

DIAGNOSIS OF PREGNANCY

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- Diagnosis in the first trimester (first 12 weeks)

Symptoms:

1- Cessation of menstruation :(missed period):

due to increased estrogen and progesterone production by the corpus Luteum. However it may be absent in cases of:

- pregnancy during lactation amenorrhea.
- Threatened abortion.
- Slight bleeding at the expected time of menstruation rarely occurs in the first 3 months (Hartman's sign)

2- Morning sickness:

- Nausea , vomiting especially in the morning.
- Usually disappears after the third month.
- May be due to allergy to hCG.

3- Frequency of micturition:

- Due to congestion. Irritation of the bladder by the pregnant uterus.
- Usually disappears after the third month.

4- Breast symptoms:

Enlargement , heaviness , discomfort and tinling sensation.

5- Appetite changes:

Craving for certain types of food and refusal of other types.

Signs:

1. **Breast signs** : (evident in a primigravida).
 - Increased size and vascularity.
 - Dilated visible veins.
 - Increased pigmentation of the nipple and 1ry areola.
 - Appearance of 2ry areola.
 - Appearance of Montgomery tubercles in the areola (dilated sebaceous glands).
 - Expression of colostrum.

2. Uterine sign ; felt by bimanual examination:

- **Size** : enlarged.
- **consistency** : soft.
- **Shape** : globular.
- **Hegar sign** : (elicited between 6-10 weeks).

Two fingers in the anterior fornix, the fingers of the other hand over the abdomen behind the uterus . The fingers of both hands can be approximated as the lower part of the uterine body is soft and empty.

- **Palmer sign:**

Uterine contractions felt on bimanual examination.

3- Cervical and vaginal signs:

- **Leucorrhea :**

Increased vaginal discharge.

- **Chadwick's sign:**

Bluish discoloration of the vagina and cervix.

- **Goodell's sign:**

Cyanosis and softening of the cervix at 4 weeks

Investigations:

1. **Pregnancy test:**

All depend on the detection of hCG either in serum or in urine . Simple urine pregnancy tests are now available to be used at home giving an accurate result within 5 minutes.

A. **Estimation of beta subunit of hCG in the serum:**

Using radioimmunoassay , sensitivity : 5 mIU/ml.

Positive 1 week BEFORE the expected menstruation (1 week after fertilization).

B. ELISA pregnancy slide test:

can detect pregnancy starting from 48 hours after the missed period.

C. Immunologic pregnancy tests:

- Detect hCG in urine by an antigen antibody reaction.
- The sensitivity of these tests ranges between 25-250 mIU/ ml. positive few days AFTER the missed period.

Uses of pregnancy tests:

- Diagnosis of normal pregnancy.
- Diagnosis of missed abortion.
- Diagnosis of ectopic pregnancy (see ectopic pregnancy) .
- Diagnosis and follow – up of vesicular mole and choriocarcinoma .

2. **Ultrasonography:**

Vaginal:

- Gestational sac : 4 weeks.
- One fetal pole : 5 weeks.
- Two fetal poles : 6 weeks.
- Fetal heart activity : 7 weeks.

Abdominal:

The previous findings can be detected one week later.

3. **Auscultation of FHS :**

Using the Doptone (sonicaid) starting from 10 weeks.

Diagnosis in the second trimester (13-28 weeks)

Symptoms:

1. **Amenorrhea.**
2. **Morning sickness** and urinary symptoms gradually decrease .
3. **“Quickening”** : perception of fetal movements by the pregnant woman:
 - a. 18-20 weeks in primigravida.
 - b. 16-18 week s in multipara.
4. **Abdominal enlargement.**

MATERNAL PHYSIOLOGICAL CHANGES OF PREGNANCY

Signs:

1. Breast changes become more evident.
2. The uterus is abdominally felt.
3. Braxton Hicks contractions; intermittent painless contractions detected by abdominal examination.
4. Internal ballottement : elicited at 16 week , it can be demonstrated by pushing the fetus through the anterior fornix using 2 fingers.
5. External ballottement : elicited at 20 week through abdominal examination.
6. Palpation of the fetal parts and palpation of fetal movements by the obstetrician at 20 weeks.
7. Auscultation of the F.H.S. at 20- 24 weeks by pinard's fetal stethoscope.