

Lecture 5/First week of development – Assistant prof. Eman Ali Hashim

ovulation to implantation

Objective:

Ovarian cycle (definition & hormonal effect)

Ovulation

Menstrual cycle

Ovarian cycle begins at puberty, are controlled by FSH(follicular stimulating hormone) & LH (luteinizing hormone)

These hormones are secreted from pituitary & controlled by hypothalamus.

Under the influence of FSH 15-20 primary follicles run in stages of maturation. Under normal conditions, only one of these follicles reaches full maturity, other degenerate & become atretic .

Proliferation of follicular cells during maturation of follicles is mediated by growth factor9.

Cell layers in the wall of maturing follicles are responsible for the production of estrogen.

Estrogen causes the following changes in the female reproductive tract:

1. Uterine endometrium enters the proliferative phase.
2. Thinning of cervical mucus (E mucus) to allow passage of sperm.
3. Anterior lobe of pituitary gland is stimulated to secrete LH.

Ovulation (release of oocyte with its surroundings) occurs when concentration of LH is high. Also LH promotes development of corpus luteum.

Changes in the wall of uterus take place in response to secretion of hormones from ovary.

Uterus runs in a cycle, menstrual cycle, lasts 28 days.

Endometrium appeared in three phases

Menstrual, proliferative & secretory phase.

Phases of ovarian cycle

1-Follicular (pre-ovulatory phase)

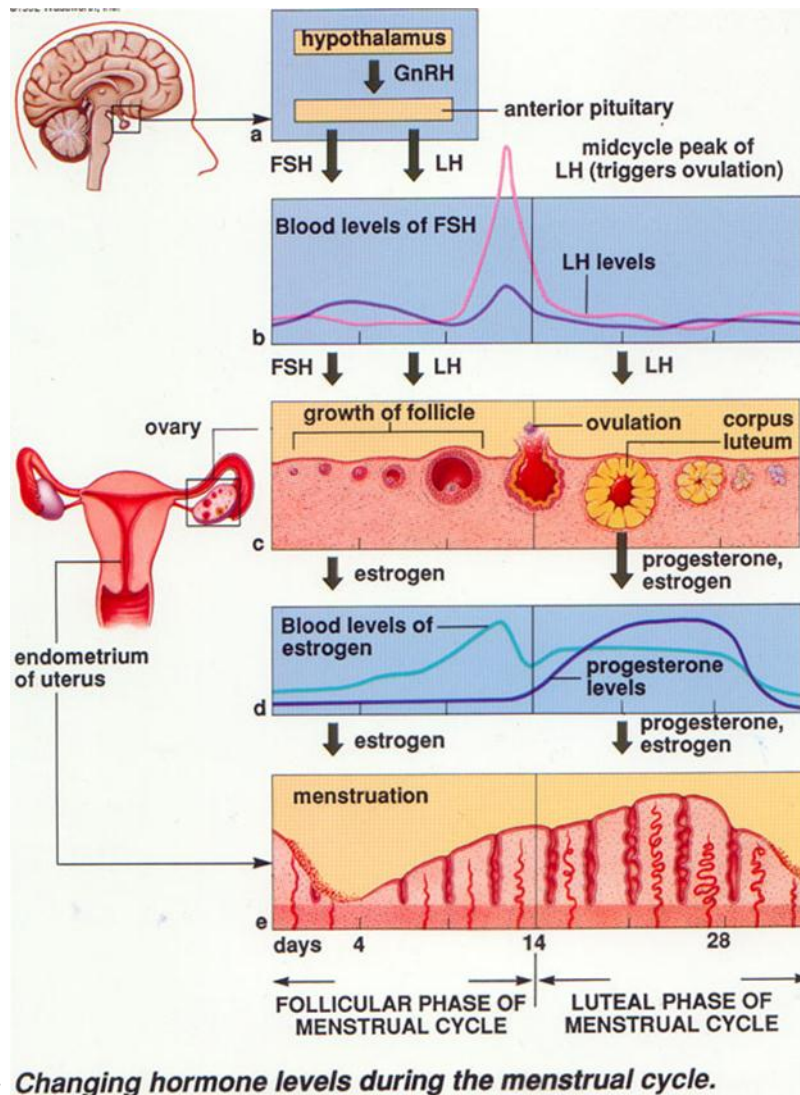
2-Ovulation

3-Luteal (post-ovulatory phase)

What happens in the ovary after ovulation?

The ruptured Graafian follicle changes to form a yellow body, the corpus luteum.

Corpus luteum secretes progesterone. This hormone is responsible for the changes in endometrium of uterus. Its life span depends on whether pregnancy



occurs ... or not. *Changing hormone levels during the menstrual cycle.*