



# Diagnostic procedure in infertility investigation



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# Infertility in Animals

- The ultimate manifestation of infertility is failure to produce offspring.
- In polytocous species, a subnormal number of offspring also constitutes infertility.
- **In females, infertility may be due to:**
  - Failure to cycle
  - Aberrations of the estrous cycle
  - Failure to conceive
    - Prenatal or perinatal death of the conceptus

# Diagnostic Approach to Infertility in Animals

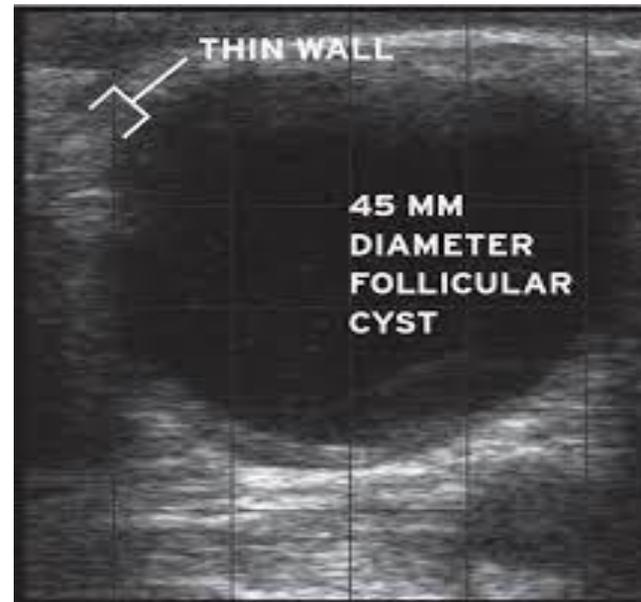
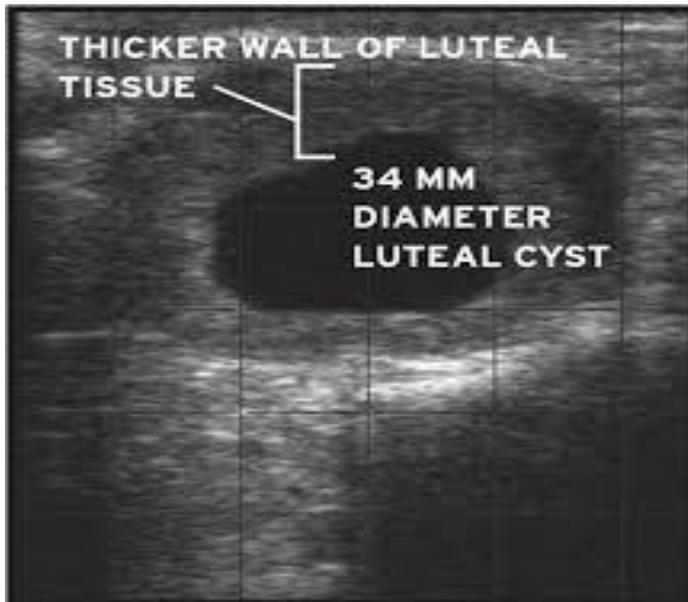
- The first diagnostic step is to establish the etiologic role of the female and the male animal.
- Human involvement in the reproductive process, -- observation of estrus, -- preservation of semen, -- insemination methodology, is a potential source of error.

- Diagnostic methods have been developed **to test the anatomic and functional soundness** of both sexes. These include:
  - a complete history
  - clinical examination
  - diagnostic aids such as:
    - **endoscopy**
    - **ultrasonography**

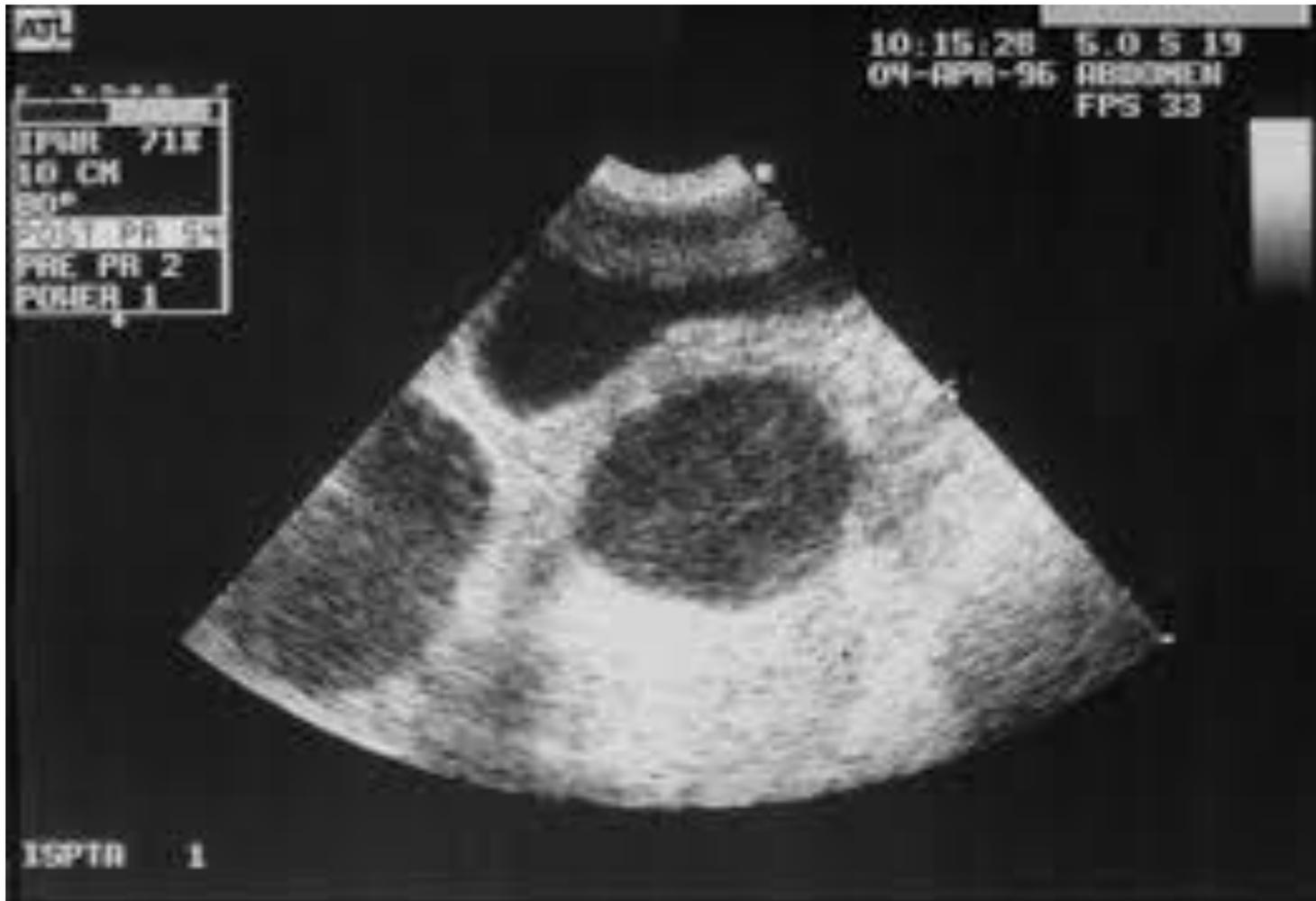
# Cystic ovaries

## ➤ Follicular & luteal cysts

Follicular cyst can be differentiated from a luteal cyst by its **thin wall** and **uniformly anechogenic follicular fluid**



# Canine Pyometra



# Laboratory tests

- **Hormone assays** → Ovulation in Bitch, Cystic condition in cow (**progesterone assays**)
- **Microbiology** → Metritis, Endometritis, Pyometra.
- **Cytology** → Estrus detection in bitch,
- **Fern Pattern**: Estrus detection in cow
- **Semen evaluation**

- The choice of diagnostic methods is determined by the species as well as by the size of the animal.
- Decisions of laboratory tests are based on history and information gained during clinical examination.
- In each case of reproductive failure, the diagnostic plan should provide evidence to establish the role of the female, the male, and the breeding management program.

Furthermore, there often is a time interval between when a failure occurs and when it becomes apparent. Examples are intervals between unsuccessful service and return to estrus or between fetal infection and subsequent abortion. This lag period may allow recovery, yielding negative results on examination. Interpretation of results also must account for species differences and, in species with a seasonal reproductive pattern, the fact that infertility may be physiologic during certain parts of the year.



*THANK YOU*