

## 2024 Batch-Lecture No. 23

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### DISORDERS OF GESTATION PERIOD

Disorders related to gestation period comprises of following disorders:

1. Abortion,
2. Mummification of foetus,
3. Maceration of foetus,
4. Extra-uterine pregnancy or foetus,
5. Dropsy of foetal membranes and foetus,
6. Torsion of uterus,
7. Vagino-cervical prolapse,
8. Paraplegia,
9. Abdominal hernia hysterocoele,
10. Miscellaneous.

#### ABORTION:

1. Abortion is the expulsion from the uterus of a living foetus before it reaches a viable age, or more commonly the expulsion of a dead foetus of recognizable size at any stage of gestation.
2. Many fertilized ova, embryo, or early foetuses may be aborted without being seen.
3. This is especially true in beef cattle, sheep and other animals not closely observed.
4. Early death and unseen expulsion of the ova, embryo or foetuses is usually classified as infertility.
5. Early death of the fertilized ova may be associated with regular estrous cycles.
6. Irregular or prolonged period without estrum may be caused by the death and unobserved expulsion or absorption of older embryos or foetuses.
7. Thus through common usage the term abortion has come to mean the expulsion of non viable or dead foetuses of recognizable size.

8. In the cow and mare, pregnancy usually progresses for 1.5-3 months before the expelled foetus is large enough to be recognized.
9. The animal usually fails to show estrum for a period long enough for the owner to believe that conception had occurred.
10. Any abnormal discharge from the vulva should be investigated and the animal observed for subsequent period of estrum.
11. In the cow, abortions occurring before the fifth month of gestation are seldom followed by retention of the placenta, but those occurring after are frequently characterized by retention.
12. The nature of causative agent of the abortion may determine the degree of damage to the foetal membranes and endometrium and the frequency of retained afterbirths and sterility that follows the abortion.
13. Abortions are usually caused by agents affecting the foetus or its placental membranes or both.
14. Because of the intimate contact between the foetal and maternal placentae, disease of the former is closely reflected in the later.
15. Agents causing a severe stress reaction in the dam may also cause abortion.
16. Many single factors or combinations of factors may cause abortion in the various animals.
17. Economically, abortions are of great concern to the farmer, because the foetus is lost, a prolonged period of uterine disease and sterility may follow, the unproductive female must be maintained for a long period or sold and if the cause of the abortion is infectious, it threatens the rest of the herd.
18. Diseases of the foetus and pregnant uterus do not always result in foetal death. The foetus may be expelled prematurely or at term and live or it may be weak and diseased and die shortly after birth.
19. In most abortions the foetus dies in the uterus and is expelled with 24 to 72 hours by which time varying degrees of post-mortem decomposition or autolysis has developed.
20. Sterile autolytic changes of the foetus after its death and before its expulsion have been described.
21. At 12 hours after death the foetal corneas are cloudy and grey.

22. At 24 hours the kidneys are soft and the abomasal contents are cloudy, mucoid and yellowish.
23. From 36 to 96 hours after foetal death, colour changes occur in the skin, the subcutis is gelatinous and blood tinged; the liver is soft and abomasal contents are cloudy, mucoid and reddish.
24. The various agents causing abortion may be classified and groups that include:
  - i. Physical Causes,
  - ii. Genetic or Chromosomal causes,
  - iii. Nutritional Causes,
  - iv. Chemical, drug or toxic causes,
  - v. Hormonal Causes,
  - vi. Miscellaneous Causes and
  - vii. Infectious Causes.
25. The infectious causes are most important and include bacterial, viral, fungal and protozoal agents.

#### ABORTION IN CATTLE

26. In cattle herds an incidence of abortion of more than 2 to 5 percent should be viewed seriously and efforts made to determine its cause so that proper methods of control may be instituted.
27. Unfortunately at the present time, in areas where the incidence of brucellosis is very low, only 20 to 25 percent of the aborted bovine fetuses and membranes submitted to a competent diagnostic laboratory yield a definitive diagnosis of the causative agent.
28. In some instances serological testing of aborting cow at the time of abortion and two to three weeks later may be helpful by the presence of a rise in titre for a certain infectious agent between the first and second samplings.
29. A single serologic test is often of questionable value as the time of the infection in most instances is not known.
30. One of the main reasons for the failure of cultural or histological tests on promptly submitted, well protected, chilled or frozen fetuses and membranes is the degree of autolysis undergone by the fetus and membranes after intrauterine death and before expulsion.

31. The use of fluorescent antibody technique developed in recent years has been of definite assistance in the diagnosis of certain infectious causes of abortion.