



CVE – AGMOOCS - TANUVAS



# LESSON II- CONGENITAL AND ACQUIRED ANOMALIES OF UTERUS

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# UTERUS UNICORNIS



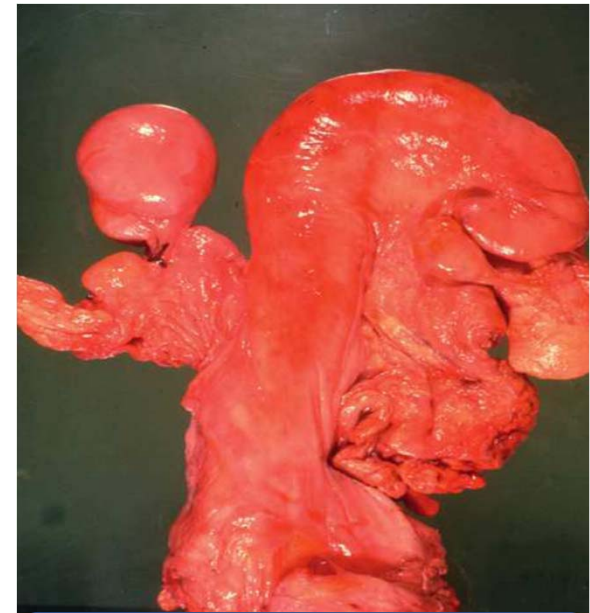
- Segmental aplasia involving the uterine horns is not uncommon and if **only one horn is involved**, the condition is called a uterus unicornis.



**Uterus Unicornis**

Congenital absence of right horn. Segmental aplasia of the paramesonephric duct. Both ovaries are present and functional. However when ovulations occur in the ovary unaccompanied by the horn, the CL fails to regress due to lack of uterine luteolysin.

(Source: Drost Project)

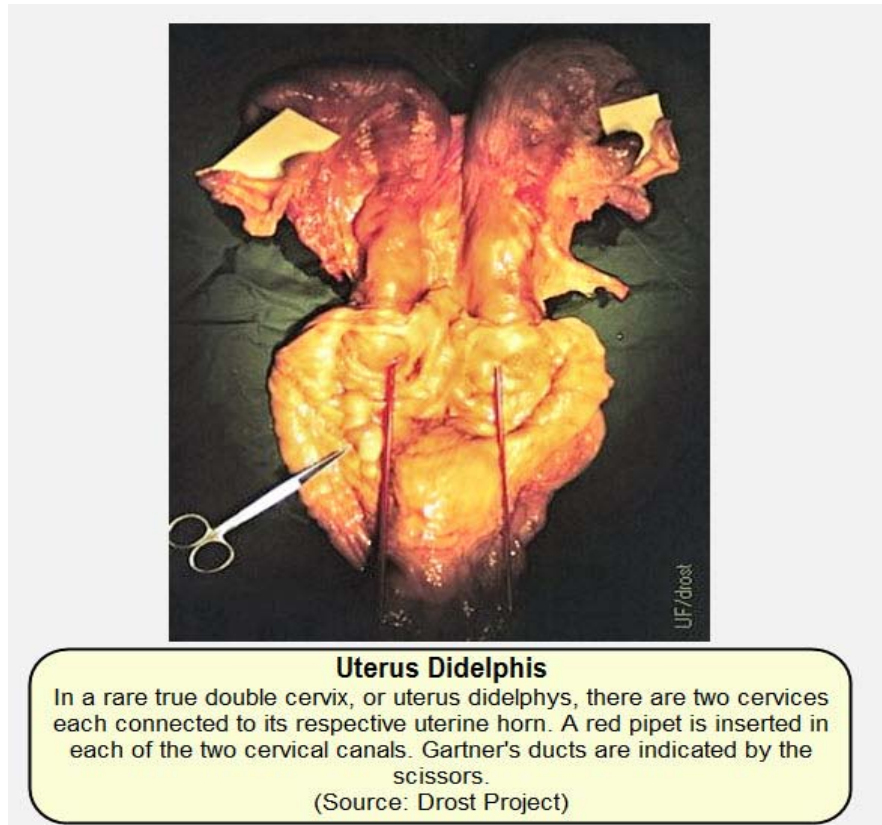


**Uterus Unicornis-Congenital absence of left uterine horn**



# UTERUS DIDELPHYS

- Complete failure of fusion , so there is a **double cervix, and each uterine horn connects with the vagina by a separate cervical canal.**
- There is often also a division of the cranial portion of the vagina, as this is also derived from the paramesonephric ducts.
- Such animals may conceive, providing that insemination takes place into the horn ipsilateral to the ovulation; and carrying calves to term and giving birth normally.



**Uterus Didelphis**  
In a rare true double cervix, or uterus didelphys, there are two cervixes each connected to its respective uterine horn. A red pipet is inserted in each of the two cervical canals. Gartner's ducts are indicated by the scissors.  
(Source: Drost Project)



## CONGENITAL LACK OF ENDOMETRIAL GLANDS



- Congenital lack of endometrial glands in the bovine uterus has been observed in a few heifers.
- These heifers exhibited **a failure of estrum and a retained or persistent corpus luteum apparently due to a failure of the endometrium to produce the luteolytic factor or prostaglandin necessary for the involution of the corpus luteum.**
- Manual removal of the corpus luteum results in estrum in about 3 to 4 days but the next corpus luteum also persists.
- Whether this is genetic or congenital is not known.



# INFLAMMATION OF UTERUS



- **Endometritis**- Inflammation of endometrial layer of uterus
- **Metritis**- Inflammation of myometrium of uterus
- **Perimetritis**- Inflammation of serosal layer of uterus
- **Parametritis**- Inflammation of adjacent structures to uterus
- **Sclerotic metritis**- Inflammation of all three layers of uterus and fibrosis
- **Chronic endometritis**- Chronic Inflammation of endometrium



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# ENDOMETRITIS, METRITIS, PERIMETRITIS, PARAMETRITIS AND SCLEROTIC METRITIS



**Endometritis**



**Perimetritis**



**Parametritis**



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# CHRONIC ENDOMETRITIS AND ENDOMETRIAL HYPERPLASIA



**Chronic metritis**



## **Bilateral Cystic Endometrial Hyperplasia**

Cystic endometrial hyperplasia may develop after chronic exposure to estrogens such as phytoestrogens or estrogenic implants. It may also be a sequela to chronic cystic follicular degeneration or granulosa cell tumors.

(Source: Drost Project)



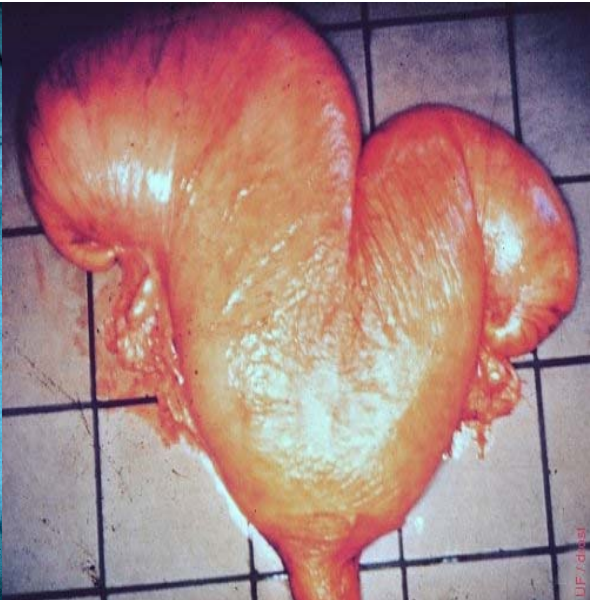
# HYDROMETRA, MUCOMETRA AND PYOMETRA



**Hydrometra**  
Fluctuant thin walled uterus with hydrometra as a result of occlusion by an anomalous cervix.  
(source: Drost Project)



**Mucometra**



**Pyometra**

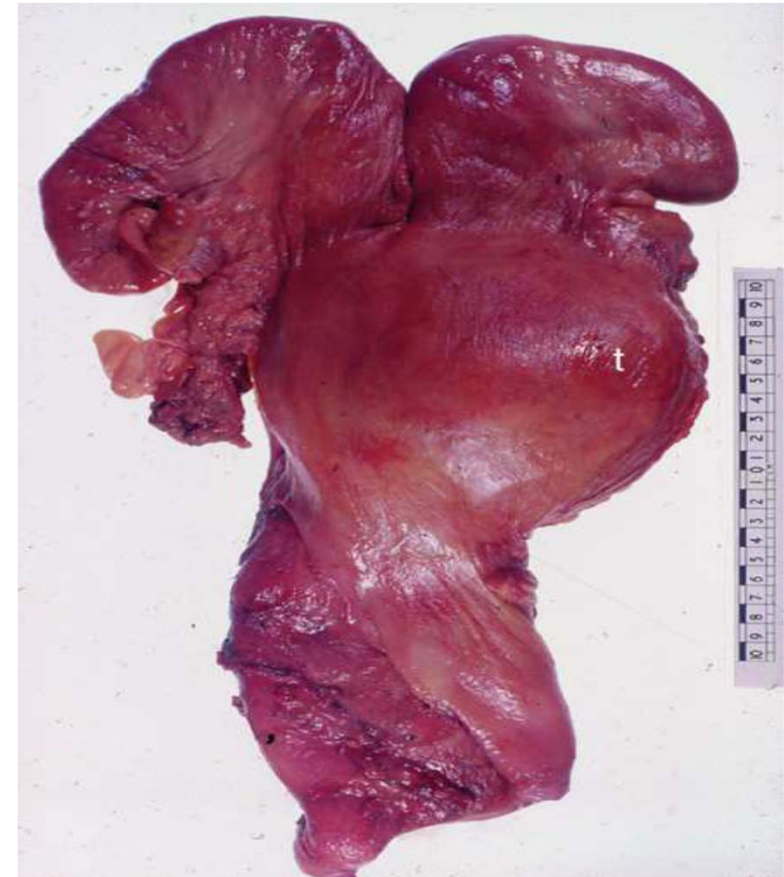




# UTERINE TUMOURS



- Tumours of the uterus are **rare in cattle**.
- Benign tumours of mesenchymal tissues are the most common.
- **Leiomyomas, fibromyomas, fibromas, lymphosarcomas and adenocarcinoma** of the uterus in cattle- accounted for 77% of tumours.
- Often incidental findings at the time of slaughter
- Often large and can potentially **be mistaken for the presence of a mummified fetus on palpation per rectum**.
- Occasionally, the tumours are massive.
- Adenocarcinomas present as **moderately enlarged, firm, constricted lesions of the uterine wall** and have a high rate of metastases to the lung and abdominal structures.
- Affected animals often present clinically as having chronic wasting disease.



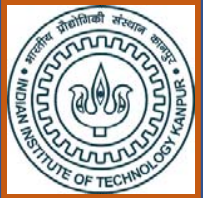


# UTERINE ADHESIONS

- Uterine adhesions are a common sequel of **perimetritis**.
- Adhesions may be present as **fibrinous tags over the surface of the uterus, adhesions that involve the ovarian bursa, or adhesions to other pelvic/abdominal viscera**.
- A similar lesion may follow uterine rupture or retention of the fetus after dystocia.
- A troublesome sequel to **Caesarean hysterotomy** is adhesion of the uterus to the omentum, intestines, or abdominal wall, or ovarian bursal adhesions that occur when infected uterine fluids contaminate the bursa during surgery.
- Such lesions are frequently **associated with sterility**



Uterine adhesions



## SUMMARY OF DAY 2 LECTURE

- Uterus Unicornis
- Uterus Didelphys
- Congenital Lack of Endometrial Glands
- Endometritis, Metritis, Perimetritis, Parametritis and Sclerotic Metritis
- Chronic Endometritis and Endometrial Hyperplasia
- Hydrometra, Mucometra and Pyometra
- Uterine Tumours
- Uterine Adhesions