



ANESTRUM

(Anestrus in dairy animals)

Lecture 5

True anestrus diagnosis and treatment; Prevention & Summary



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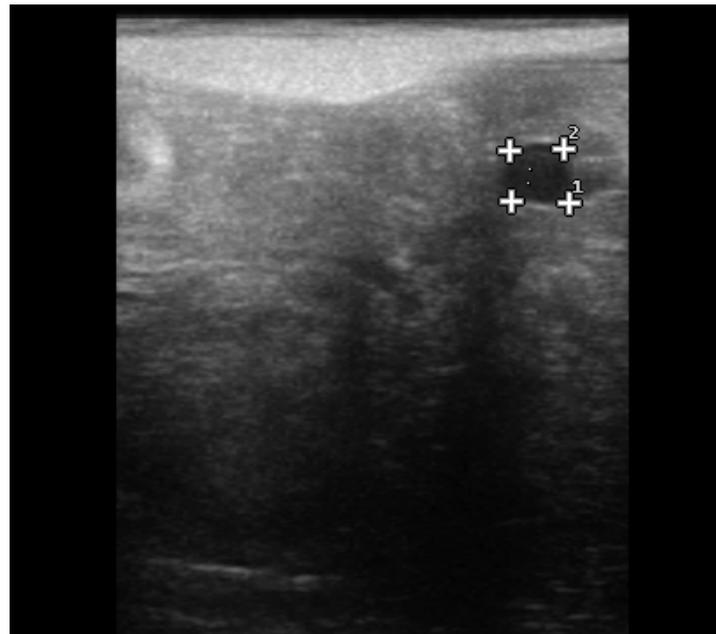
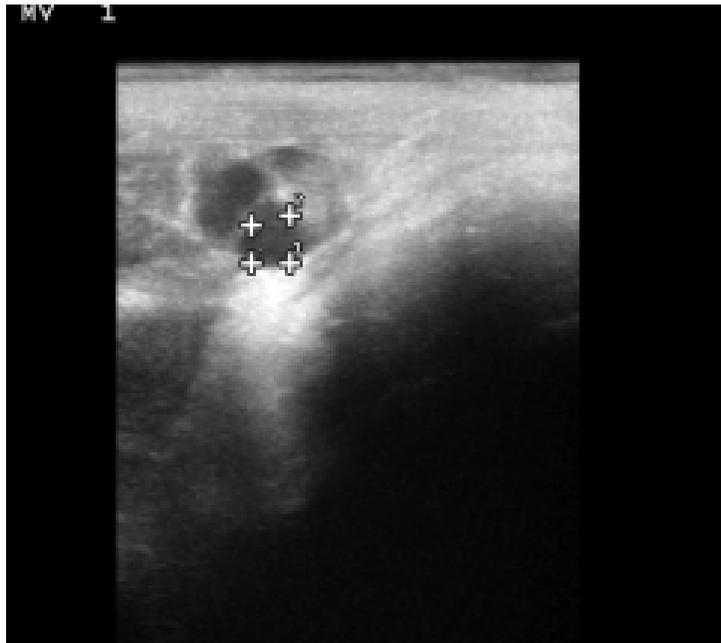
- ❖ History
- ❖ Clinical signs
- ❖ Rectal examination
- ❖ Ultrasonography

History: Based on the information viz., failure of displaying the overt signs of estrus

Rectal Examination

- Small and smooth ovaries in buffaloes - spindle like.
- Should be confirmed by repeated examinations at 10 days interval.

Ultrasonography: small to developing follicles without CL



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Progesterone Estimation: Presence of basal level (0.5–1 ng/ml) of progesterone in the blood samples at an interval of 8–10 days further confirms the diagnosis.



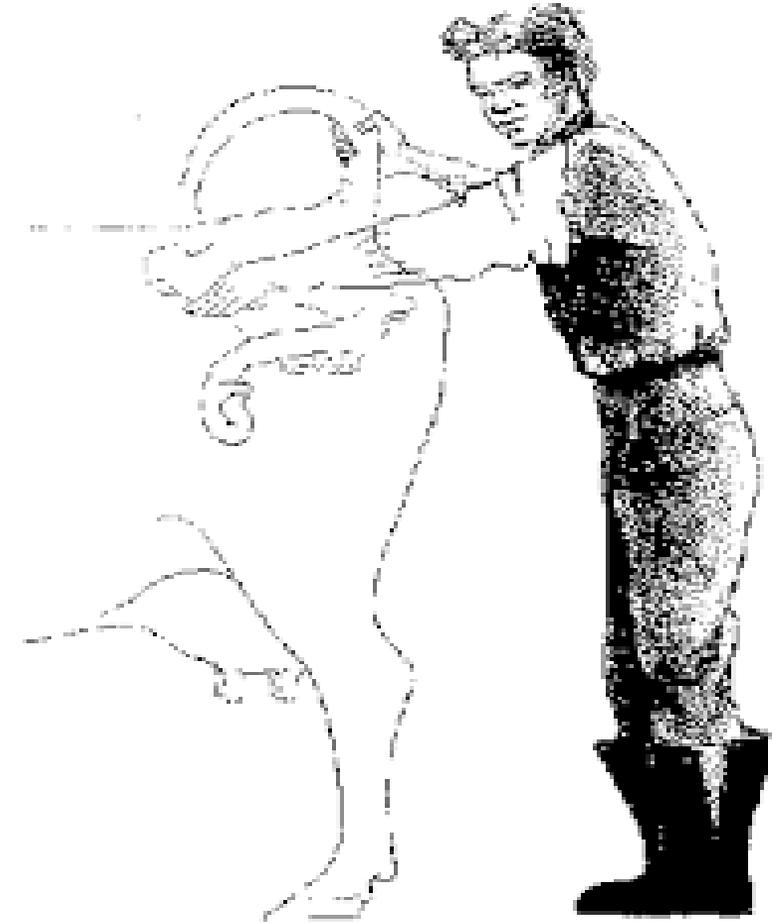
- ❖ Improve nutrition
- ❖ Supplement minerals



- ❖ Management- Foggers 20 min/time-3times/day



- ❖ Utero–Ovarian Massage
- ❖ Lugol’s Iodine
- ❖ Improve managerial practice



Managemental care in small farm conditions

- Utero–Ovarian Massage: Utero–ovarian massage is the oldest, simplest, cheapest and effective method to induce estrus in anestrus cattle and buffaloes
- Eradication of internal and external parasitism.
- Proper housing.
- Elimination of stressful factors

Treatment-Hormonal approach

- **GnRH** 0.5 mg. may be repeated after 10 days
- GnRH analogue **Buserelin** 0.02 mg.
- PMSG or FSH is not advisable as they can cause superovulation
- Short term progestogens- **CIDR, PRID or Ear implant** induces heat even in anestrus animals.

Treatment-Hormonal approach

- **Progesterone** injection followed by hCG or combination of progesterone + PMSG + estrogen.
- **Clomiphene citrate.** 300 mg. daily for 5 days drenched as suspension after drenching of CuSO₄ solution.
- **Insulin Based Treatment:** Use of insulin for induction of estrus in animals either alone or in combination is a fairly recent development and results are very encouraging. The recommended dose is **0.25 IU/kg** body weight subcutaneously for 3–5 days

Plant Based Heat Inducers

- ❖ Plants synthesize varieties of phytochemicals such as alkaloids, glycosides, terpenes and tannins (secondary metabolites) as a part of their normal metabolic activity and many of these have therapeutic actions when consumed by animals.



Murraya koenigii (curry leaves)



Nigella sativa (kalonji),



Saraca asoca (Ashoka),



Bambusa aruninacea,

commercial Heat Inducers

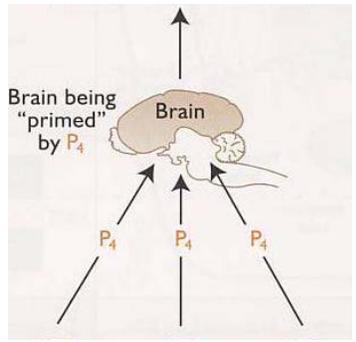
1. PRAJANA (HS)
2. JANOVA
3. HIMFERTIN



- Maximize the appetite at and **after calving**
- Provide a **palatable well balanced** and highly digestible diet to allow cows to meet their nutritional requirements
- Maintain **immune** function
- Maintain **calcium and magnesium** at and after calving.
- Must be maintained at **less stress environment** around parturition
- Reduce the **weaning** period

Anovulatory ovaries (LH & E_2)

Ovulatory Response



Anestrus



LH

Progesterone Therapy

Progesterone priming
Better estrum

Timely ovulation
Quality of CL

Economic impact(per month)

Feedcost of the animal	=Rs.5790
Veterinary care	=Rs.500
Total	=Rs.6,270

Animal untreated for upto one yr,even there will be loss of calf & also milk yield



Better Conception

✓ **Diagnosis**

✓ **Treatment**

Hormonal and Non Hormonal

✓ **Heat Inducers**

✓ **Prevention**

Thank you