



## Induction of Parturition

**Induction of parturition:** is the process of stimulation of the parturition by using medication or nonmedication methods.

### Reasons for induction include:

1. Prolonged gestation period more than normal (fetal anomalies).
2. In some cases, causing risk to the dam in remaining the pregnancy (hydroallantois, bleeding).
3. Premature rupture of the membranes, but labor does not start within an exact time.
4. Fetal death (mummification and maceration) and previous history of stillbirth.
5. Twin pregnancy in large animals (equine).
6. Diabetes, high blood pressure (especially in women).

### Medication (using the hormones):

1. **Estrogen**: all species.
2. **PGF2 $\alpha$** : Swine, cattle, and sheep
3. **Oxytocin**: women, equine
4. **Dexamethasone (synthetic cortisol)**: all species, and takes 2 to 3 days



## Induction parturition in cow

- **Dexamethasone + PGF<sub>2α</sub>:** induces within 35±2 h., a high incidence of retained placenta. To avoid this problem, we have given estrogen before Dex.
- **PGF<sub>2α</sub>:** works near term but may require long-acting or 2 doses, used to remove the mummified fetus.

## Induction parturition in ewe

- **Dexamethasone:** Parturition within 24 – 72 h, no retained placenta problem
- **Lutalyse (PGF<sub>2α</sub>):** best to abort before day 50, multiple injections to induce parturition near term + estrogen.

## Induction parturition in sow

- **PGF<sub>2α</sub>:** Parturition within 29-48 h, PGF<sub>2α</sub> followed by **oxytocin** 24 h later if delays in the next **piglet** born to decrease stillborn occur in large litters or after extended parturition.

## Induction parturition in Mare

- **Oxytocin after day 320:**
  - Problems:
    - Foal may require extensive care in the first few weeks of life (lung immaturity).
    - Little amount of the colostrum in the mare.

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