

2024 Batch-Lecture No. 41

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Abdominal hernias resulting in hysterocele

1. The pregnant uterus may drop into or be present in umbilical, inguinal, perineal, diaphragmatic or ventral hernia.
2. In cases of rupture of pre-pubic tendon, pregnant uterus may drop into sac formed by skin and cutaneous muscles. This may cause dystocia, death of the foetus and even death of the dam.

UMBILICAL AND INGUINAL HERNIA:

1. It may, if large enough contain a portion of uterine horn and developing foetus.
2. Umbilical hernias have been described as hereditary in all species of animal.
3. In cattle most of them are small.
4. Such animals should not be used for breeding, umbilical hernias in cattle, especially in Holsteins is an autosomal dominant with low penetrance.
5. Most female animals with large umbilical hernias are not bred.
6. In males an umbilical hernia may prevent copulation.
7. Inguinal hernias are hereditary or acquired and are described as common in the bitch, and rare in cat, sow and mare.
8. They have not been described in cow and ewe.
9. Bitches over 5 years of age are most commonly affected.
10. It has been reported that spayed bitches given large amounts of estrogen developed inguinal hernias within 90 days.
11. One bitch with an inguinal hernia was spayed through a midline incision and the hernia was left intact, one year later the hernia had spontaneously disappeared.
12. These observations indicate a close relationship between estrogen production by the ovary and the development of inguinal hernia in bitches.
13. Inguinal hernia may be bilateral or unilateral and usually the latter and are characterized by a swelling in the inguinal region.
14. This becomes larger as pregnancy progressed if a portion of the pregnant uterine horn is present in the hernia sac.
15. If pregnancy is allowed to progress it results in the death of the foetuses or in dystocia at the time of parturition.
16. In the bitch this condition should be differentiated from mammary neoplasm and local abscess.

DIAPHRAGMATIC HERNIA:

1. It is usually secondary to trauma in the dog and in rare cases a pregnant uterine horn may be present in the thoracic cavity.

PERINEAL HERNIA:

1. A perineal hernia containing a portion of the foetus has been described in the goat and is possible but rare in the dog.

SMALL VENTRAL HERNIA:

1. Small ventral hernias are usually traumatic in origin and may occur in all species.
2. If they are large, a portion of the uterine horn and foetus may develop therein.
3. If ventral hernia in large animals are extensive they are difficult if not impossible to repair.
4. Fortunately, in large animals the uterus in early pregnancy does not drop far enough downward or forward to drop into most hernia sacs and in later pregnancy the uterus is too large to enter them.

Treatment:

1. In the bitch, an inguinal hernias containing a portion of a pregnant horn can be handled surgically early in pregnancy by reducing and repairing the hernia, if necessary by enlarging the ring and or using a synthetic mesh for a lasting support.
2. From mid pregnancy to near term, hysterotomy can be performed and the foetus or foetuses removed, the uterus replaced in the abdominal cavity, and the hernia ring sutured.
3. Occasionally the portion of the herniated uterine horn containing foetuses may be removed by a partial hysterectomy.
4. In other cases ovario-hysterectomy may be indicated.
5. The rare cases of umbilical or ventral, diaphragmatic or perineal hernias encountered containing a portion of the pregnant uterus could be handled in a manner similar to the repair of inguinal hernias.

EEXTENSIVE UNILATERAL VENTRAL HERNIAS:

1. Extensive unilateral ventral hernias in large animals occur occasionally in advanced pregnancy in cows, sheep, and goats but rarely in mares.
2. These hernias are usually due to trauma.
3. The greatly increased weight of the gravid uterus and foetus, and possibly other changes weaken the abdominal floor.
4. These extensive hernias are seen most commonly in ruminants on the right side of the abdominal floor.
5. According to Benesch and wright they are observed most often on the left side in the mare.
6. In rare instances they may be associated with twins or with hydrops of the amnion and allantois.
7. Large unilateral ventral hernias are characterized by a unilateral ventral sagging of the abdominal floor, 6 to 8 inches or more below that of the normal side.
8. Calving or foaling may be difficult because of the inability of the abdominal muscles to contract equally and strongly and force the foetus toward and through the birth canal.
9. Following calving, the abdominal floor of the affected side may retract in some cattle and the abdominal contour become nearly normal.
10. This may occasionally remain normal during subsequent pregnancies.
11. However, it usually recurs during the latter stages of each gestation period.

12. The involvement is so great that treatment or operations other than those outlined under rupture of pre-pubic tendon are not indicated.

RUPTURE OF PREPUBIC TENDON OR PREPUBIC DESMORRHEXIS OF PREGNANCY:

1. It is seen most commonly in the mare, and rarely in the cow and the ewe.
2. This condition is seen most frequently in draft mare that is idle and well fed and infrequently in light mares.
3. According to Emmerson, it is rather rare in cattle because the subpubic tendon, a structure that does not exist in horses, given added support to the prepubic tendon.
4. Rupture of the prepubic tendon occurs during the last 2 months of gestation.
5. In the mare and occasionally in the cow it is preceded by a marked tense, painful edema, 3 to 5 inches thick, on the abdominal floor, starting at the udder and extending to the xiphoid region.
6. Severe edema of the abdominal floor in the mare in advanced pregnancy should always be viewed seriously.
7. Physiological edema of the abdominal floor in the cow is common and does not indicate a possible weakness or rupture of the abdominal floor as in the mare.
8. Rarely massive hematomas in the region of the bovine udder may be mistaken for rupture of the prepubic tendon.
9. The rupture is predisposed by the increased weight of the gravid uterus on the abdominal floor and possible degenerative changes due to the edema and weight.
10. Occasionally due to violence or trauma, the condition occurs suddenly without the development of edema.
11. Twins, hydrops of the foetal membranes, foetal giants in prolonged gestation as in veratrum poisoning in ewes, favour rupture.