APARATUL GENITAL FEMININ
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1. CONADELE
   - OVARE

2. CĂI GENITALE
   - TROMPA UTERINĂ
   - UTER
   - VAGIN

3. GLANDE ANEXE
   - GLANDA MAMARĂ
   - PLACENTA ( tranzitoriu )
1. Germinal epithelium
2. Tunic albuginea
3. Primordial follicles
4. Follicular cells of a primary and a small growing follicle
5. Corpus albicans (residue of a corpus luteum)
6. Secondary follicle, theca folliculi
7. Antrum (follicular cavity) with fluid
8. Cortex
9. Vesicular (secondary) follicle: granulosa cells
10. Blood vessels in the medulla
11. Atretic follicles
12. Ovarian germinal epithelium
13. Mesovarium
14. Peritoneal mesothelium
15. Regressing corpus luteum
16. Thecae interna and externa
17. Granulosa cells
18. Antrum
19. Cumulus oophorus
20. Oocyte
21. Atretic follicle
22. Growing follicle
23. Regressing corpus luteum
24. Medulla
25. Follicle sectioned near its surface (t.g.s.)
26. Atretic follicle
27. Regressing corpus luteum
28. Oocyte in a secondary follicle
29. Primary and primordial follicles
30. Atretic follicle

Fig. 19-1 Ovary: Dog (panoramic view). Stain: hematoxylin-eosin. Low magnification.
Each follicle houses a primary oocyte arrested in the prophase of the first meiotic division. The most developed Graafian follicle releases its oocyte during ovulation. As that primary oocyte is being released, it finishes its first meiotic division, becomes a secondary oocyte, and is arrested in the metaphase stage of the second meiotic division. Subsequent to ovulation, the Graafian follicle differentiates into the corpus luteum, which will eventually degenerate into the corpus albicans.
OVAR
STRUCTURĂ GENERALĂ

1. EPITELIUL DE ACOPERIRE
2. ALBUGINEEA
3. ZONA CORTICALĂ
4. ZONA MEDULARĂ
FOLICULII OVARIENI

1) PRIMORDIALI

2) EVOLUTIVI

- PRIMARI

  - UNILAMELARI

    - MULTILAMELARI (PREANTRALI)

- SECUNDARI (VEZICULARI)

- F. MATUR (de GRAAF)

3) INVOLUTIVI
STRUCTURA GENERALĂ A UNUI FOLICUL OVARIAN

A. COMPONENTE DE ORIGINE EPITELIALĂ

- OVOCITUL
- CELULELE FOLICULARE
- LICHIDUL FOLICULAR
- ZONA PELLUCIDA
- CORPII CALL EXNER
- MEMBRANA SLAVIANSKI

B. COMPONENTE DE ORIGINE CONJUNCTIVĂ

- TECILE FOLICULARE
- VASELE SANGUINE
Fig. 19-4  Human Ovary: Corpora Lutea and Atretic Follicles.  Stain: hematoxylin-eosin. Low magnification.

1. Germinal epithelium
2. Stroma (cortex)
3. Corpus luteum, wall and former antrum
4. Theca lutein cells
5. Granulosa lutein cells
6. Loose connective tissue in central cavity
7. Medulla with blood vessels
8. Small growing follicle
9. Follicle in moderate atresia:
   a. stroma replacing thecal cells
   b. hyperplastic gelatinous membrane
   c. loose connective tissue filling antrum
10. Corpus luteum (small part) in moderate regression
    a. lutein cells, early pyknotic
    b. blood vessels growing in from stroma
11. Late atresia: hypertrophied gelatinous membrane and stroma
12. Primary follicles
13. Follicle in early atresia:
    a. theca interna
    b. hyperplastic gelatinous membrane
    c. follicular fluid
    d. antrum
    e. connective tissue growing into the antrum
14. Follicle in very early atresia:
    a. theca interna
    b. granulosa cells
    c. zona pellucida and remnant ofocyte
    d. follicular fluid
    e. antrum
15. Corpus albicans
16. Regressing corpus luteum:
    a. fibrous center
    b. pyknotic lutein cells
    c. capsule
17. Large mature follicle, normal:
    a. theca interna
    b. granulosa cells
    c. follicular fluid filling antrum
18. Corpus luteum (cortex)
**Fig. 19-5** Corpus Luteum (panoramic view). Stain: hematoxylin-eosin. Medium magnification.

1. capsule (former theca externa)
2. septum of connective tissue
3. glandular epithelium (granulosa lutein cells and theca lutein cells)
4. ovarian stroma
5. blood vessels in the stroma
6. theca lutein cells along a septum
7. septa of connective tissue
8. connective tissue covering of inner luteal cells
9. connective tissue and coagulated fluid
10. blood clot

**Fig. 19-6** Corpus Luteum: Peripheral Wall. Stain: hematoxylin-eosin. High magnification.

1. artery
2. theca lutein cells
3. vein
4. capillary
5. capsule (former theca externa)
6. septum of connective tissue
7. granulosa lutein cells
8. capillaries
UTERINE TUBE: AMPULLA

1. Circular muscle fibers
2. Interstitial connective tissue
3. Venules
4. Venules
5. Arteriole
6. Longitudinal muscle fibers
7. Peritoneal mesothelium (serosa)
8. Lamina propria
9. Fold of mucosa
10. Epithelium

FIG. 1. PANORAMIC VIEW, TRANSVERSE SECTION. Stain: hematoxylin-eosin. 40×.

Placental Structure

- Chorionic plate
- Anchoring (primary) villi
- Chorionic (secondary) villi
- Branch (tertiary) villi
- Placental septum
- Decidua basalis
- Stratum compactum
- Stratum spongiosum
- Myometrium

After delivery, the decidua detaches at this point.
Basal Plate

- Nitabuch’s fibrin
- Rohr’s fibrin
- Villi
- Decidua
- Intermediate Trophoblast
Term Villi
• APARATUL GENITAL FEMININ-II-
UTERINE TUBE: AMPULLA

1 Circular muscle fibers
2 Interstitial connective tissue
3 Venules
4 Venules
5 Arteriole
6 Longitudinal muscle fibers
7 Peritoneal mesothelium (serosa)
8 Lamina propria
9 Fold of mucosa
10 Epithelium

FIG. 1. PANORAMIC VIEW, TRANSVERSE SECTION. Stain: hematoxylin-eosin. 40×.

1. Epithelium of the endocervix (mucus-secreting columnar)
2. Cervical glands
3. Muscularis (smooth muscle)
4. Lamina propria
5. Os, or vaginal opening of the cervical canal
6. Epithelium of portio vaginalis (stratified squamous)
7. Epithelium at base of fornix
8. Epithelium of external (vaginal) surface of the cervix (stratified squamous)
9. Lamina propria
10. Muscularis (smooth muscle)
11. Venules (venous plexus)
12. Lymphatic nodule

Stain: hematoxylin-eosin. 20x.
FIG. 1. VAGINA: LOGITUDINAL SECTION. PLASTIC SECTION AND HEMATOXYLIN AND EOSIN STAIN.
FIG. 2. GLYCOGEN IN HUMAN VAGINAL EPITHELIUM. Stain: Mancini's iodine technique.
FIG. 1. POST-MENSTRUAL PHASE, 5TH DAY OF NORMAL CYCLE.

1 Intermediate cells

2 Superficial cells (acidophilic and basophilic)

FIG. 2. OVULATORY PHASE, 14TH DAY.

8 Superficial acidophilic cells

9 Intermediate cells

10 Superficial basophilic cells

3 Intermediate cells with folded borders

4 Superficial acidophilic cells

5 Superficial basophilic cells

11 Superficial acidophilic cell

12 Neutrophilic cells

13 Intermediate cells with folded borders

14 Grouped intermediate cells

FIG. 3. LUTEAL PHASE, 21ST DAY.

6 Intermediate cells with folded borders

7 Complement of intermediate cells

FIG. 4. PREMENSTRUAL PHASE, 28TH DAY.

15 Intermediate cell

16 Neutrophilic cells

17 Basal cells

FIG. 5. THREE MONTHS' PREGNANCY

FIG. 6. MENOPAUSE, ATROPHIC PHASE.

a Superficial acidophilic cell
b Superficial basophilic cell
c Intermediate cell
d Intermediate (tear), cell in profile
e Basal and paraepithelial cells: basophilic and acidophilic cells

FIG. 7. TYPES OF CELLS FOUND IN VAGINAL SMEARS DURING DIFFERENT AND NORMAL REPRODUCTIVE PHASES. Stain: Shorr's trichrome. 250× and 450×.
FIG. 1. MAMMARY GLAND, INACTIVE. Stain: hematoxylin-eosin. 90X.
FIG. 2. MAMMARY GLAND DURING THE FIRST HALF OF PREGNANCY. Stain: hematoxylin-eosin. 90×.
FIG. 1. MAMMARY GLAND, SEVENTH MONTH OF PREGNANCY. Stain: hematoxylin-eosin. 90×.
FIG. 2. MAMMARY GLAND DURING LACTATION. Stain: hematoxylin-eosin. 90× and 200×.
Placental Structure

Chorionic plate
Anchoring (primary) villi
Chorionic (secondary) villi
Branch (tertiary) villi
Placental septum
Decidua basalis
Stratum compactum
Stratum spongiosum
Myometrium

After delivery, the decidua detaches at this point
FIG. 1. PLACENTA: FIVE MONTHS’ PREGNANCY (PANORAMIC VIEW). Stain: hematoxylin-eosin. 10X.