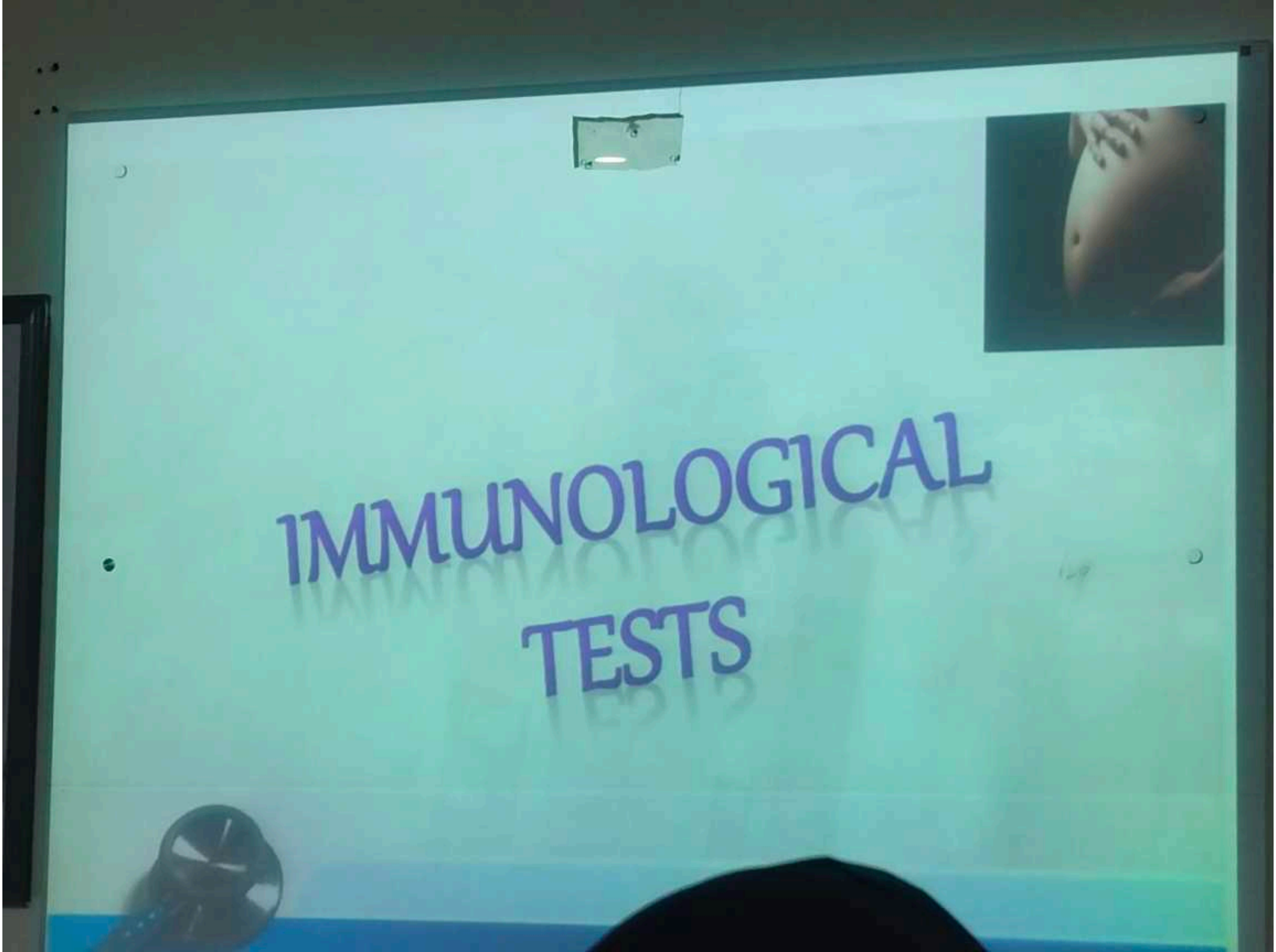
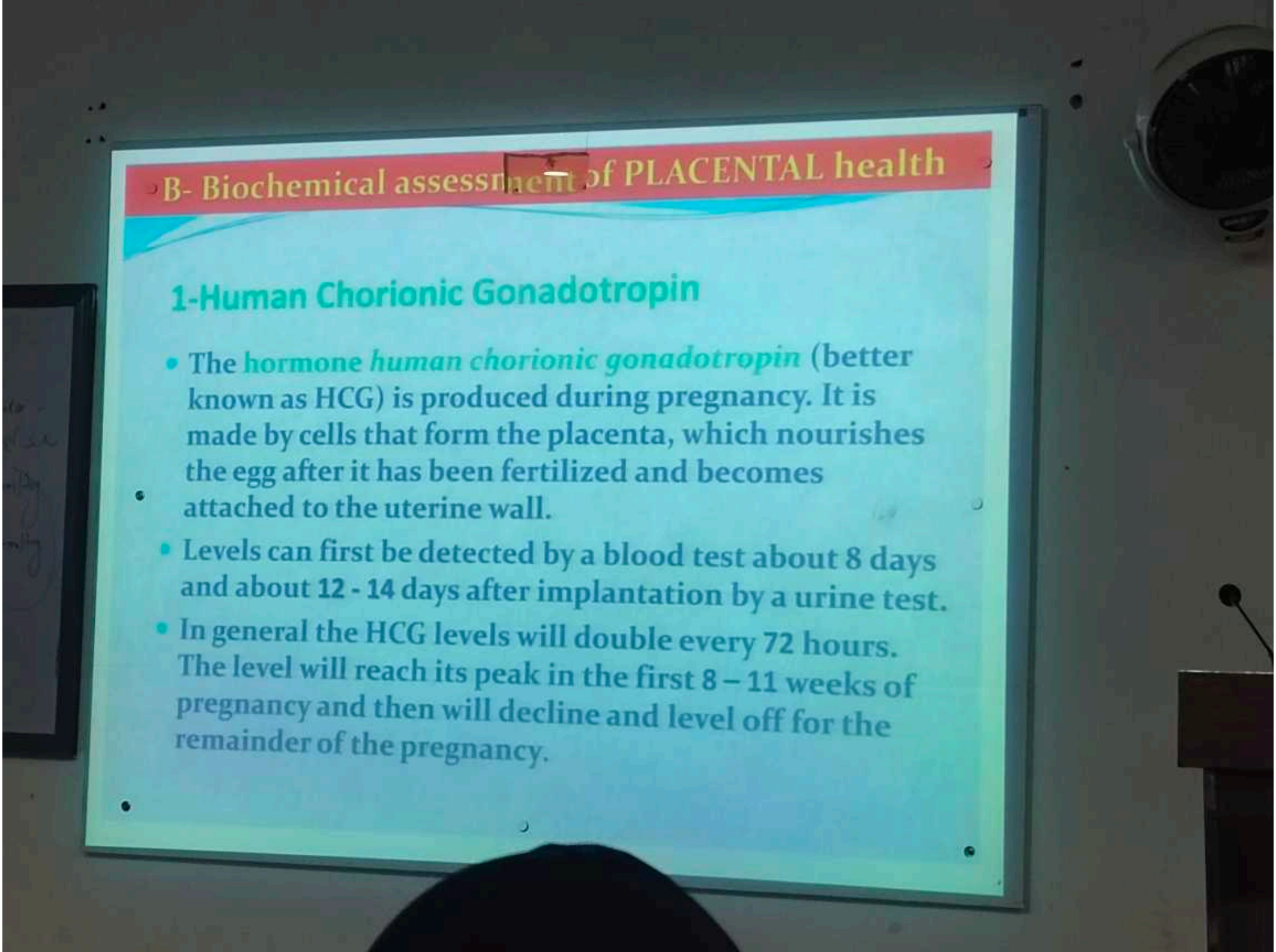
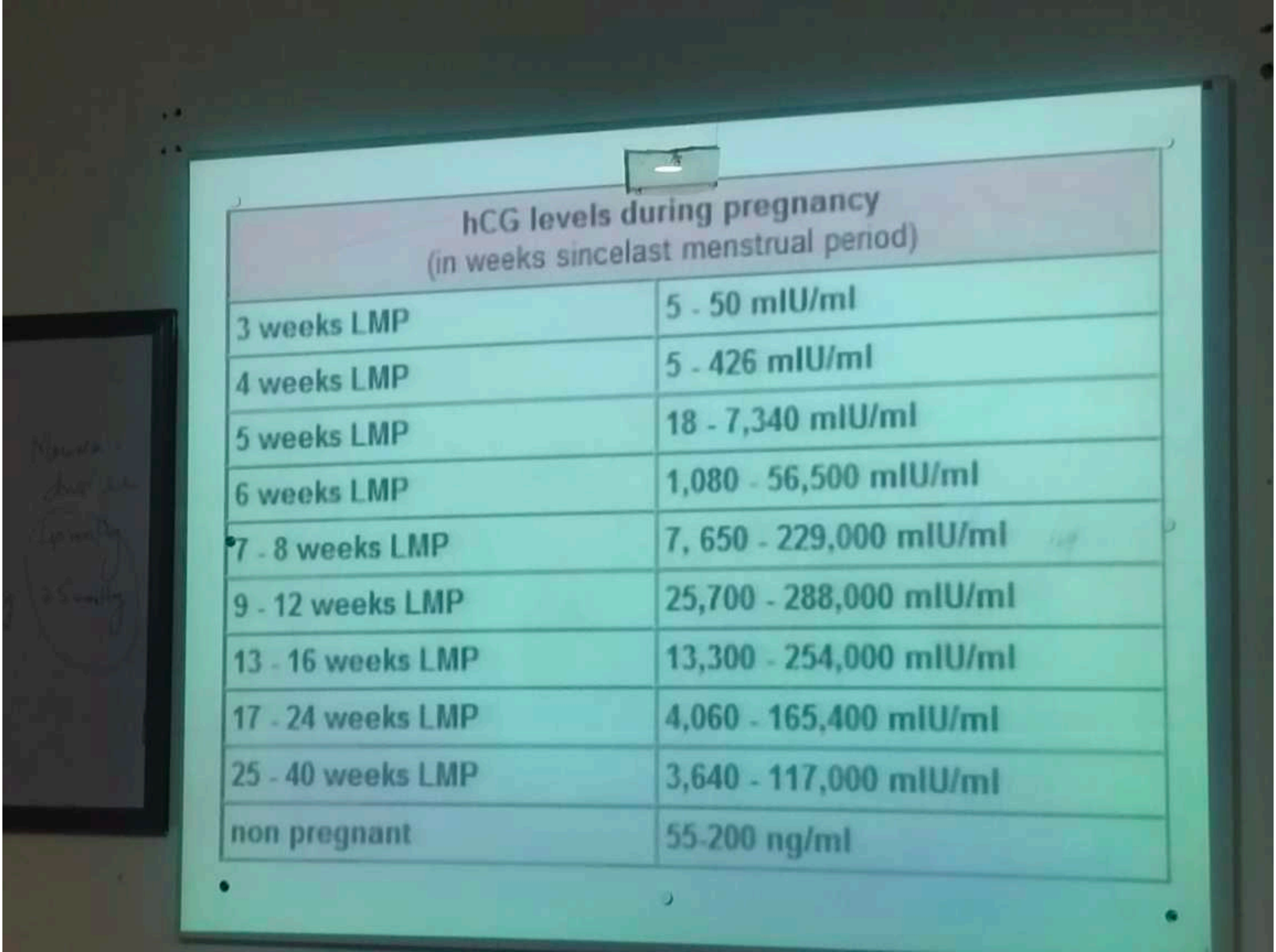
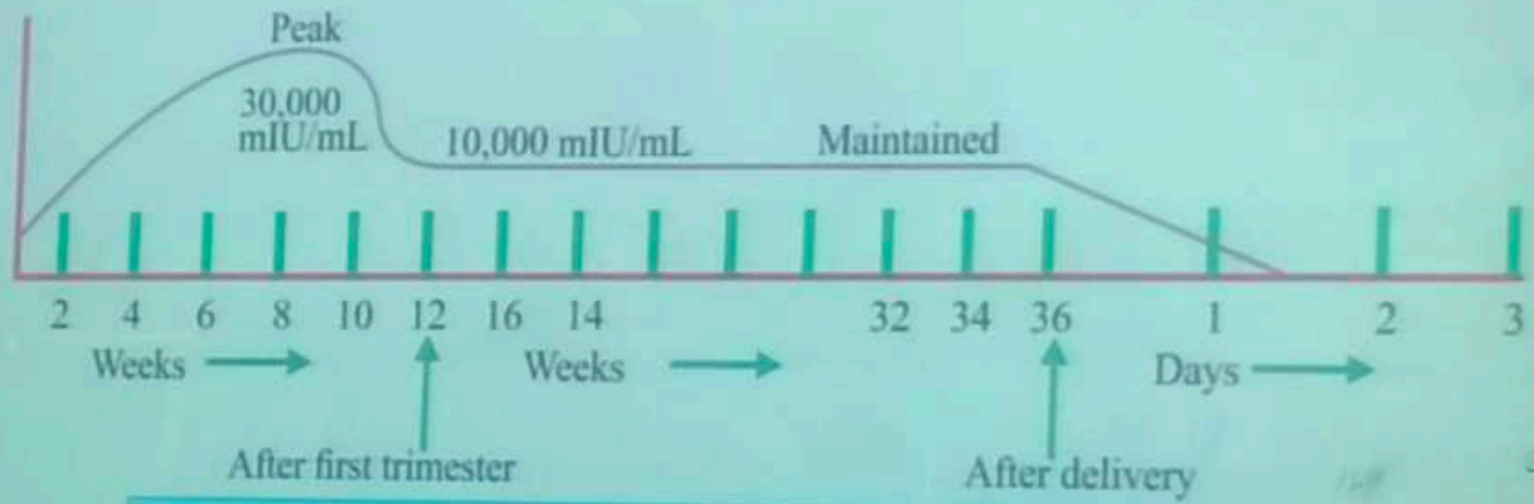

IMMUNOLOGICAL
TESTS


B- Biochemical assessment of PLACENTAL health
1-Human Chorionic Gonadotropin
The hormone human chorionic gonadotropin (better known as HCG) is produced during pregnancy. It is made by cells that form the placenta, which nourishes the egg after it has been fertilized and becomes attached to the uterine wall.
Levels can first be detected by a blood test about 8 days and about 12 - 14 days after implantation by a urine test.
In general the HCG levels will double every 72 hours. The level will reach its peak in the first 8 – 11 weeks of pregnancy and then will decline and level off for the remainder of the pregnancy.

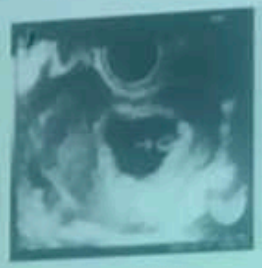


hCG levels during pregnancy (in weeks sincelast menstrual period)	
3 weeks LMP	5 - 50 mIU/ml
4 weeks LMP	5 - 426 mIU/ml
5 weeks LMP	18 - 7,340 mIU/ml
6 weeks LMP	1,080 - 56,500 mIU/ml
7 - 8 weeks LMP	7, 650 - 229,000 mIU/ml
9 - 12 weeks LMP	25,700 - 288,000 mIU/ml
13 - 16 weeks LMP	13,300 - 254,000 mIU/ml
17 - 24 weeks LMP	4,060 - 165,400 mIU/ml
25 - 40 weeks LMP	3,640 - 117,000 mIU/ml
non pregnant	55-200 ng/ml



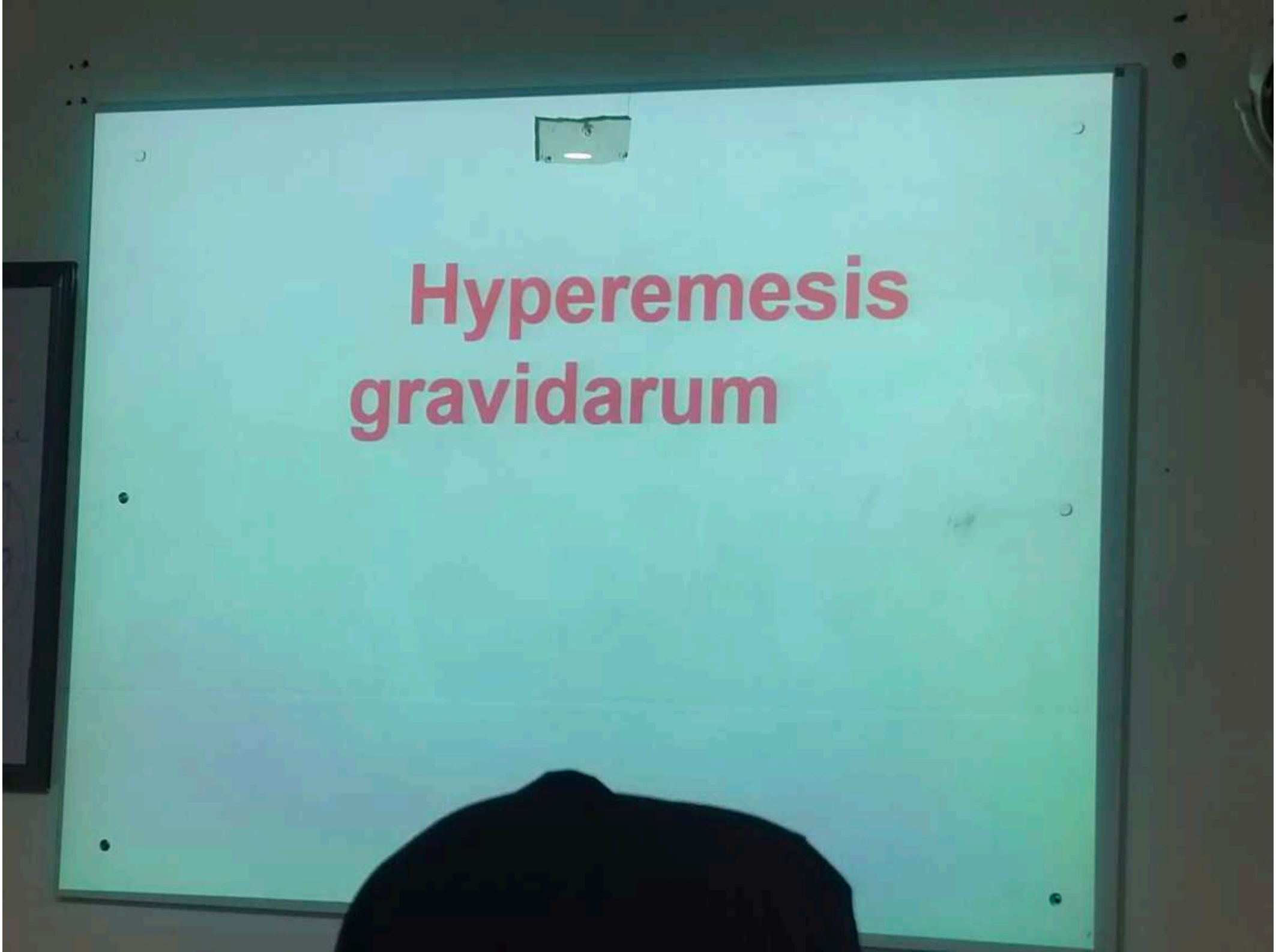
1. Peak level = 8 to 10 weeks (30,000 mIU/mL)
2. After first trimester = drops to 10,000 mIU/mL and is maintained
3. By 8 to 10 weeks = Serum and urine levels are same
4. First 2 weeks of conception = Serum level is higher
5. After 3rd week = Urine level is higher than serum
6. After delivery = HCG urine level drops in 2 to 3 days
   = After 2 weeks = Undetectable

labpedia.net



ULTRASOUND

- Intra decidual gestational sac is identified as early as 29 – 35 days of gestation
- Gestational sac & yolk sac -5 menstrual weeks
- Fetal pole and cardiac activity – 6 weeks
- Embryonic movements -7 weeks
- Doppler effect of US can pick heart rate reliably by 10th week.


Hyperemesis
gravidarum

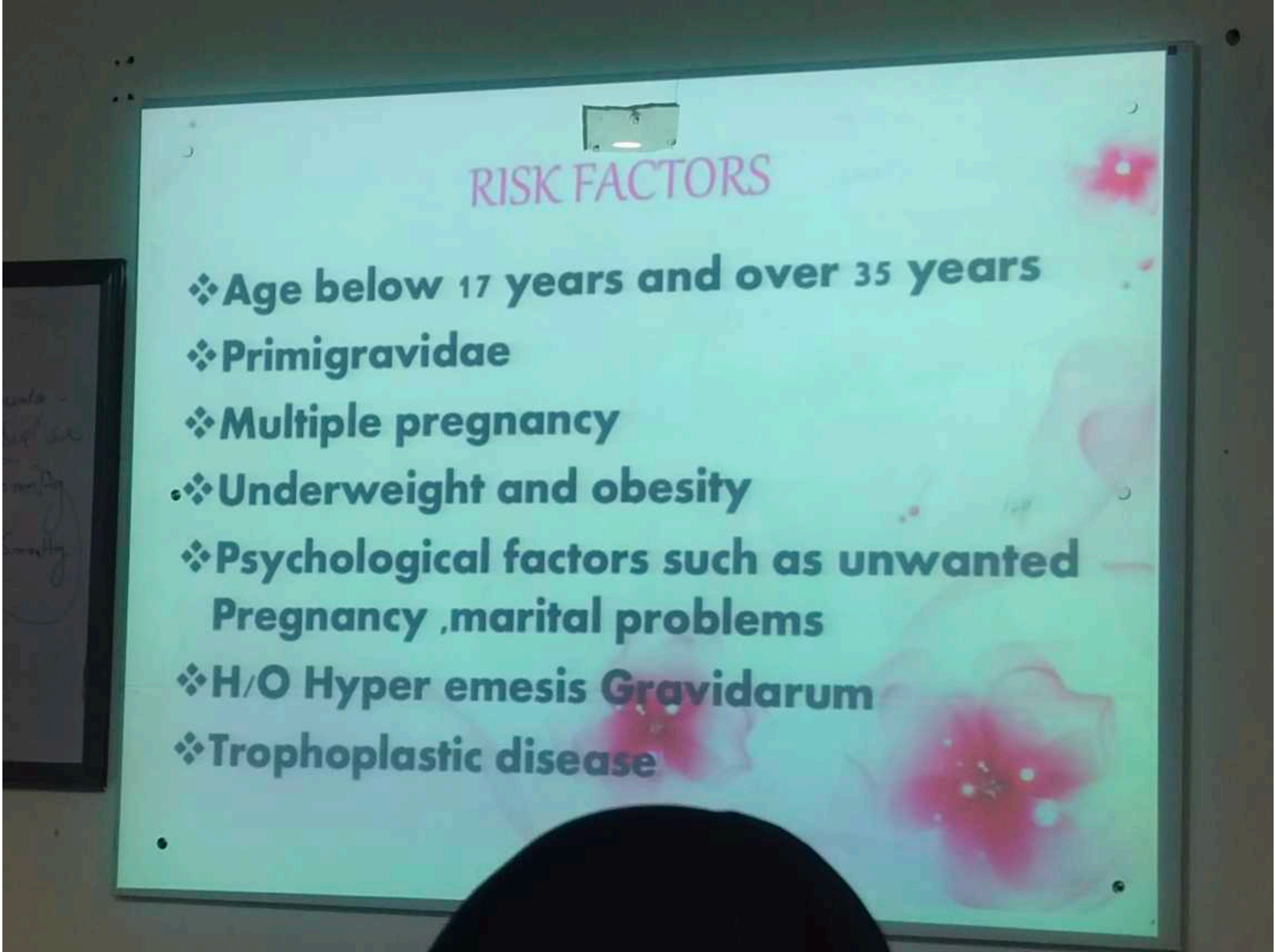
INTRODUCTION

HYPER : EXCESSIVE

EMESIS : VOMIT

GRAVIDARUM : PREGNANCY

- ❖ Nausea/vomit of moderate intensity are especially common until about 16 week.
- ❖ HCG occurs when vomiting becomes intractable in early pregnancy & cause fluid & electrolyte imbalances & nutritional deficiency.
- ❖ women usually needs to be hospitalized.


RISK FACTORS
❖Age below 17 years and over 35 years
❖Primigravidae
❖Multiple pregnancy
❖Underweight and obesity
❖Psychological factors such as unwanted Pregnancy ,marital problems
❖H/O Hyper emesis Gravidarum
❖Trophoplastic disease

ETIOLOGY

- Limited to 1st trimester
- More common in 1st pregnancy
- Tendency to recur again in subsequent pregnancies
- Familial history: Mother and sisters also suffer from the same manifestation
- More prevalent in hydratiform mole and multiple pregnancy
- Common in unplanned pregnancies

3.DIETARY DEFICIENCY

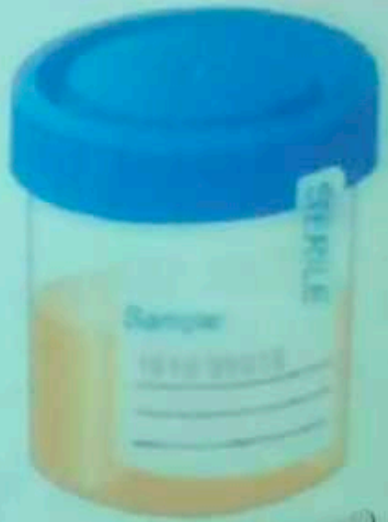
Probably due to low carbohydrate reserve as it happens after a night without food. Deficiency of vitamin B_1, B_6 & protein may be the effect rather than cause.

Cont..

Signs:

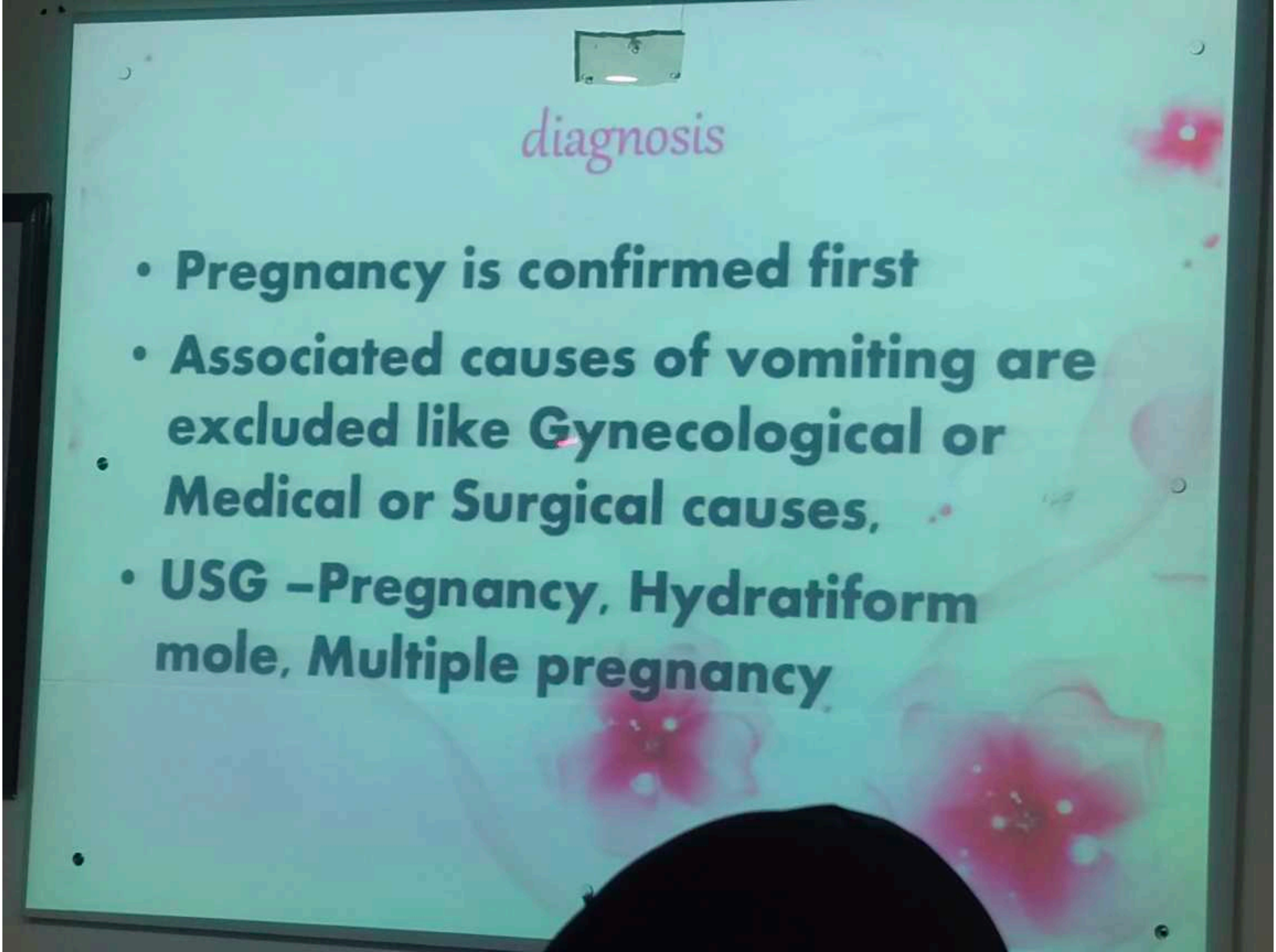
- Signs of dehydration and ketoacidosis
- Dry coated tongue
- Sunken eyes
- Acetone smell in breath
- Tachycardia
- Postural hypotension
- Raise in temperature
- Jaundice(later stage)
- Vaginal examination and USG is done to confirm pregnancy

investigation



1.Urinalysis

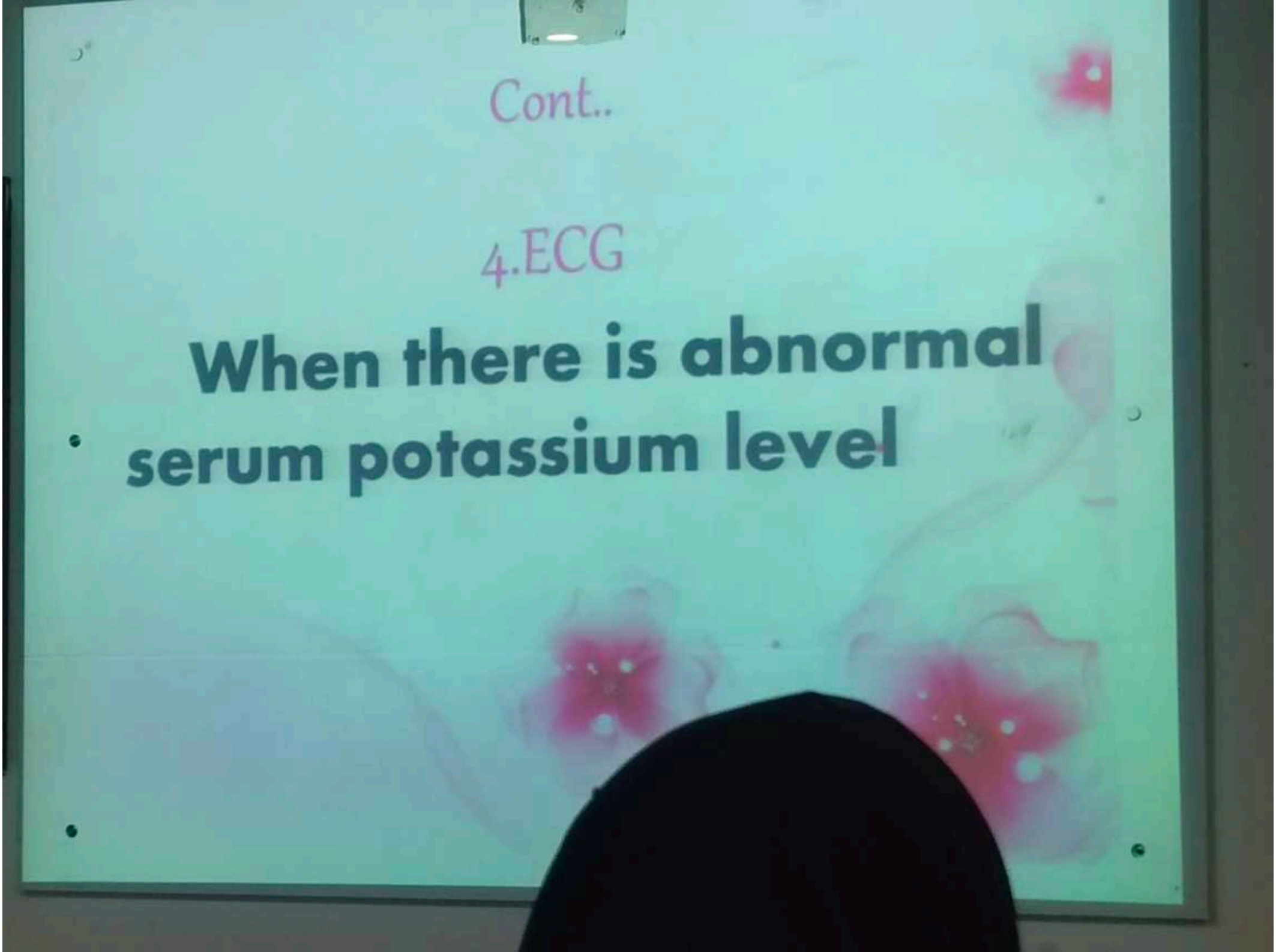
- **Quantity (too see for oliguria)**
- **Dark colour (due to concentration)**
- **High specific gravity with acid**
- **reaction**
- **Presence of acetone, occasional presence of protein and bile pigments**
- **Diminished or even absence of chloride**


diagnosis
• Pregnancy is confirmed first
• Associated causes of vomiting are excluded like Gynecological or Medical or Surgical causes,
• USG –Pregnancy, Hydratiform mole, Multiple pregnancy

complications

NEUROLOGICAL

1. **Wernicke's encephalopathy due to thiamine deficiency**
2. **Pontine myelinolysis**
3. **Peripheral neuritis**
4. **Psychosis**
5. **Ophthalmic: Retinal haemorrhage**
6. **Convulsions**
7. **Coma**


Cont..
4.ECG
When there is abnormal serum potassium level

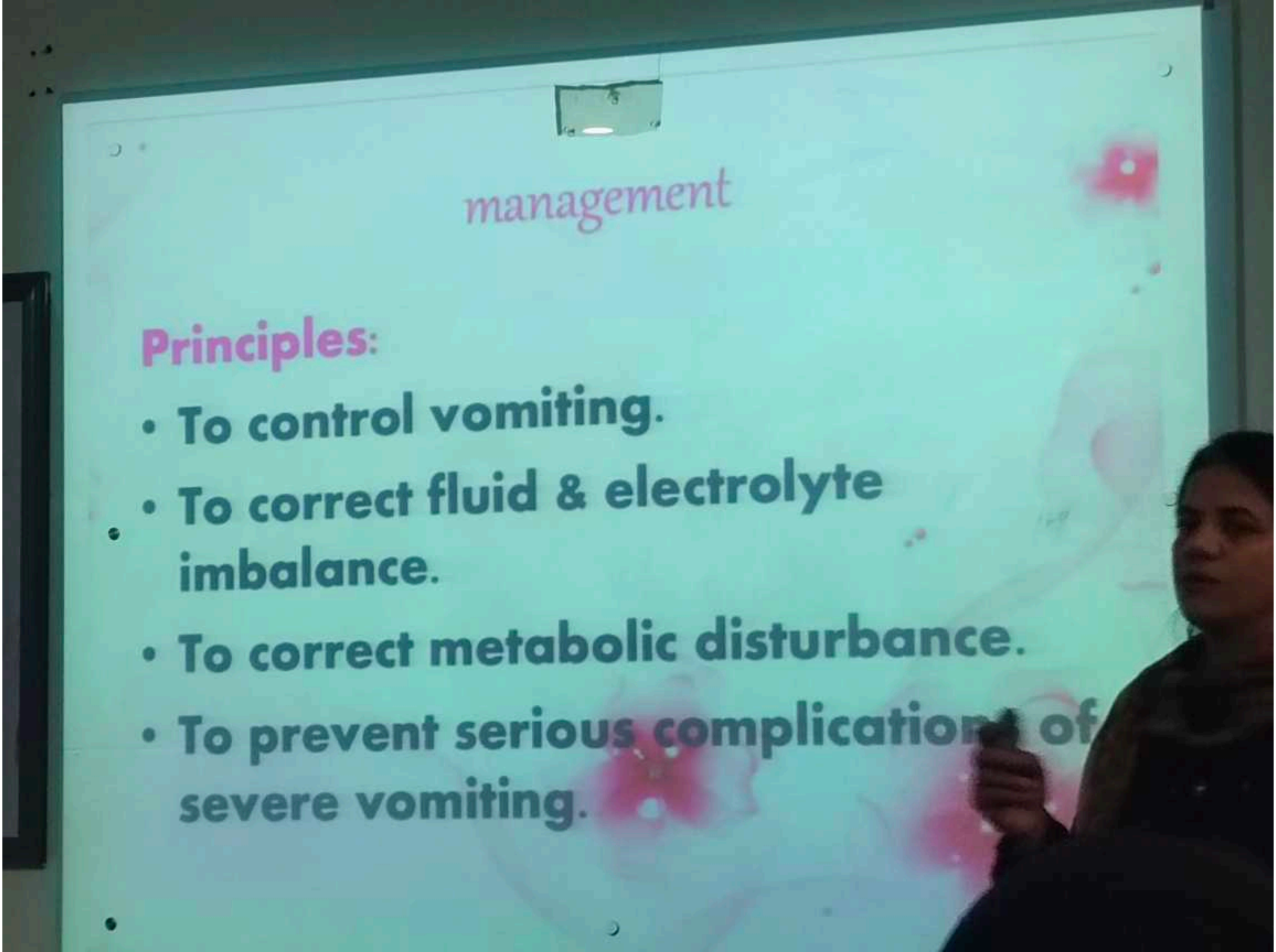
Clinical course

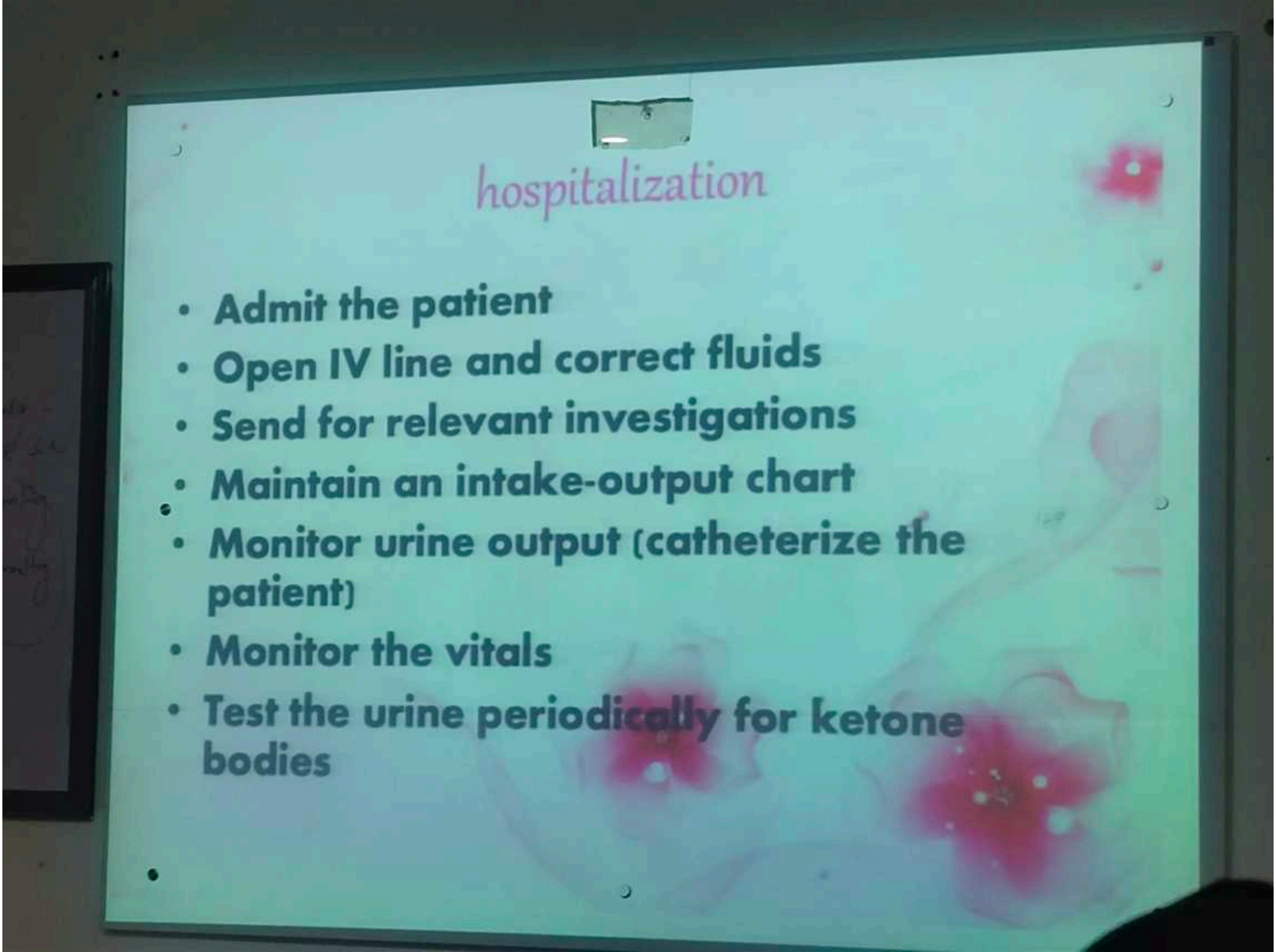
Early:

- **Vomiting throughout day**
- **Normal day to day activities are disturbed.**
- **No evidence of dehydration & starvation**

Late:

- **Evidence of dehydration and starvation**


management
Principles:
• To control vomiting.
• To correct fluid & electrolyte imbalance.
• To correct metabolic disturbance.
• To prevent serious complications of severe vomiting.


hospitalization
Admit the patient
Open IV line and correct fluids
Send for relevant investigations
Maintain an intake-output chart
Monitor urine output (catheterize the patient)
Monitor the vitals
Test the urine periodically for ketone bodies

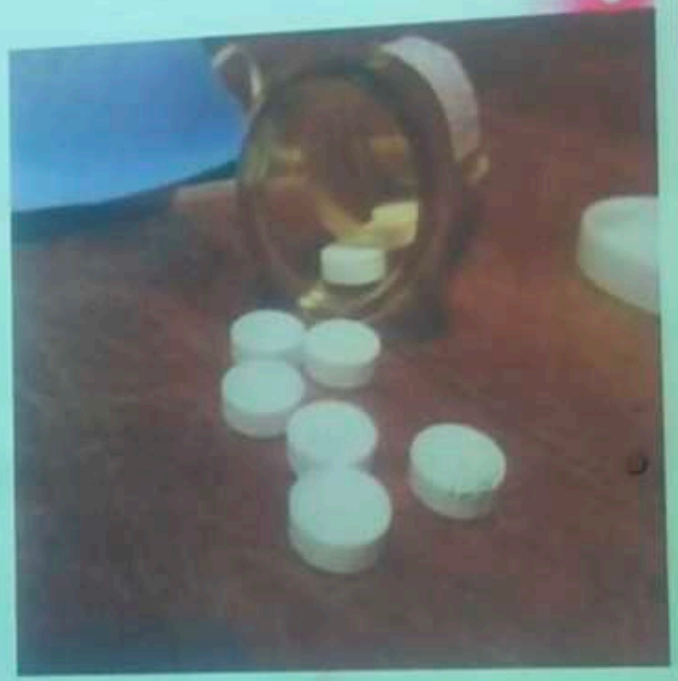
Dietary management

- Before IV fluids is given oral Small and frequent dry meals without fat are given.
- First dry carbohydrates like Biscuit, bread and toast
- Ginger is helpful
- Gradually full diet is restored

drugs

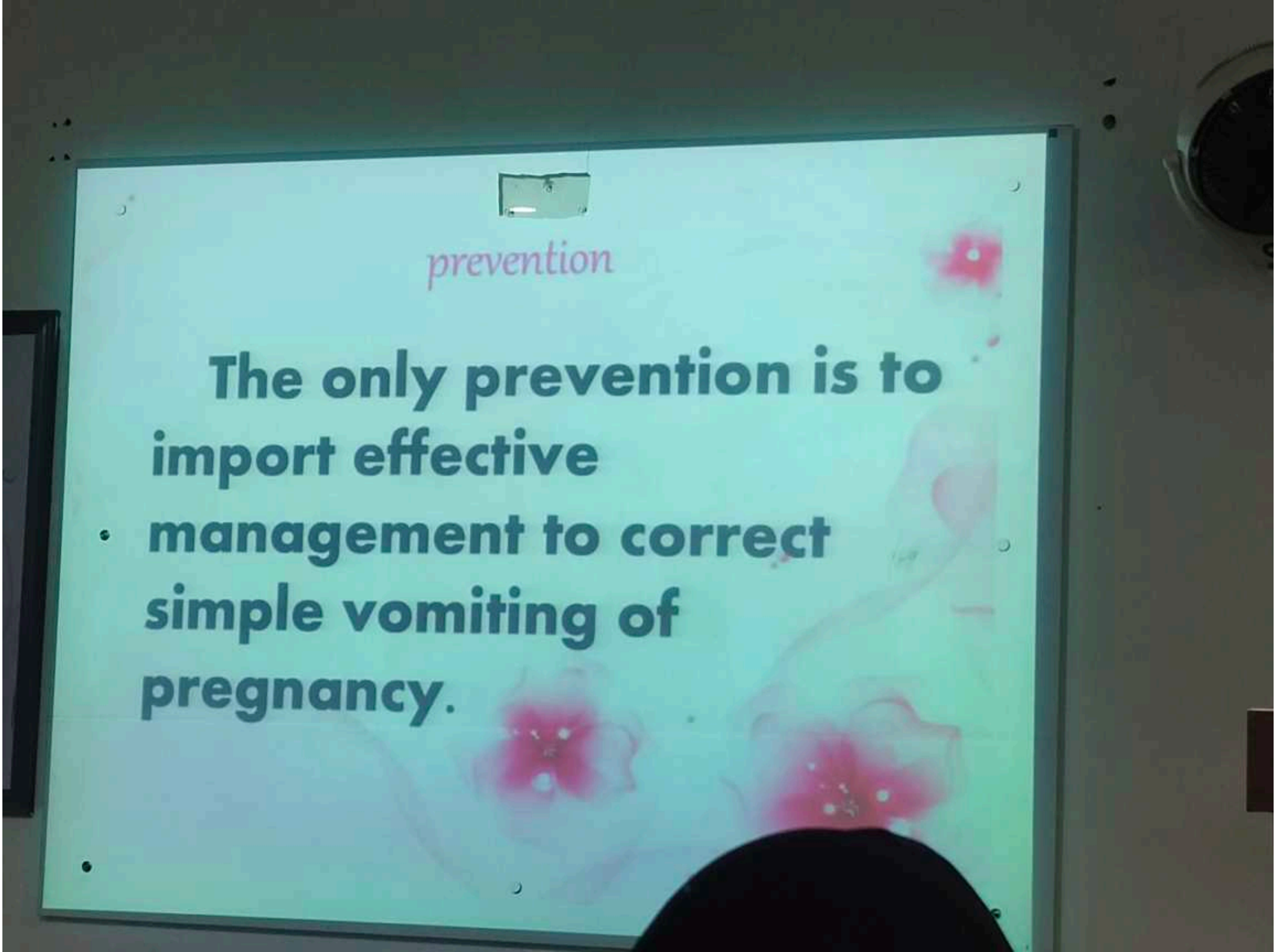
Antiemetic:-

- **Promethazin -25mg IM BD or TDS**
- **Trifluopromazine -10mg IM**
- **Metachlopromide- 10mg IM**
- **Hydrocortisone:- 100mg IV in drip**
- **Prednisolone orally**
- **Nutritional support:- Vitamin B_1, vitamin B_6,**
- **vitamin B_{12} & vitamin C**



fluids

- Oral feeding is withheld for at least 24 hours after the cessation of vomiting.
- During this period, fluid given through IV drip method.
- The amount of fluid to be infused in 24 hours is calculated as: total amount of fluid approx. 3litres, of which half is 5% is dextrose and half is Ringer's solution.
- Extra amount of 5% dextrose equal to the amount of vomitus and urine in 24 hours, is to be added. These measures help to correct dehydration, electrolyte imbalance and keto-acidosis.
- Enternal nutrition through nasogastric tube may also be given


prevention
The only prevention is to import effective management to correct simple vomiting of pregnancy.