

2024 Batch-Lecture No. 5

THE CERVIX

1. The cervix is a powerful tubular sphincter muscle between the vagina and uterus.
2. Its wall is harder, thicker, and more rigid than are the walls of either the uterus or the vagina.
3. This is more noticeable in uniparous than in multiparous animals.
4. The blood and nerve supply are the same as those of the uterus and vagina with the exception of utero-ovarian artery.

COW

1. The cervix in the cow is about 5 to 10 cm in length by 1.5 to 7 cm in diameter, the larger of the measurements occurring in pluriparous animals.
2. In some Brahman or Brahman-cross, pluriparous cows the cervical dimensions may greatly exceed these averages.
3. The cervix is located caudal to the uterus either in the pelvic cavity, on the pelvic brim, or in the abdominal cavity.
4. During pregnancy the cervix is drawn forward into the abdominal cavity.
5. The cervix of the cow is composed of 3 to 5 muscular fibrous transverse annular folds that have an almost cartilaginous consistency.
6. The external os of the cervix does not protrude into the vagina, although prolapsed cervical rings in pluriparous cows may present such an appearance.
7. The cervix of the cow is difficult if not impossible to dilate manually.
8. It dilates slightly during estrum.

MARE

1. The cervix of the mare is 5 to 7.5 cm long and 2.5 to 5 cm in diameter.
2. It is suspended in the pelvic cavity caudal to the uterus and is characterized by numerous small low longitudinal folds of mucous membrane.
3. The caudal os of the cervix extends into the vagina 2.5 to 5 cm, carrying with it a frenulum of vaginal mucous membrane below the external os.

4. The cervix of the mare can be rather easily dilated.

EWE

1. The cervix of the ewe is about 2.5 to 5 cm long and is similar to that of the cow.
2. Its external os is located in the cranial ventral portion of the vagina and is partially covered by a projecting "hood" of mucosa.

SOW AND DOG

1. The cervix of the sow and dog as of other multiparous animals is poorly defined, being characterized by a thickened wall with transverse folds.
2. The sow's cervix is about 10 to 20 cm long and is directly continuous with the vagina.
3. The cervix or neck of the uterus in the dog is very short, 0.5 to 1 cm in length and externally the cervix projects into the vagina.

VAGINA

1. The vagina is a muscular membranous structure lying in the pelvic cavity dorsal to the bladder that acts as a copulatory organ and as a passage for the foetus at the time of parturition.
2. The vagina is capable of great dilation.
3. Its caudal extremity is just cranial to the urethral opening in the region of the hymen.
4. The hymen is a slight circular constriction between the vagina and the vulva.
5. A varying degree of persistence of the hymen may occasionally occur in all species, from a thin vertical central band to a completely imperforate structure.
6. 14.1 percent of the heifers had hymenal remnants.
7. These usually disappear after copulation or parturition.
8. Prominent hymenal folds are present in the mare.
9. Bloom reported that a true hymen was lacking in the dog and cat.
10. The blood and nerve supply of the vagina arises from branches of the urogenital and internal pudendal arteries and autonomic nerves from the pelvic plexus.

11. It is surrounded by loose connective tissue and varying amounts of fat.

COW

1. The vagina of the cow is about 25 to 30 cm long in the non pregnant animal.
2. The recto-genital pouch of peritoneum extends backward about 12 cm, on the dorsal cranial surface and 5 cm on the ventral cranial serous surface of the vagina.
3. On the ventral floor of the vagina, beneath the mucosa and running the length of the vagina, the two Gartner's ducts, one-tenth inch diameter, remnants of the primitive mesonephric or wolffian ducts, are frequently present.
4. Cysts of these structures may occasionally be observed.

MARE

1. The vagina of the mare is about 18 to 23 cm long and 10 to 13 cm in diameter when dilated.
2. Most of the vagina, except a small dorsal cranial portion, is retroperitoneal.
3. Mesonephric ducts are only occasionally present.

EWE

1. The vagina of the ewe is 7.5 to 10 cm long and similar to the cow's.

SOW

1. The vagina of the sow is 7.5 to 11.5 cm long.
2. It is small in diameter, with a thick muscular coat.
3. Mesonephric ducts are occasionally present.

DOG

1. The vagina in the bitch is long, 10 to 14 cm, and narrow, 1.5 cm.
2. The muscular coat is thick, and mesonephric ducts are usually absent.

CAT

1. The vestibule and vagina are the same length, and mesonephric ducts are usually lacking.